Acknowledgments

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We encourage you to comment on these materials. Please give your suggestions to those teaching the program in which you are now enrolled, or forward them to the Midwest Consortium for Hazardous Waste Worker Training, University of Cincinnati, P.O. Box 670056, Cincinnati, Ohio 45267-0056 or click on ‘contact us’ at http://med.uc.edu/eh/academics/training/mwc.

Warning

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Disclaimer

The Occupational Safety and Health Administration (OSHA) rule to help assure worker health and safety at hazardous waste sites requires annual refresher training for those working on hazardous waste sites. Refresher training requirements are specified in 29 CFR 1910.120(e)(8). This program is intended to meet the requirements for annual refresher training.

Additional training is necessary to perform many activities. These activities include implementing the emergency response plan, identifying materials using monitoring instruments, selecting protective equipment, and performing advanced control, containment or confinement. Additional site-specific training for emergency response must be provided so that you understand how to recognize and respond to alarms at the site and can carry out any role which may be assigned during a response.

For information about this matter, consult the training instructor and/or your company safety and health plan or your company health and safety representative.
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- **GBX Oil**
  - Hazards: organic solvents, sludge

- **Brunswick Maint.**
  - Hazards: metals, asbestos, resins, sludge

- **Wadda Messa**
  - Hazards: pesticides, explosives

- **XYZ**
  - Hazards: lacquers, acids, resins, TDI, solvents

- **XYZ Bldg 2**
  - Hazards: lacquers, sludge, HDI

- **Longgone Landfill**
  - Hazards: Acid, aromatic solvents, PCB-contaminated oil, arsenic
Introduction

This program follows the 40-Hour Site Worker program. The goals of the program are to:

- Review basic skills and knowledge about hazardous waste site work
- Engage in learning and problem-solving activities that will help to improve safety and health conditions on a site
- Implement safe work practices
- Demonstrate use of personal protective equipment for site work
- Implement procedures in a safety and health plan to control hazards
- Meet training requirements in Section (e) (8) of the Hazardous Waste Operations and Emergency Response Standard, 19 CFR 1910.120

Exercises are used throughout the program to encourage trainees to think about the potential hazards on sites and develop and implement exposure control strategies.

Delivery of this program requires that the facilitator present a site work situation with waste and remediation chemical hazards and resources for the activities, including a Mock Safety and Health Plan.

If the remediation activity is conducted in an arena, a Site Safety Plan is required and anyone in Levels A or B must have medical clearance for training.

Performance measures are used throughout to document skills.

The following guidance is provided to instructors preparing to present the program.

Sample Agendas

There are two important exercises that can be incorporated into this refresher: HCS 2012 and 8HR Risk Management (see http://med.uc.edu/eh/academics/training/mwc/exercise-resources). Three sample agendas, tailored to various versions of this refresher, are presented on the following pages.
**Agenda 1 - Basic**

**Introduction**

Your experience is important to training

    Activity—Thinking About Past Years in Waste Site Work (Looking Back and Forward from the Modular Refresher here: [http://med.uc.edu/eh/academics/training/mwc/exercise-resources](http://med.uc.edu/eh/academics/training/mwc/exercise-resources))

**Getting Ready—Hazard assessment and control**

    Activity—Site Characteristics
    Activity—Hazard Assessment
    Activity—Setting Work Zones
    Activity—Selecting PPE and Air Monitoring

**Plan a Work Activity**

    Activity--Work Briefing
    Activity—Double check PPE and Air Monitoring Selection

**Get to Work Simulation**

    Activity—Entry Briefing
    Activity--Donning/Doffing PPE
    Activity—A work activity
    Activity—Decontamination

**Critique and Follow-up**

    Activity—Debrief and Critique

**Closing**
Agenda 2 - HCS 2012 is included in the training

Introduction

Your experience is important to training

   Activity—Thinking About Past Years in Waste Site Work (Looking forward and Back from the Modular Refresher here: http://med.uc.edu/eh/academics/training/mwc/exercise-resources)

Getting Ready—Hazard assessment and control

   Activity—Site Characteristics
   Activity—HCS2012 (insert HCS2012 exercise)
   Activity—Hazard Assessment
   Activity—Setting Work Zones
   Activity—Selecting PPE and Air Monitoring

Plan a Work Activity

   Activity--Work Briefing

   Activity—Double check PPE and Air Monitoring Selection (omit, but cover verbally)

Get to Work Simulation

   Activity—Entry Briefing
   Activity--Donning/Doffing PPE
   Activity—A work activity
   Activity—Decontamination

Critique and Follow-up (cover the idea, but complete only as time allows)

   Activity—Debrief and Critique

Closing
Agenda 3 - HCS 2012 not needed and group is candidate to develop Risk Reduction Plan

Introduction
Your experience is important to training

   Replaced by exercise at end of program (see below)

Getting Ready—Hazard assessment and control

   Activity—Site Characteristics
   Activity—Hazard Assessment
   Activity—Setting Work Zones
   Activity—Selecting PPE and Air Monitoring

Plan a Work Activity

   Activity--Work Briefing
   Activity—Double check PPE and Air Monitoring Selection (omit, but cover verbally)

Get to Work Simulation

   Activity—Entry Briefing
   Activity--Donning/Doffing PPE
   Activity—A work activity
   Activity—Decontamination

Critique and Follow-up

   Activity—Debrief and Critique
   Activity—Developing a Plan to reduce risk (complete the 8HR Risk Management Exercise here: http://med.uc.edu/eh/academics/training/mwc/exercise-resources. Activity 1 in the Risk Management Exercise addresses past activities, followed by identifying a hazard to remediate and developing a plan.)

Closing
Resources

The following are resources to be used in program development, and delivery as appropriate for the agenda used:

- Participant Guide
- Facilitator Guide from the 40-hour site worker program
- Hard copy or databases to find information (e.g., NIOSH Pocket Guide, SDS)
- HCS2012 Exercise
- OSHA Quick Cards
- 8HR Risk Management Exercise

Instructor Preparation

- Review site safety plan for training facility (Appendix A is Plan from 40H)
- Review relevant sections of the 40-Hour Site Worker Program Facilitator Guide
- Prepare lesson plan for material/sections to be presented
  - Relevant sections of a site health and safety plan
    - Obtain from an employer
      - Include site map
    - Prepare mock version (see below for factors to consider)
      - Include site map
    - Use a mock site from a previous scenario-based refresher (See Appendix D)
<table>
<thead>
<tr>
<th>Factor</th>
<th>Initial Condition</th>
<th>Any change expected?</th>
<th>Describe change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather conditions</td>
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</tr>
<tr>
<td>Topography</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surrounding vegetation, waterways, highways, drains</td>
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<td></td>
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<tr>
<td>Site buildings and layout (map is best)</td>
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<tr>
<td>Time of day</td>
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<tr>
<td>Overall description of work in progress</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Safety hazards present or anticipated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazardous material(s) on site</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Hazardous remediation materials</td>
<td></td>
<td></td>
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<tr>
<td>Emergency Alerting signals</td>
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<tr>
<td>Emergency Response Plan</td>
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<tr>
<td>Incompatibles nearby</td>
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<td></td>
</tr>
<tr>
<td>PPE needed</td>
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</tbody>
</table>
Develop lesson plan using:

- reconnaissance from the employer(s)
- evaluation report from last presentation to this group (contract program only)
- select work activity(s)
- assemble required SOPs/SOGs (minimum: Hazard Assessment, PPE, Monitoring, Work Task(s), Decon, Debriefing/Critique)

Standard lesson plan forms are shown in Appendix B

Assemble resources—SDS, NIOSH Pocket Guide, glove charts, Levels of Protection graphics, etc.

Copy Performance Checklists and the Hazardous Materials Fact Sheets for participant use (these will be retained as part of the program file). See Appendix C for set of materials.

NOTE: Successful Completion for this program is defined as:

- Attendance
- Activities Performance Skills Checklists
- Simulation Performance Skills Checklists
- >=70% on Hazardous Material Fact Sheets (individual assessment of each participant)

All must be documented in the Program File
• Complete ‘correct’ Hazardous Materials Fact Sheets based on the scenario for the participants to use in the activities

• Copy any supporting exercises needed (Looking Back and Forward, HCS, Risk Management) depending on agenda

• Print or be prepared to display the final agenda, as part of program introduction

• File agenda and lesson plan including site description, medical clearance for training needs, training site safety plan per Training Center procedures

• This becomes the Facilitator Guide documentation for the program

• Assure there is time for the following, in order to determine successful completion:
  o Review attendance documentation
  o Grade individual Hazard Materials Fact Sheet exercise answer sheets (if anyone scores <69%, implement remediation policy)
  o Collect Activities Performance Skills Checklists to be included in program file
  o Collect Simulation Performance Skills Checklists to be included in the program file

Training center personnel will assure that all registration and evaluation materials are available for use in the program, and processed appropriately. Note: if the Risk Management exercise is used, the standard evaluation forms go to ESC and the Plan and supporting materials go to Tim Hilbert as shown in the Facilitator Guide for that exercise.

Run the activities, as shown in the Participant Guide for the site characteristics, hazards and work activity(s) selected. Use Summary section of each section to review importance and facilitate discussion.
CLOSING AND PROGRAM EVALUATION

This concludes the program.

Time Requirement: .25 hour
Number of Instructors: 1

Materials

The following materials will be needed:

- Chalkboard, marker board or easel with paper
- Markers or chalk
- Evaluation forms

Objectives

- Review activities conducted as part of the site work scenario
- Answer questions
- Review need for annual refresher
- Thank participants
Teaching Methods

Discussion

Suggested Instructor Preparation

- Review agenda and chemicals included in the scenario
- Assess ‘successful completion’ for each participant

Minimum Content Requirements

The following are minimum content requirements for the section:

- Answer questions
- Participants complete and hand in evaluation forms
- Thank participants

Questions You May Be Asked

“What happens if I do not take a refresher?” If needed for a job, you will not be up-to-date and may be required to take this program again. Some employers ‘stretch’ the requirement to 18 months, if the refresher is taken ASAP, but it is a gamble.

Presentation of the Session

Thank participants for attending the program.

This is an opportunity for final questions and to assure that the list of questions generated on day 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.
NOTE: Modify the resource below from the 40H program for the site description and task(s) to be included in the Refresher program.

**Site Simulation—Health and Safety Plan**

**Trainer Qualifications for Site Simulation**

1 lead instructor and 3 or more helpers are needed at a minimum for the mechanics of conducting the simulation. See the NIEHS Minimum Criteria for most recent guidance for specific tasks included in the simulation (download from key documents at http://tools.niehs.nih.gov/wetp/).

All personnel are medically certified for use of respiratory protection and unrestricted physical activity. At least one instructor is certified in First Aid and CPR (if EMS is on site, this requirement can be waived). Specialized training in heat stress related illnesses is recommended. See the OSHA heat stress guidance at https://www.osha.gov/SLTC/heatillness/index.html.

The lead trainer must have successfully completed formal, documented training or otherwise possess the skills, ability and knowledge gained through actual experience to recognize the use of and to anticipate the problems in the use of Levels A, B and C PPE.

Personal work experience in the use of Levels A, B and C protection is recommended. The lead trainer should have prior experience in training personnel in the use and decontamination of Levels A, B and C PPE. All trainers must have a working knowledge of the Emergency Response Plan.
Emergency Response Plan for the Conduct of the 40H Site Simulation

Introduction

The Site Simulation Exercise is a complex multi-part exercise that integrates much of the training of the 40-hour Site Worker Program into a hands-on simulation during which participants don and perform tasks in Levels A, B and C PPE.

As with any hands-on simulation or exercise there are numerous potential safety hazards (e.g., crushed by a falling drum). In order to assure that instructors and participants are aware of these potential hazards and how to react, the minimum safety requirements shown below must be implemented during every Site Simulation Exercise.

Safety Briefing

Before the Site Simulation Exercise is started, all program attendees will receive a safety briefing that covers the contents of this plan. (You may want to have participants sign an acknowledgement of participation in the briefing.) If in-suit radios are not used, a clear set of hand signals must be established, verified and used during the Exercise.

Emergency Communications

- Emergency communication equipment (telephone or 2-way radio) will be present on the site.
- Communication equipment will be verified to be working before the Exercise begins.
- Emergency telephone numbers and directions to the site will be posted at each telephone on site.
- Maps to the nearest treatment center should be posted in the event it is elected to transport a non-emergency case for treatment.

Emergency Medical treatment

- At least one instructor present on the site shall have completed at least the equivalent of the Red Cross Basic CPR course (8 hours).
- At last one instructor present shall have current certification in the Red Cross Basic CPR Course or its equivalent (8 hours).
- A standard First Aid Kit shall be available for use during the Site Simulation Exercise.
• Use of a standby EMS crew is preferable (if available) instead of the above.

Site Access
• There shall be at least two entrance/exit points to the simulation site.
• If the Site Simulation Exercise is conducted in a public area, a sign shall be posted identifying it as a training simulation.

Physical Hazards
• Heavy lifting and physical exertion will be required. Extra caution is required because of the additional stresses from PPE wear. Use of proper lifting technique is essential.

• The bulky, heavy PPE increases potential for falling because it restricts range of motion and changes the center of gravity. The extra weight also increases the risk of injury from a fall. These problems will be magnified if the simulation site is not on level ground. A non-suited safety person must stay close to each suited person.

• Handling and moving drums is always hazardous but even more so in PPE. All instructors and course attendees on site are required to wear safety shoes. Extra care and attention is required to protect the hand from pinching or crushing injuries.

Heat Stress
• Heat stress due to wearing heavy equipment and chemical protective suits must be a major concern in summer months and cannot be ignored even in cold weather.

• All attendees should be familiar with heat stress from classroom presentations and be able to recognize it.

• Adequate drinking water and electrolyte replacements (e.g., Gatorade) must always be available. At high heat stress levels up to two liters of liquid per hour may be required by each person to maintain body fluid levels.

• Air temperature and humidity should be monitored before suits are donned. This information is available from the National Weather Service or the local airport weather station.
• The lead instructor on site must monitor heat stress condition and adjust work/rest times and breaks to insure everyone drinks enough fluid.

• All instructors and attendees must insure they drink adequate liquids to avoid becoming a heat casualty.

• Shading in the break area is recommended.

• Cool weather may present opposite problems, as the suit is removed a person could shill from cold air hitting the body.

Wearing level A and B

• Wearing Level A and B protection presents additional hazards which need attention:
  
  o Weight—the additional weight increases stress and affects mobility and balance
  
  o Claustrophobia—some people cannot be enclosed in a suit. They must be calmed and removed from the suit.
  
  o Hyperventilation—the stress of the suit or respirator causes some people to hyperventilate. They must be calmed and removed from the suit to restore normal breathing.
  
  o Breathing Rate—under stress the breathing rate increases and the SCBA tanks will empty faster than the rated time. This means less work can be accomplished.
  
  o Low Pressure Alarm—people wearing SCBAs should be reminded that the low pressure alarm does not mean the air is gone, but there is 3 to 5 minutes remaining. This additional reminder may help to prevent panic when someone’s alarm sounds.

• While wearing level A or B, each person shall have a ‘buddy’ within an arms length who is not suited and can react provide assistance in any emergency

• All SCBA face masks will be cleaned/disinfected between users

• All Level A training suits should be sprayed with a disinfectant and towel (paper) dried between users
Responsibilities

Instructors

- Insure that all issues listed in this plan have been discussed in class prior to the Site Simulation Exercise.
- Insure all participants are aware of the hazards, how to recognize and react to them.
- Have at least three instructors present at all times during the Exercise (four preferable). One shall be designated as lead and have overall responsibility for the exercise.

Attendees

- Be aware of hazards from classroom and hands-on training
- Be aware of all aspects of the site safety briefing
- Watch yourself and your fellow participants to try to avoid hazards.

Weather

In the event of adverse or inclement weather, the lead instructor must determine if the Exercise can be conducted without endangering participants substantially beyond the inherent risks of the Exercise under the best conditions. Weather conditions to be considered include but are not limited to excessive heat or cold, rain, snow, limited visibility, high winds.

Plans should exist for use of an alternate sheltered site to avoid disruption due to weather.

Emergency Stop

An emergency stop signal (e.g., hand position, air horns) that is separate and distinct form any signal used as a training stimulus will be used to terminate the exercise in case of an emergency.

All personnel on site must know the emergency top signal.
### Lesson Plan Form 1

<table>
<thead>
<tr>
<th>Teaching Methods for This Lesson Plan</th>
<th>Audiovisual Requirements</th>
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<tr>
<td>_ Lecture</td>
<td>_ Training handbook</td>
</tr>
<tr>
<td>_ Discussion</td>
<td>_ Supplemental handbook material</td>
</tr>
<tr>
<td>_ Question and answer</td>
<td>_ CD ROM</td>
</tr>
<tr>
<td>_ Hands-on simulation</td>
<td>_ Web Sites:</td>
</tr>
<tr>
<td>_ Team teaching</td>
<td></td>
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<tr>
<td>_ Small-group exercises</td>
<td>_ Easels and paper, chalkboards or marker boards</td>
</tr>
<tr>
<td>_ Case study</td>
<td>_ Hands-on simulation</td>
</tr>
<tr>
<td>_ Other (describe):</td>
<td>_ Other (describe):</td>
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<thead>
<tr>
<th>Reference Materials</th>
<th>Special Space or Facility Requirements</th>
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</thead>
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<tr>
<td></td>
<td>(List any room size or special facility regulations here, such as set-up areas, equipment storage concerns, etc.)</td>
</tr>
<tr>
<td>Suggested Discussion Questions</td>
<td>Suggested Instructor Preparation</td>
</tr>
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Lesson Plan Form 2

<table>
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<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 area will necessarily occupy more space than the column to the left.</td>
<td>e.g., page number in training notebook, section number of regulation, or audiovisual material.</td>
</tr>
</tbody>
</table>
Appendix C

Performance Skill Checklists and Hazardous Materials Fact Sheets

Performance Skills Checklists

Activity 2: Site Characteristics

Activity 4: Setting Work Zones and Communication

Activity 5: Selecting PPE and Air Monitoring Equipment

Activity 6: Work Briefing

Activity 8: Entry Briefing

Activity 9: Donning/Doffing PPE

Activity 10: A Work Activity

Activity 11: Decontamination

Hazardous Materials Fact Sheets

Waste

Remediation/support Chemical
Performance Skills Checklists

Trainee ID __________________

Performance Skills Checklist - Activity 2: Site Characteristics

Can you describe the following?

a. Topography........................................................................................ Yes   No
b. Hazardous materials present on the site and potential hazards ........ Yes   No
c. Potential hazards ............................................................................. Yes   No

Performance Skills Checklist – Activity 4: Setting Work Zones and Communication

1. Did you determine the following zones?

   a. Hot ................................................................. Yes   No
   b. Warm ............................................................. Yes   No
   c. Cold .............................................................. Yes   No

2. Did you establish a staging area? ........................................................ Yes   No

3. Did you notify everyone of the site alerting signals? ........................ Yes   No

4. List any gaps in the information provided:
Performance Skills Checklist – Activity 5: Selecting PPE and Air Monitoring Equipment

My/our work assignment __________________________________________________

Hazard(s)______________________________________________________________

1. What level of protection did you select for a needed role?
   Level A for ____________________________(insert role)
   Level B for ____________________________(insert role)
   Level C for ____________________________(insert role)
   Level D for ____________________________(insert role)

2. What CPC did you select?
   a. Suit (type/material) _____________________________
   b. Respirator/cartridge _____________________________
   c. Glove material
      ▪ Inner ______________________
      ▪ Middle _____________________ (if applicable)
      ▪ Outer ______________________
   d. Boots ______________________

3. What type of monitoring device did you select?
   a. pH ....................................................................................................... □ Yes □ No
   b. 4/5-Gas ............................................................................................. □ Yes □ No
   c. Detector tube ..................................................................................... □ Yes □ No
   d. Other ................................................................................................... □ Yes □ No
      Specify: ___________________
   e. None, because: _________________________________________
Performance Skills Checklist – Activity 6: Work Briefing

1. Were these tasks in the overall work plan?
   a. Site entry ............................................................................................ □ Yes □ No
   b. Material handling ............................................................................... □ Yes □ No
   c. Decon ................................................................................................ □ Yes □ No

2. Were site characterization method and results reviewed? ...................... □ Yes □ No

3. Were the following resources evaluated?
   a. Personnel ........................................................................................... □ Yes □ No
   b. Equipment/supplies ........................................................................... □ Yes □ No
   c. Information ........................................................................................ □ Yes □ No

4. Were these jobs assigned during this work?
   a. Project Manager ................................................................................ □ Yes □ No
   b. Safety and Health Officer ................................................................... □ Yes □ No
   c. Decontamination ................................................................................ □ Yes □ No
   d. Work Team I ...................................................................................... □ Yes □ No
   e. Back-up Work Team II ....................................................................... □ Yes □ No

5. Were the following used to minimize hazards?
   a. Training .............................................................................................. □ Yes □ No
   b. Barriers .............................................................................................. □ Yes □ No
   c. PPE .................................................................................................... □ Yes □ No
   d. Work practices ................................................................................... □ Yes □ No
Performance Skills Checklist – Activity 8: Entry Briefing

1. Were you part of briefing that covered the following?
   a. Site details □ Yes □ No
   b. Hazards □ Yes □ No
   c. Tasks □ Yes □ No
   d. Communications □ Yes □ No
   e. Emergency signals □ Yes □ No

2. Did you complete the following before initiating tasks?
   a. Review the SOG □ Yes □ No
   b. Buddy system □ Yes □ No
   c. Verify decontamination line is ready □ Yes □ No

3. Was there an opportunity to ask questions about all procedures? □ Yes □ No

Performance Skills Checklist – Activity 9: Donning/Doffing PPE

1. Did you inspect the PPE before donning it? □ Yes □ No □ N/A

2. Did your buddy make pull tabs when taping boots, pants, gloves, and sleeves? □ Yes □ No □ N/A

3. Did you perform a positive- and/or negative-pressure check of your respirator face piece? □ Yes □ No □ N/A

4. Did your buddy review the communications system you would use? □ Yes □ No □ N/A

5. Did you don the PPE ensemble completely using a SOG? □ Yes □ No □ N/A

6. Did you receive a pre-entry briefing? □ Yes □ No □ N/A

7. Did you perform an assigned task? □ Yes □ No □ N/A

8. Did you touch the outside of your suit while it was being removed? □ Yes □ No □ N/A
9. Did you properly remove your inner gloves? □ Yes □ No □ N/A

Performance Skills Checklist – Activity 10: A Work Activity

1. Did you select the proper PPE? □ Yes □ No □ N/A
2. Was hazard evaluation information provided? □ Yes □ No
3. Indicate the methods used to limit the exposure.
   a. Work practice □ Yes □ No
   b. Distance □ Yes □ No
   c. PPE □ Yes □ No
   d. Buddy system □ Yes □ No
4. Did you work in a manner to minimize contamination in the work area? □ Yes □ No
5. Did you use an air monitoring device to detect or measure exposure? □ Yes □ No

Performance Skills Checklist – Activity 11: Decontamination

1. Was all necessary decontamination equipment available? □ Yes □ No
2. Was the decontamination line appropriate for the contaminant? □ Yes □ No
3. Was one person in charge of the decontamination line at all times? □ Yes □ No
4. As a member of a team, did you assemble a decontamination line? □ Yes □ No
5. Did personnel going through decontamination always move toward cleaner areas? □ Yes □ No
6. Were decontamination workers wearing appropriate levels of protection? □ Yes □ No
7. Were personnel decontaminated according to the steps listed in the SOG? ................................................................. ☐ Yes ☐ No

8. Did the decontamination team decontaminate themselves before leaving the area? ................................................................. ☐ Yes ☐ No

9. Were contaminated materials disposed of properly? ☐ Yes ☐ No
### Chemical Name

- **Physical Form**

- **PEL/STEL/IDLH**

- **Flash point/LEL/UEL**

- **pH (if applicable)**

- **Solubility in water**

- **Specific Gravity**

- **Relative Gas Density/Vapor Density**

- **Vapor Pressure**

- **Major Routes of Exposure**

- **Target Organs**

- **Acute Effects**

- **Chronic Effects**

- **Incompatible Materials**

- **Hazard Statements**

- **Precautionary Statements**

- **Signal Word**
Hazardous Materials Fact Sheet – Remediation/support Chemical

Chemical Name ____________________________________________________________

Physical Form ____________________________________________________________

PEL/STEL/IDLH ____________________________________________________________

Flash point/LEL/UEL ______________________________________________________

pH (if applicable) _______________________________________________________

Solubility in water _______________________________________________________

Specific Gravity _________________________________________________________

Relative Gas Density/Vapor Density __________________________________________

Vapor Pressure _________________________________________________________

Major Routes of Exposure ________________________________________________

Target Organs __________________________________________________________

Acute Effects __________________________________________________________

_____________________________________________________________________

Chronic Effects ________________________________________________________

_____________________________________________________________________

Incompatible Materials ___________________________________________________

_____________________________________________________________________

Hazard Statements _______________________________________________________

_____________________________________________________________________

Precautionary Statements ________________________________________________

_____________________________________________________________________

Signal Word ___________________________________________________________
Appendix D

Training Only: Site Work Health and Safety Plans

GBX Oil  Hazards: organic solvents, sludge
          NOTE: pages 84, 85, 87, 90 purposively omitted

Brunswick Maint.  Hazards: metals, asbestos, resins, sludge
                    NOTE: pages 81, 87, 88, 92, 93 purposively omitted

Wadda Messa  Hazards: pesticides, explosives
               NOTE: pages 85, 86, 88 purposively omitted

XYZ  Hazards: lacquers, acids, resins, TDI, solvents
       NOTE: pages 85, 86, 88 purposively omitted

XYZ Bldg 2  Hazards: lacquers, sludge, HDI
               NOTE: pages 81, 87, 88, 90, 91, 94 purposively omitted

Longgone Landfill  Hazards: Acid, aromatic solvents, PCB-contaminated oil, arsenic
                    NOTE: pages 83, 84, 86, 90 purposively omitted