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**ICCFA MAGAZINE
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► The ICCFA offers a set of 10 training CDs developed by TechneTrain on various safety topics. For details or to order, visit www.iccfa.com/icfanews.htm, or call 1.800.645.7700.

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► DeCamp will talk about setting up a cost-effective training program at the ICCFA Annual Convention & Exposition, March 20-23, Las Vegas, Nevada. For more information about the convention, call 1.800.645.7700 or go to www.iccfa.com.

O C C U P A T I O N A L S A F E T Y : P A R T 2 O F 7

Embalming chemicals, lawn mower blades, dust created by monument carving—the occupational hazards vary depending on what you're doing in the funeral and cemetery business. How do you figure out what safety equipment you need to provide for your employees?

Providing your employees with the right personal protective equipment

In the first article of this series, we discussed the basic components of any safety program: hazard assessment, hazard control and training. This article focuses on building a safety program for Personal Protective Equipment, which is critical to both cemeteries and funeral homes. It also includes important information on OSHA's recent revision to its respiratory protection standard.

What is PPE?

PPE, or personal protective equipment, is clothing and equipment worn to protect or minimize workplace hazards. PPE is a critical part of any safety program. It is used to shield your body from any material or process in the work area that could hurt you through absorption, inhalation or physical contact.

How do you select the right PPE?

The first step in any safety program is hazard assessment. As an employer, you must determine what risks are present in the workplace, and then eliminate or minimize these hazards as much as possible using engineering controls (such as ventilation) and safe work practices (such as using the correct tool for the job).

When hazards still exist, you must provide the correct PPE to protect each employee from their specific work risks. Employers must provide PPE that properly fits each employee and train each employee on its use and care.

Material Safety Data Sheets and labels on equipment and products are a good place to start when determining what PPE is required.

What hazards require PPE?

At funeral homes, hazards that cause PPE to be required include bloodborne pathogens, sharps, formaldehyde and other chemical exposure.

At cemeteries, flying particles and falling objects, rough or sharp surfaces, outdoor work hazards and dangerous equipment are typical hazards that create a need for protective equipment.

Types of PPE required in the cemetery and funeral service profession

PPE protects your body, including your eyes, face, head, skin, internal organs and extremities. The most typical types of PPE needed at cemeteries and/or funeral homes include goggles and safety glasses; face shields; gloves; head protection; protective shoes, gowns, aprons and other protective clothing; hearing protection; and respirators.

Eye protection. The most common type of PPE is eye protection. Employees must use goggles or glasses with side protection when there is a hazard from flying objects such as in landscaping activities. Goggles are also required when there is exposure to bloodborne pathogens; liquid chemicals acids or caustics; or chemical gases or vapors.

If corrective lenses are needed, eye protection must either incorporate the prescription or be worn safely over prescription lenses. Contact lenses are generally not allowed in areas where goggles are required.

Hand protection. Gloves protect against cuts, lacerations, punctures, severe abrasions, chemical or thermal burns and extreme temperatures. Gloves and barrier creams can also prevent absorption of chemicals through the skin.

Select the type of gloves based on the type of hazard present, the needs of the job (flexibility or strength, etc.), type of chemicals used and the duration of use.

Head protection. Protective helmets are required when working in an area where there are low branches or falling objects that could cause head injury.

There are many types of hard hats. Type I only reduce the force of a blow to the top of the head. Type II reduce the force of a blow from both the side and top.

If hazards include the possibility of the employee's head coming in contact with exposed electrical conductors, the protective helmet must be designed to reduce electrical shock hazard.

Foot protection. For cemeteries, outdoor workers

should wear rubber soled, steel-toed leather shoes or boots to protect feet from falling or rolling objects, sharp objects piercing the sole, exposure to electrical hazards and slick surfaces such as water and ice, or even oil or other chemical spills.

Protective clothing. Employees must wear the right clothing for the job, determined according to the hazards encountered in their specific work. Protective clothing can be as simple as long sleeved shirts, pants and hats that protect from outdoor hazards such as bees, ticks, poison ivy, extreme temperatures and UV radiation.

In hot areas, shorts and short sleeve shirts may be worn in conjunction with sunscreen for simple outdoor tasks such as mowing.

Other special clothing is required to shield the body from chemicals that can be absorbed through the skin or from biohazards. This may include aprons, special biohazard gowns, waterproof clothing, chemical specialty clothing and full body suits. When using chemicals, always check the MSDS and use the protective clothing the manufacturer recommends.

Hearing protection. If employees work with or around noisy equipment, they must be included in your hearing conservation program and must wear hearing protectors. Hearing protectors come in many forms, including various types of plugs and earmuffs, and provide varying levels of protection. The level of protection must be adequate for the level of noise exposure.

Respirators

OSHA made changes to its respiratory protection standard effective November 22, 2006. The standard revision includes a table giving the assigned protection factors for all types of respirators. This is a good time to review your respirator program (or determine if you need one) to be sure you are adequately protecting your employees.

There are two types of respirators:

- air purifying respirators filter the air from the immediate work area before it enters the body; and
- supplied air respirators provide clean air from an airline or tank.

Each of these types comes in different models, including those that cover half of the face (mouth and nose area), all of the face (referred to as a full face piece) or include a helmet or hood.

Respirator selection becomes particularly important with air purifying or filtering respirators, because they clean the air rather than supply fresh air.

Air purifying respirators work by filtering the air before it reaches your lungs. For dust or particles, the pores of the filter are small enough to screen out the particulate. For chemical fumes or gases, the filter contains absorbents such as charcoal that capture the chemicals before they reach the lungs. Some work situations require both dust and chemical removal.

To determine what respirator to use and how long it lasts, OSHA and NIOSH (the National Institute for Safety and Health) have developed a rating system for respirators, the assigned protection factor (APF). Another new term, maximum use concentration (MUC), has also been incorporated into the revised OSHA standard.

APFs are numbers that indicate the level of workplace respiratory protection that a respirator, or class of respirators, is expected to provide. APFs are used to select the appropriate type of respirator based upon the permissible exposure limit (PEL) of a contaminant and the level of the contaminant in the workplace. The APF number is the percentage of the contaminant that will be filtered out of the surrounding air.

The respirator you select must keep the employee's exposure at or below the permissible exposure limit. For each specific respirator, the maximum use concentration is the largest concentration of an airborne contaminant the respirator can handle.

The exposure level must be measured using OSHA protocol and compared to the MUC for the respirator you have selected. If the workplace exposure exceeds the respirator's MUC, the employer must choose a respirator with a higher APF.

Embalmers may be required to use respirators to protect themselves from formaldehyde or other chemical exposure. Groundskeepers for cemeteries may also need to use respirators for pesticide or dust exposure.

You may have other tasks at your facility that require the use of respirators, such as stone cutting or spray painting.

You must determine what your employee exposure is for each chemical used in the workplace, and ensure that your respirator's protection level is adequate. The need for respirators will be reviewed again in the upcoming article in this series on hazard communication.

What constitutes an effective PPE program?

1. Back to the basics: You must begin with a hazard assessment. Determine what chemical and physical hazards exist in your workplace. You must be familiar with the permissible exposure limits of airborne contaminants and physical agents used. This assessment must be written.

2. The next step is hazard control. Whenever possible, eliminate or engineer out hazards. Use general or local exhaust systems to control dusts, vapors, gases, fumes, smoke, solvents or mists that may be generated in your workplace. Develop safe work practices to minimize risks, such as using hazardous materials only in specific work areas that can be ventilated.

The last choice for hazard control is PPE: PPE is the final line of defense for protection from workplace hazards. You must select the correct PPE for each work task and complete your written PPE program, including what PPE must be worn and who, specifically, must wear it.

Prior to requiring an employee to wear a respirator, you must make sure that employee has a medical evaluation to determine whether he or she can safely breathe through the respirator's restricted air flow.

3. The final step is training. Employees must be trained on the purpose, correct use and limitations of their PPE. They must understand when and how to use it, and how to care for it.

Look for more specific details on PPE in upcoming articles, within the context of its role in each of the following safety topics:

- hazard communication (chemical exposure, including herbicides and pesticides);
- formaldehyde;
- bloodborne pathogens;
- ergonomics (manual lifting and working in awkward postures); and
- machine guarding (retort, lawnmower, maintenance equipment).

As discussed in the first article, developing a safety program may seem like a daunting and expensive task for your business, but it is essential, and is money well-spent. Studies have shown a \$4 to \$6 return for every dollar invested in safety and health.

Remember, a successful safety program is key to having not only healthy and competent workers, but also a healthy, successful business. □