

Determining Employee Exposures

One area of emphasis that OSHA Compliance Officers are looking at during their inspections is potential employee exposures to hazardous substances. Many companies have made necessary cut-backs to stay competitive during the past year, and health and safety responsibilities have been diverted to people that typically do not deal with these issues on a regular basis. Evaluating employees' exposures to hazardous substances can be a frustrating task for someone who doesn't deal with it on a regular basis.

Here are a few basic tips for evaluating employees' exposures:

1. Identify the hazardous substances that employees may be exposed to and determine if sampling is necessary. Here are some sources to get this information:
 - Job Hazard Analysis (JHA) or Job Safety Analysis (JSA) often have already identified the hazardous substances that employees are exposed to.
 - Material Safety Data Sheets (MSDS) also provide much of the information to identify hazardous substances.
 - Consult suppliers, employees, supervisors and engineers for more information.
2. Determine if the identified hazardous substances have occupational exposure limits (OELs). If there is not an established OEL for the hazardous substance, sampling may not be recommended. Here are several sources for OELs:
 - OSHA Permissible Exposure Limits ([OSHA PEL](#))
 - National Institute of Occupational Safety & Health Recommended Exposure Limits ([NIOSH REL](#))
 - American Conference of Governmental Industrial Hygienist Threshold Limit Values ([ACGIH TLV](#))
3. Decide how to sample the hazardous substance and where to get your supplies:
 - Sampling for hazardous substances can be done using one of two methods: ¹integrated sampling - which requires collection media that must be sent to a laboratory or ²direct reading instruments - which provide almost instant results. Methods for integrated sampling can be obtained from the OSHA ([www.osha.gov](#)) and/or NIOSH ([www.cdc.gov/niosh](#)) websites.
 - Find an Industrial Hygiene accredited laboratory to send your samples. The American Industrial Hygiene Association (AIHA) provides accreditation, and you can find a lab near you http://www.aiha.org/llc_labaccred/accredlablist.htm
 - Obtain the sampling equipment. Many equipment suppliers or laboratories provide equipment that can be either rented or purchased.
4. Conduct the sampling. It is important to take careful notes during the sampling to identify all the tasks taking place during the sampling and to determine if the sampling is representative of a normal working day.
5. Once sampling results are obtained, compare the results to the appropriate OEL. If the sampling results are greater than the OEL, then you need to develop a course of action to reduce the employee exposure and protect the employee. Controlling an employee exposure to a hazardous substance should be done using engineering controls and/or administrative controls. If these controls are not sufficient to reduce exposures below the OEL, then personal protective equipment can be used to protect the employee(s).

Many Human Resource professionals are given Safety Director responsibilities without any health and safety background or minimal safety or industrial hygiene experience. These workshops are designed to help newly appointed safety people or HR employees understand compliance issues and other safety challenges that affect their workplace. Visit [www.safex.us](#) for more information.

Training Assessments Workshop

How to conduct a safety training assessment and why you do them. Offered on Sept. 22

Basics of Industrial Hygiene Sampling

Basic Industrial Hygiene practices including using sampling equipment, calibrations and programs. Offered on Oct. 6

General Health & Safety Orientation

An introduction to general safety practices, OSHA regulations, Occupational Exposures, Respirator and PPE. Offered on Nov. 10

Respirator Programs Workshop

Covers compliance with CFR 1910.134 and developing a respirator fit testing program. Offered on Dec. 8

These workshops are \$95 and run from 1pm—4:30pm at the Safex Training Center, 140 N. Otterbein Ave., Westerville, OH 43081.

For more information, questions or registrations contact Michele Blaney at 614-890-0800 x203 or mblaney@safex.us.