SAFETY MEETING TOPIC

This form shall be completed and kept on file

Job Name _____ Location _____ Job No. _____

Meeting Leader _____ Title _____

Date Held _____ Place _____ Time _____

Subject of Meeting ELECTRICAL EMERGENCIES

ELECTRICAL FIRES

When electricity flows through a material the resistance causes heat. If the heat builds up or a spark is caused by the air's resistance, a fire may occur. If fire occurs:

- Evacuate all personnel and contact the fire department.
- If possible (and if it is safe to do so), turn off the power.
- If the fire is small and you have been trained to fight it, remember to use an approved Class C extinguisher. Never use water or an extinguisher not rated C Class.

BROKEN OVERHEAD LINES

Never assume a broken line is dead. Electricity cannot be seen or heard. Take the following precautions:

- Keep everyone clear of the area and any equipment in contact with the cable.
- Contact the police and the electric company.
- If equipment is involved, instruct the operator to stay on the rig, land or fallen wires.
- Have the power company deenergize the lines.
- If the victim is clear of the line and you have current classification, provide first aid.

ELECTRICAL SHOCK AND INJURY

The primary electrical hazard is shock. Three factors determine the injury:

1. The amount of current (amperage) traveling through the body.
2. The path the electricity takes through the body.
3. The length of time the body is part of the current.

If a shock victim is unable to quickly force himself from a circuit, the increased exposure will increase the injury. Current (amperage), not the voltage, does the damage. Low voltage does not mean low hazard.

Burns are the most common injuries caused by electrical shock. The three types of burns are: electric burns, arc (flash) burns and thermal burns. Electric burns are caused by electricity flowing through the body. This creates heat which can damage bone and tissue.

Arc or flash burns are caused by very high temperatures created by an electric arc or explosion. Temperatures as high as 35,000 degrees Fahrenheit have been recorded. Thermal burns occur when a person touches an overheated conductor or device.

Electric shock also affects muscle reaction. The electric impulse may cause muscles to contract, sometimes violently. Muscle and even bone damage can result. If the heart muscle or nerves controlling the heart are affected, heart fibrillation or cardiac arrest may occur. Fall, collisions and other accidents may also result.

FIRST AID

Be aware of what to do if an electric shock occurs.

- Contact emergency medical services. Even if injuries appear minor, some problems may be hidden. Do not attempt things beyond your capabilities.

- Make certain that you and the victim are in a safe zone. Make certain that the source of electricity is deenergized by a proper worker.

- Be alert for respiratory and cardiac problems. The major problem caused by electric shock is usually not the burn. Maintaining an open airway for breathing may be very important since electrical shock may cause severe swelling along the airway.

- Care for spinal injuries, head injuries and fractures.

- Evaluate the burn areas. Look for at least two external burn sites.

    1. Where contact was made by the energy source.
    2. Where the energy exited to ground.

- Apply dry sterile dressings to the burns.

- Treat for shock.