EMPLOYEE SAFETY NEWSLETTER

Metalworking Industries of MI WC Fund
First Quarter 2019

Health Hazards of Shiftwork

Shiftworkers contend with a host of hazards, ranging from job-specific hazards to unique health and safety risks. The following are some additional risks associated with shiftwork:

- It disrupts your body's natural rhythms, which can lead to cardiovascular and gastrointestinal problems.
- It can lead to sleeping problems, and when you do sleep, it may not be as restful. This can lead to sleepiness during your commute and at work, which makes safety-sensitive tasks dangerous.
- Shiftwork has a negative impact on eating habits and exercise due to a reliance on fast or processed foods, which are low in nutritional value. Changing schedules can make finding time to exercise difficult.
- Shiftwork disrupts family and social life, as friends and family schedules don't match up, impacting emotional health.
- In addition to the health risks, nightshift workers often experience higher rates of accidents and injuries than dayshift workers. This is due to fatigue and reduced concentration, a decrease in reaction time, and a temptation to take shortcuts with safety procedures.

"Look closely at the hand holding the lightning bolt, and you'll see the rubber glove that Zeus wore for insulation."

Save Yourself from a Shock with Electrical Protective Devices

Shocks, burns, electrocutions, and other injuries happen because of unsafe or improperly installed electrical equipment. Many incidents can be prevented with insulation and other protective devices, including insulating blankets, matting, covers, line hoses, gloves, and sleeves made of insulators. These devices form a critical barrier between you and the hazard, protecting you from shocks and potential electrocution. Some are personal protective equipment, while others directly cover or coat the live electrical parts.

Insulators
Insulators stop or reduce current flow. Rubber, glass, or plastic insulators are used to coat conductors and help confine the current flow along wires or through equipment, preventing shocks, fires, and short circuits when someone or something touches the insulated wire. The type and quality of insulation must match the voltage and withstand environmental factors like temperature, moisture, and corrosive fumes.

Insulation on conductors is usually color-coded. Insulated grounding conductors are usually solid green or green with yellow stripes. Insulation covering grounded conductors is often white or gray. Ungrounded conductors, or "hot wires," are mostly black or red, although they may be any color other than green, white, or gray.

Markings on Protective Devices
Protective blankets, matting, covers, line hoses, gloves, and sleeves are clearly marked with the electrical class and type of equipment. The markings will help you determine the maximum-use voltage that the devices can safely withstand. Gloves have safety markings on the cuffs and include the manufacturer's identification and size.

Electrical protective devices must be tested, with the test date marked directly on the device and recorded in a log. See your supervisor for the log if the date isn't legible on the device.

Inspection
Inspect electrical protective devices at the start of every day and after incidents that could have damaged the electrical equipment. Every device must be free of physical defects or damage that could interfere with its insulating properties. Report any defects or damage to your supervisor so the device can be tested. Failed devices must be immediately removed from service.

Maintenance and Storage
Make sure the protective devices are clean and in good condition. If you are qualified, remove damaged or worn devices from service. If you are not trained or qualified, mark the damaged device and notify a supervisor. Repaired devices must be retested and certified before reuse.

Store all insulating devices to protect them from light, extreme temperatures, excessive humidity, ozone, and other damaging substances that could compromise their effectiveness.

Health and Safety Tips for Shiftworkers

Most risks posed by shiftwork can be mitigated. The following are steps to reduce shiftwork's negative effects:

- Stick to a sleep schedule, even on weekends and days off. Sleep in a quiet, cool, dark room, and make sure your family and friends understand your sleeping needs and schedule.
- Like with sleep, stick to a regular eating schedule. Make sure you eat nutritious foods containing appropriate levels of protein, carbohydrates, and fat. Skip processed and sugary foods, and avoid heavy and greasy foods at night. Don't snack on candy or chips; instead, eat fruit, nuts, or other healthy options. Avoid caffeine 4 hours before bed time.
- Follow a consistent exercise routine; it will increase your energy, help you sleep better, and adjust your circadian rhythms. Avoid exercising right before your bed time.
- If possible, change tasks every couple of hours. The change can help your concentration and prevent drowsiness.
- Physically active work helps keep you alert. If your job isn't physically active, get up and stretch, or periodically take a short walk.

Electrical Device Safety: Quiz

1. Insulators covering conductive materials are usually not color-coded. **True or False**
2. Electrical protective devices should be inspected before use:
    1. Every day
    2. Once a week
    3. Every month
    4. There's no need to inspect them
3. Repaired devices need to be retested and certified before reusing them. **True or False**
4. The insulation or protective device needs to be able to withstand environmental factors. **True or False**
5. If you find defective or damaged protective devices, there's no need to tell your supervisor; he or she will see them sooner or later. **True or False**

Answers. 1. False. Insulation is typically color-coded by the type of conductor it is used on. **2. a.** Electrical protective devices need to be inspected before use each day. **3. True.** Repaired devices do need to be retested and certified; if unsure, check with your supervisor. **4. True.** The insulation needs to both be able to withstand environmental factors and be rated for the voltage being used. **5. False.** Always notify your supervisor in the event of a damaged or defective device. He or she isn't typically "hands-on" with the equipment every day and, therefore, may not discover the problem.

Computer Ergonomics Are More Than a Comfy Chair

The awkward positions, excessive reaching, and eyestrain caused by poor computer ergonomics can contribute to discomfort or injury. Back and neck pain and carpal tunnel syndrome are some of the conditions brought on by bad ergonomics. Here are some guidelines to follow when using a desktop computer:

- Position the keyboard at a height that allows you to keep your wrists straight and your shoulders relaxed as you type. Your forearms should be roughly parallel to the floor.
- Find the correct keyboard distance by sitting with your shoulders back and your elbows close to your sides. Your fingertips should rest comfortably in the typing position.
- Your monitor should be centered in front of you and placed approximately an arm's length away.
- With your head level, your eyes should be aligned with a point 2 to 3 inches below the top of the screen.
- Use a document holder positioned near the monitor to avoid straining your neck from reading papers lying flat on the desk.

Laptops are more ergonomically challenging because of the fixed position of the keyboard and screen. Here are a few tips for preventing injury:

- Change positions periodically by alternating between working on your lap or at a desk and setting it on a standing-height surface. Consider using a laptop stand on a desk paired with an external keyboard. A docking station allows for even more flexibility.
- Adjust the screen angle and positioning of other light sources to minimize glare.