LEADER'S GUIDE

0963-LDG-E

EXPOSURE MONITORING AND MEDICAL SURVEILLANCE

Training for the OSHA HAZARDOUS WASTE OPERATIONS and EMERGENCY RESPONSE (HAZWOPER) REGULATION

Quality Safety and Health Products, for Today... and Tomorrow

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THE "HAZWOPER" VIDEO SERIES

This education program is part of a comprehensive series of programs on working safely with hazardous materials and hazardous waste, as well as how to deal with emergencies involving hazardous substances. These programs have also been designed to meet employee training requirements of OSHA's Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations. The series includes programs on the following topics:

- Accidental Release Measures and Spill Cleanup
- The ANSI Material Safety Data Sheet
- Confined Space Entry
- Dealing with the Media in Emergency Situations
- Decontamination Procedures
- Electrical Safety in HAZMAT Environments
- Emergency Response Plan
- Exposure Monitoring and Medical Surveillance
- Fire Prevention
- Handling Hazardous Materials
- HAZMAT Labeling
- Heat Stress
- Introduction to HAZWOPER Retaining
- Medical Surveillance Programs
- Monitoring Procedures and Equipment
- Personal Protective Equipment and Decontamination Procedures
- Personal Protective Equipment
- Respiratory Protection
- Safety Orientation
- The Site Safety and Health Plan
- Understanding HAZWOPER
- Understanding Chemical Hazards
- Work Practices and Engineering Controls
WARRANTY/DISCLAIMER

"This program has been created to assist companies that are endeavoring to educate their employees regarding good safety practices. The information contained in this program is the information available to the producers of the program at the time of its production. All information in this program should be reviewed for accuracy and appropriateness by companies using the program to assure that it conforms to their situation and regulations governing their operations. There is no warranty, expressed or implied, that the information in this program is accurate or appropriate for any particular company's environment. In order to comply with OSHA's Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation, employees may need to be provided with site-specific information as well as hands-on training in addition to the material presented in this program."

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INTRODUCTION TO THE PROGRAM

Structure and Organization

Information in this program is presented in a definite order so that employees will see the relationships between the various groups of information and can retain them more easily. The sections included in the program are:

- Direct-reading instruments.
- Sampling collection devices.
- Monitoring for IDLH conditions.
- General on-site monitoring.
- Perimeter monitoring.
- Periodic monitoring.
- Personal monitoring.
- Medical surveillance.
- Medical examinations.

These sections include examples and other references that will help employees to relate the information to their work environments.

Background

Hazardous materials and waste are a part of many work situations, and can be found in many types of facilities and job sites. It is very important for employees to know how to recognize these potentially dangerous substances, and how to handle and dispose of them properly.
In 1976, The U.S. Environmental Protection Agency (EPA) issued the Resource Conservation and Recovery Act (RCRA) to regulate the handling of hazardous waste from cradle to grave. Since then, other regulations have followed including the Occupational Safety and Health Administration's (OSHA) Interim Final Rule for Hazardous Waste Operations and Emergency Response ("HAZWOPER") which in 1986 gave OSHA the task of protecting HAZMAT workers.

As part of these HAZWOPER regulations, there are varying requirements for employee training, depending on the employee's specific level of involvement with hazardous materials. This program will help employees to understand various aspects of the HAZWOPER regulations, as well as their rights and responsibilities as someone who works with hazardous materials or waste. But more importantly, the information provided in this training program will help employees to work safely around hazardous materials.

Objectives

This training program is designed to present information on the nature of hazardous materials and help employees reduce or eliminate potential exposure to hazardous materials in their work environments. Upon completion of the program, employees should:

- Understand the importance of monitoring instruments, and how critical they are in measuring for hazardous conditions that are immediately dangerous to life and health.

- Recognize the different monitoring tools that are available, their strengths and weaknesses, and how each contributes to the safety of employees who handle hazardous materials.

- Know when to deploy these tools and under what circumstances they are to be used.

- Understand how a medical surveillance program helps to provide a safer workplace.
Reviewing the Program

As with any educational program, the presenter should go through the entire program at least once to become familiar with the content and make sure the program is consistent with company policy and directives.

As part of this review process, you should determine how you will conduct your session. The use of materials, such as handouts, charts, etc., that may be available to you needs to be well thought out and integrated into the overall program presentation.
PREPARING FOR THE PRESENTATION

Structuring the Presentation

In conducting this education session, you should proceed with a friendly and helpful attitude. Remember that the trainees are looking to your experience and knowledge to help them relate to the situations shown in the program. It is important to let the trainees interact with you and each other during the training session. Stimulating conversation within the group is one of the best things you, as the presenter of the program, can do to help everyone get as much as possible from the session. Be alert for comments that could help in this area in future sessions and make note of them.

As the presenter, you also should:

- Keep the session related to the topic of exposure monitoring and medical surveillance.
- Relate discussions to your company's/site operations, procedures and responsibilities.
- Prevent any one person or small group of employees in the session from doing all the talking.
- Get everyone involved. Ask questions of those who don't participate.
- Clarify comments by relating them to the key points in the program.

Use the Outline of Major Program Points section in this guide, as well as the information included in the quiz, as the basis for answering any questions. If you don't know the answer, say so. Tragic results may occur should you provide incorrect or inaccurate information. Remember, this is a positive program on exposure monitoring and medical surveillance. Make sure your attitude and words reflect this, and that the emphasis is always on providing the information needed by the attendees to understand the purpose of HAZWOPER regulations and how to work safely with hazardous materials and waste.
Setting Up the Class and Classroom

Remember, there are a number of things that must be done to set up the class as well as the classroom. These fall into several groups of activities, and include:

- **Scheduling and Notification**
  - Use the enclosed form to schedule employees into the session.
  - Make sure that the session is scheduled so that it fits into your attendees' work day.
  - Send out notification of the session well in advance, to give people enough time to incorporate it into their schedule for that day.
  - If possible, post a notification on bulletin boards in the affected employees' areas.

- **The Classroom**
  - Schedule the room well in advance.
  - Make sure the room can accommodate the expected number of attendees.
  - Check it again on the day of the program to make sure there is no conflict.
  - Make sure the room can be darkened, and won't create a glare on the television screen.
  - Locate the light controls and test them.
  - Make sure the power for the videotape or DVD player you are using operates separately from the room light.
  - See if you can control the room temperature.
  - Know where the closest restrooms are located.
  - Assure that the room is free from distracting noises.
  - Make sure emergency exits are marked and known to the attendees.

- **Seating**
  - Make sure everyone can see the screen from their seat.
  - Make sure everyone can hear the videotape/DVD and your (when you speak).
  - Check to see that seating is such that writing can be done easily.
- Make sure the seating arrangement allows eye contact between attendees, and between you and attendees.

- **Equipment and Materials**
  - Make sure the videotape or DVD player, monitor, and all appropriate cables and extension cords are available.
  - Make sure a stand or table is available and is of appropriate height for all attendees to easily see the monitor.
  - If you plan on using a chartpad, blackboard, or other writing board, make sure it is available, easy to see, and you have the proper writing instruments.
  - Make sure you have 6” x 8” index cards or other materials to be used as name tents for attendees.
  - Make sure you have made up a sufficient number of copies of the quiz, as well as any other handouts you are using.

- **Final Check**
  - Make sure equipment is in the room prior to the scheduled session.
  - Check to see that the room is set up properly.
  - Check equipment prior to the presentation to assure that it works.
  - Make sure extension cords, etc. are taped down, if need be, to avoid tripping.
  - If you are using the videotape version of the program, run the leader up to the point where the program begins.
CONDUCTING THE SESSION

The Initial Steps

In conducting the session remember the positive nature of this presentation. Everyone is attending in order to learn more about how to do things safely. Initially, you need to:

- Introduce yourself as the session leader.

- State the title of the program, Exposure Monitoring and Medical Surveillance and the purpose of the session (to learn more about how to work safely with hazardous materials and waste).

- Inform the attendees when there will be breaks (if you plan them) the location of exits and restrooms and if water, coffee, or other refreshments will be available.

- Make sure all of the attendees have signed in on your scheduling and attendance form. Remember, it is very important to document peoples' attendance at the session.

Once this housekeeping is done, it is time to move to the meat of the session. First, the attendees need to be informed about the objectives of the session (this is where you can use a flip chart or board to list the objectives, which should be done prior to the class starting). This listing should be preceded with some introductory remarks. Your own words are always best, but the remarks should follow along the lines of the following:

"Today we are going to talk about the HAZWOPER (Hazardous Waste Operations and Emergency Response) regulations, and how we can work as safely as possible in an environment that can bring us into contact with hazardous materials."
"We have a pretty good safety program here. However, as we all know, from time to time accidents can still occur. Drums or other containers can be damaged and begin to leak, or we may even experience a chemical spill. Some of us may belong to our in-house emergency response team. All of these situations have the potential to cause us to be exposed to hazardous substances."

"As you probably know, the government has created a set of regulations to make sure that whenever these types of situations take place employees are protected as much as possible from hazardous exposures."

"We realize that the first step in protecting ourselves is to be able to recognize where potential exposure can occur, which is where exposure monitoring comes in. Tracking the health of anyone who is working around hazardous materials is also a key element in keeping us safe and healthy."

"Learning more about these topics is the focus of our session. To make this the most productive session possible we need to look at what we want to accomplish here today (verbally reference the 'Objectives' list provided in the preceding section of this guide, or point to the board or chart where they have been written down)."

Once the objectives have been provided, you are ready to show the program. However, you need to let the attendees know that they will be taking a quiz at the end of the session (if you are using it). It needs to be emphasized that they are not being graded, but that the quiz is being used to see if the session is effectively transmitting information to them in a way they will remember.

**Showing the Program**

At this point, you need to introduce the title of the program once again, Exposure Monitoring and Medical Surveillance, darken the lights if necessary, and begin the showing of the program.
If you are using the DVD version of the course you have several options as to how you can move through the program and what employees see.

The DVD menu has two selection bars:

- Play.

- Contact Us.

To just play the program from beginning to end, select Play.

If you would like information on other programs and products that are available from Training Network you can select Contact Us for information about how to contact us.

**Conducting the Discussion**

After the program has been shown, it is time for the group discussion on the information contained in the session. Care must be taken to make sure that the discussion is kept to the general topic of exposure monitoring and medical surveillance. There are several ways to conduct these discussions. These include:

- Calling for questions from the attendees and using these questions as the basis for the discussion.

- Leading the discussion through the points covered in the program using statements such as:
  - "One of the sections that we saw in the program was about the use of direct-reading instruments. What are the main strengths and weaknesses of these devices?"
  - "We saw some interesting things about what types of places should be monitored for IDLH conditions. Where in our operations does this apply?"
You should use the discussion format that you are most comfortable with. The Outline of Major Program Points in this guide, and the questions and answers in the master copy of the quiz should be used as a basis for this discussion, as well as the supplemental information that you have presented in this session.

Remember, you have allocated a limited amount of time in which this discussion can take place. It is important to blend the attendees' questions and areas of obvious interest with the objective of trying to touch on each major area within the session in the discussion. By touching on each area, the attendees are much more likely to retain the information presented in the session.

**Concluding the Presentation**

Once discussion has concluded (whether naturally or you have had to bring the discussion to a close in order to complete the session within the time allowed), it is time to give the quiz (if you are using it). Again, remind the attendees that the quiz is only meant to help determine how effective the presentation of the information is, and that they will not be graded. Let them know that they have approximately five minutes to complete the quiz.

At the end of the five minute period, remind the attendees to date and sign their quizzes and then collect them. The attendees should be thanked for attending the session and reminded of any other sessions in the educational program that they may be attending. They can then be dismissed to return to their normal activities.

*(An alternative to this approach is to give the quiz immediately after showing the program, then use a review of the quiz as a basis for your group discussion).*
Wrapping Up the Paperwork

Before much time has passed, and the subject matter is fresh in your mind, several areas of paperwork must be completed. First, check to make sure that all attendees signed the scheduling and attendance form. Next, make sure that you have a quiz from every attendee, dated and signed.

Also, depending upon what you have decided to do, a copy of the attendance sheet, along with the quiz for each attendee should be either filed in your files, or turned over to the attendee’s department manager or the personnel office so that this paperwork can be included in their personnel file. Their training logs should also be updated, and each attendee should be given a filled out and signed training certificate, signifying that they have successfully completed the course.

Remember, it is always a good idea to document information about an employee's attendance at these sessions, as well as the fact that the employee has come away from the session with some knowledge of the HAZWOPER regulations, exposure monitoring and medical surveillance, as well as how to work with hazardous materials safely.
OUTLINE OF MAJOR PROGRAM POINTS

The following outline summarizes the major points of information presented in the program. The outline can be used to review the program before conducting a classroom session, as well as in preparing to lead a class discussion about the program.

- On March 6th, 1990, the Occupational Safety and Health Administration put its HAZWOPER standard into effect.
  - HAZWOPER stands for "Hazardous Waste Operations and Emergency Response."

- HAZWOPER helps to protect you if you work:
  - At hazardous waste sites.
  - At a hazardous waste treatment, storage or disposal facility.
  - In emergency response situations involving hazardous materials.

- The goal of HAZWOPER is to minimize your risk of exposure to hazardous waste.
  - This requires many safeguards, including exposure monitoring and medical surveillance.

- Exposure monitoring is concerned with the detection of any airborne contaminant that might be present where you work, whether it’s a hazardous:
  - Gas.
  - Vapor.
  - Dust.

- Contaminants you inhale are among the most dangerous, because many chemicals pass easily from the lungs into the bloodstream.
  - Exposure monitoring helps protect you by detecting these airborne hazards.
- Medical surveillance means watching the health of everyone who regularly works around hazardous materials.
  - Your medical surveillance began prior to your first day of work, and will continue for as long as you run the risk of exposure.

- Both exposure monitoring and medical surveillance are ways to uncover potential threats to your health as early as possible.
  - They are also crucial to determining what protective measures you need to take while performing your job.

- Exposure monitoring helps:
  - To locate unhealthy environments.
  - In choosing the right personal protective equipment (PPE).

- Your company's doctor will decide what kind of medical surveillance you should have.

- The instruments used for exposure monitoring fall into two broad categories, and each type of equipment has strengths and weaknesses:
  - Direct-reading instruments, which provide instant information on environmental conditions.
  - Sampling collection devices, which store airborne contaminants in collection media for later analysis at a laboratory.

- The main strength of direct-reading instruments is that they provide immediate feedback.
  - That's why these Instruments are used to detect what OSHA calls IDLH: conditions immediately dangerous to life and health.

- OSHA defines IDLH as an atmospheric concentration of any toxic, corrosive, or asphyxiant substance that:
  - Poses an immediate threat to life.
  - Would cause irreversible or delayed adverse health effects.
- Would interfere with an individual's ability to escape from a dangerous atmosphere.

- Clearly, IDLH situations are matters of life or death.
  - Under these conditions, direct-reading Instruments can give you the information you need to stay safe.

- Direct-reading Instruments do have weaknesses, though.
  - Each one is sensitive to only a limited range of chemicals.
  - There is no single direct-reading device that allows you to identify every contaminant that might be present at a site.

- Also, even the most sensitive direct-reading instruments cannot detect concentrations of a chemical that are below one-half of a part-per-million.
  - If a hazardous material is present in a smaller quantity than this, a direct-reading device will not pick it up.
  - This can be a serious problem, because certain chemicals are still hazardous in concentrations below this level.

- Finally, if multiple chemicals are present in the same area, this may cause direct-reading instruments to give false readings.

- The attributes of direct-reading instruments are complemented by those of sampling collection devices.
  - Although they don't give you immediate feedback in the field, sampling collection devices make up for this in a number of ways.

- Collection devices can store contaminants in various media for later laboratory analysis.
  - This allows for a broad range of tests.
  - A laboratory can detect concentrations of hazardous materials in parts-per-billion, rather than the parts-per-million possible of direct-reading instruments.
- Also, laboratory analysis usually produces information that is more reliable than data from direct-reading instruments.

- But there are drawbacks to using sampling collection devices.
  - The biggest of these is that you have to wait for the results... immediate feedback isn't possible.
  - So you can't use sampling collection instruments to detect IDLH conditions.

- Direct-reading and sampling collection devices make up for each other's shortcomings.
  - What one type of instrument doesn’t do, the other type does.
  - This is why you need both to give you an accurate picture of all the hazardous conditions you may face.

- If you are going onto a new site, or if something has changed at your current site, you will want to begin by monitoring for IDLH conditions and other atmospheric hazards.
  - Since these conditions are life-threatening, you would use direct-reading Instruments.

- These instruments come in a wide variety of shapes, sizes and sensitivities. Depending on the conditions that you suspect exist, you might use:
  - An oxygen indicator.
  - A colorimetric detector tube (which changes color in the presence of a specific contaminant).
  - A combustible gas indicator.
  - A radiation detector (to pick up alpha, beta or gamma radiation)
  - Other direct-reading devices.

- Check with your supervisor to see what instruments should be used where you'll be working.
  - You will also want to review the operating procedures for these devices.
- Once you have chosen your monitoring tools, you'll need to characterize the site.
  - In addition to monitoring for IDLH conditions you will need to look for general hazards, ranging from open pits to unstable piles of material.

- Proceed as you normally would when entering a potentially dangerous area.
  - Wear the right PPE.
  - Remember that unsafe conditions can develop quickly.
  - Be especially aware of places where you could trip or fall, or where something could fall on you.

- When you begin to monitor for IDLH conditions, pay particular attention to places where the air might be still. These high-risk areas include:
  - Hills.
  - Gullies.
  - Enclosures.

- Also examine confined spaces, and make sure that the proper precautions are in place for any hazard that you enter, including:
  - Mine shafts.
  - Storage tanks.
  - Box cars.
  - Silos.

- When IDLH conditions are under control, the next step is usually general on-site monitoring.
  - This means monitoring for all contaminants, whether they pose an IDLH threat or not.

- First, you need to evaluate the environmental conditions at the site.
  - Use direct-reading instruments, such as organic vapor analyzers and photo-ionization detectors, to identify areas that you suspect are contaminated.
  - Then use a sampling pump to collect air directly from the area itself, as well as from locations that are downwind.
- A sampling pump is a suction device that traps airborne particles in a collection medium.
  - Depending on how they are designed, pumps can sample air at rates that vary between 10 cc's and 3 liters per minute.
  - If the pump is properly calibrated, an accurate flow rate can be determined by markings on the air intake tube.

- The contaminants that you gather are stored in collection media, such as:
  - Impingers.
  - Sorbent tubes.
  - Filter cassettes.
  - These are sent out to a laboratory for analysis.

- Another way to detect contaminants involves going outside of the site, and is called perimeter monitoring.
  - Perimeter monitoring detects airborne contaminants that might escape from the site.
  - It lets you evaluate how effective your containment procedures really are.
  - Because it takes place outside of known contaminated areas, perimeter monitoring does not usually require you to wear PPE.
  - Often, perimeter monitoring makes use of fixed-location sampling equipment placed at the edges of the property.

- Your monitoring program will also have to keep tabs on changes that occur over time.
  - This is called periodic monitoring.

- The objective of periodic monitoring is to determine if:
  - The concentration of a contaminant has changed over time.
  - A new contaminant has appeared.
  - Either of these conditions might mean an increased risk of exposure.
- Changes in contaminant levels can occur when:
  - You are handling a number of contaminants at the same time.
  - Work has switched to another area.
  - A different type of work begins within the site.

- Direct-reading instruments are used to conduct periodic monitoring, and include:
  - Photo-ionization detectors.
  - Organic vapor analyzers.
  - Oxygen indicators.

- While IDLH and periodic monitoring look at entire sites or work areas, personal monitoring focuses on you.
  - This is done by collecting samples of airborne gases, vapors and particles from the area near your nose and mouth.
  - This area is called your breathing zone.

- The instruments used for personal monitoring are attached to the clothing in your breathing zone. They include passive devices such as:
  - Organic vapor monitor badges.
  - Personal pumps (which draw airborne contaminants through a flexible tube for storage in a collection medium).

- Normally, personal monitoring devices are used to record exposure data during the course of a full shift.
  - At the end of the work day, each device is retrieved.
  - Its collection medium is then sent to a laboratory for analysis.

- Some personal monitoring devices, such as organic vapor monitor badges, are sensitive to a wide range of substances.
  - Others will register only the presence of a single chemical.
  - A few even change color to warn you if you are nearing a dangerous level of exposure.
- Before laboratory technicians can analyze the collection medium from a personal monitoring device that you’ve used, they need to know the times you started and stopped work on the day that you used it.
  - Without this information, the technicians can’t determine if the exposure recorded by your personal monitoring device occurred over an hour... or ten hours.
  - These start and stop times will be usually be recorded by your supervisor or an industrial hygienist.

- The results of personal monitoring are important in determining what long-term exposure risks may be present in your environment.
  - This information is also needed by doctors who are conducting medical surveillance.

- Even with exposure monitoring, workers who frequently handle hazardous waste can develop health problems, such as:
  - Respiratory distress.
  - Heat stress (from wearing PPE and/or working under extreme temperatures).
  - Reactions to hazardous substances.
  - High levels of psychological stress.

- By keeping a close watch on the health of every worker, the effects of these problems can be lessened.
  - This is the goal of medical surveillance.

- According to the HAZWOPER regulations, you are subject to medical surveillance if:
  - You will be exposed to a chemical at or above its published exposure limit for 30 days or more during the year, regardless of respirator use.
  - You will wear a respirator for 30 days a year, or more.

- Medical surveillance is also required if:
  - You have been injured, or become ill due to overexposure to a hazardous substance.
  - You are a member of a hazardous materials response team.
Medical surveillance includes five types of examinations:
- Pre-employment screenings.
- Periodic examinations.
- Examinations upon termination or re-assignment.
- Emergency examinations, carried out if you are injured or are exposed to hazardous materials.
- Any additional examinations that the doctor thinks are necessary.

Pre-employment screening provides a baseline for monitoring your health.
- Information from the screening is also used to determine your ability to wear PPE.

Periodic examinations are used to monitor changes in the state of your health, as well as to determine exposure levels.
- OSHA recommends that these exams be conducted every year, and requires them at least once every two years.

You will also be examined should your job be terminated, or if you are reassigned to another site.
- If you have developed a medical problem that you didn’t have prior to working with hazardous materials, the exam will allow the doctor to determine which substance caused the illness, as well as what treatment you need to receive.

If you are exposed to a hazardous material an emergency examination will be made to determine what immediate medical assistance you may need.

Because some substances are more of a threat than others, additional examinations over and above those required by OSHA may be necessary.
- Whether you would receive such examinations depends on the specific chemicals that are present at your site.
- Any of these exams can include medical tests, such as:
  - Blood-pressure readings.
  - Neurological exams.
  - Chest x-rays.

- You may also be asked to provide various samples for analysis, including:
  - Blood.
  - Urine.
  - Stool samples.

- Each medical test and examination must occur at a reasonable time and place.
  - This work will be paid for by your employer.
  - The doctor performing this medical surveillance will be a licensed physician (who probably specializes in occupational medicine).

- Following any medical examination, your employer will be provided with the physician's written medical opinion. Results of the examination will contain:
  - Descriptions of any medical conditions that would endanger your health if you worked around hazardous materials.
  - A list of tasks that could make you sick or injure you, based on your physical condition.
  - An assessment of your ability to wear a respirator.
  - A statement that you have been informed of the examination results.
Your employer will not, however, be informed of any findings unrelated to your job.
- You will receive a copy of the doctor’s written opinion for your own records as well.

Exposure monitoring and medical surveillance:
- Two approaches to identifying hazards in the workplace.
- Two methods of determining the precautions you should take on the job.
- Two more ways that the HAZWOPER Standard makes your job safer!
ACCOMPANYING MATERIALS

In order to assist you in complying with as many facets of your training requirements as possible, we have provided a number of specific materials that can be used with this program. Some of these materials have been furnished in master form. This will enable you to make as many copies of these forms as you need. If you have colored paper available to you, it is often useful to put each form on a different color. This enables you to easily differentiate between the materials. The materials enclosed with this guide include:

**Scheduling and Attendance Form**

This form is provided so you can easily schedule your attendees into each session of the program. It is important that you have each attendee sign-in on the appropriate form, thereby documenting their attendance at the session. Typically, a copy of this attendance/sign-in form is filed in the employee’s personnel file.

**Quiz**

The quiz is normally given after viewing the program. However, if you want an indication of the increase in the attendees' knowledge about HAZWOPER, you can give the quiz both before and after the program is shown. You can also use the quiz as the basis for class discussion. If you have decided to give the quiz both before and after the attendees view the program, it is often interesting to have the attendees compare their before and after answers as part of the session. Typically, the quiz is filed in the employee’s personnel file.
Training Certificate

This form allows you to give each employee their own certificate of completion showing that they have attended the course and taken the quiz. Space is provided to insert the employee's name, the course instructor and the date of completion.

Employee Training Log

This log helps you to keep track of when each employee has taken this course, as well as associated courses or training. Space is provided to list pertinent data about the employee, as well as information such as the date the course was taken, and the instructor conducting the course. A copy of this form should be kept in each employee’s training or personnel file.
# Scheduling and Attendance Form

**Exposure Monitoring and Medical Surveillance**

## Training Session Schedule

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QUIZ

EXPOSURE MONITORING AND MEDICAL SURVEILLANCE

Name: ___________________________ Date: ________________

1. True or False... Contaminants that are inhaled are among the most dangerous?
   ___ True
   ___ False

2. True or False... Exposure monitoring does not help in choosing the correct PPE?
   ___ True
   ___ False

3. True or False... IDLH stands for "immediately dangerous to life and health"?
   ___ True
   ___ False

4. True or False... A direct-reading instrument will usually measure all the contaminants at a site?
   ___ True
   ___ False

5. Which of the following are direct-reading instruments?
   ___ Photo-ionization Detectors.
   ___ Organic vapor analyzers.
   ___ Oxygen indicators.
   ___ All of the above.

6. True or False... Some personal monitoring devices will change color to warn you if you are nearing a dangerous level of exposure?
   ___ True
   ___ False

7. True or False... All medical exams that are part of a medical surveillance program are paid for by your employer?
   ___ True
   ___ False
QUIZ

EXPOSURE MONITORING AND MEDICAL SURVEILLANCE

PRESENTER'S COPY WITH ANSWERS

1. True or False... Contaminants that are inhaled are among the most dangerous?
   - X True
   ___ False

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   ___ False
# EMPLOYEE TRAINING LOG

## EXPOSURE MONITORING AND MEDICAL SURVEILLANCE

<table>
<thead>
<tr>
<th>Employee: ____________________</th>
<th>Employee #: ________</th>
<th>Social Security #: ________________</th>
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<tbody>
<tr>
<td>Department: _________________</td>
<td>Date of Next Required Training: ____________________</td>
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<thead>
<tr>
<th>DATE</th>
<th>TYPE OF TRAINING OR COURSE DESCRIPTION</th>
<th>LOCATION OF COURSE MATERIALS</th>
<th>INSTRUCTOR’S NAME AND ADDRESS/DEPARTMENT</th>
<th>CERTIFICATION OF TRAINING AND TESTING (Instructor's Signature)</th>
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106 Capitola Drive  
Durham, NC  27713  
(P) 919-544-6663  (F) 919-544-5800  
Trainingnetwork.com
TRAINING CERTIFICATE

This is to certify that _________________________________ has completed the course Exposure Monitoring and Medical Surveillance and has been tested on the contents of the course, as required. This training, as well as the associated testing was conducted by ___________________________ and was completed on _________.

_____________________________ ____________

(employee name) (date)

_____________________________ ____________

(course instructor) (date)

_____________________________ ____________

(course instructor) (date)