Electrical Shock

A SAFETY TALK FOR
DISCUSSION LEADERS

This safety talk is designed for discussion leaders to use in preparing safety meetings.

Set a specific time and date for your safety meeting. Publicize your meeting so everyone involved will be sure to attend.

Review this safety talk before the meeting and become familiar with its content. Make notes about the points made in this talk that pertain to your workplace. You should be able to present the material in your own words and lead the discussion without reading it.

Seating space is not absolutely necessary, but arrangements should be made so that those attending can easily see and hear the presentation.

Collect whatever materials and props you will need ahead of time. Try to use equipment in your workplace to demonstrate your points.

DURING THE MEETING

Give the safety talk in your own words. Use the printed talk merely as a guide.

The purpose of a safety meeting is to initiate discussion of safety problems and provide solutions to those problems. Encourage employees to discuss hazards or potential hazards the encounter on the job. Ask them to suggest ways to improve safety in their area.

Don't let the meeting turn into a gripe session about unrelated topics. As discussion leader, its your job to make sure the topic is safety. Discussing other topics wastes time and can ruin the effectiveness of your safety meeting.

At the end of the meeting, ask employees to sign a sheet on the back of this talk as a record that they attended the safety meeting. Keep this talk on file for your records.

Electrical Shock

Electrical shock kills and injures hundreds of Ohio workers each year. Most of these accidents happen because people don't look, don't think or just don't understand the shocking power of electricity.

Voltage, current and resistance are the basic terms used when talking about electricity. Voltage is the force that causes the current to flow. Current (amperage) refers to the amount of electricity that is flowing. Resistance denotes the restrictions that try to slow down or stop the flow.

Electrical shock can only occur when a part of the body completes a circuit between a conductor and another conductor or a grounding source.

Death or injury is not caused by the voltage; the damage is done by the amount of current that flows through the body when the contact is made. Of course, the higher the voltage, the greater the amount of current. Some people have survived shocks of several thousand volts, while others have been killed by voltages as low as 12.

The dry outer skin of the human body offers extremely high resistance to electrical flow. However, this resistance is reduced to almost zero when the skin is wet, especially if the skin is wet because of perspiration.

Electricity and proper grounding work together for safety. A ground is a conducting connection between an electrical circuit or equipment and the earth, or to some conducting body that serves in place of the earth.

If your body is sweaty or damp, an oversensitive ground within it is created, which easily causes electrical shock. One way to keep the body's resistance high is to keep it dry, particularly the hands and feet, which might make the contacts and be instrumental in completing the circuit. This can be accomplished by wearing rubber gloves, boots and rubbers.

Effects of electrical shock depend mainly on the total amount of current flow and the path of the current through the victim's body. To prevent electrical shock, which can cause several types of injuries, make sure that your body cannot become part of the electrical flow and the path of the current.

An important phase of electrical safety is knowing how to help an electrical shock victim. First, stop the current flowing from the circuit through the victim's body, if it hasn't already been done. Often, particularly in cases of low-voltage shock, victims are unable to pull away from the source of current.

If the victim is still in contact with the current, disconnect or de-energize the circuit, if possible. If this cannot be accomplished, obtain a nonconductive item, such as dry clothing, dry rope or a dry stick, and remove the victim from the source of the current.

Then call or send for help. Next, check to see if the victim's heart or breathing has stopped. Give the required first aid until professional help arrives. We can reduce the risk of accidents in our work place by keeping in mind these guidelines:

- Never use water to put out an electrical fire; water can cause a fatal shock. Use a Class C-rated fire extinguisher for electrical fires; shut off the source of power as quickly as possible.
- Inspect the area you're working in for electrical hazards.
- Don't overload circuits.
- Keep electrical equipment away from water and dampness.
- Check electrical cords before, during and after each use for fraying and other signs of wear and defects.
- Be sure to tag out and lock out switches when working on equipment.

Remember, electricity can be an ally or an enemy. Treat it with respect and it will provide the service you expect.