MARION COUNTY SAFETY MANUAL
ANNEX J – ELECTRICAL SAFETY

Overview

Electrical safety is an important part of the County's safety program. Employees must be aware of all electrical hazards in their work area. Most electrical exposures for County employees involve office equipment and power tools. The following are safety tips that apply to all employees regardless of their job assignment.

1. All electrical equipment used in County shops must be grounded by connecting a polarized three prong plug to a properly grounded three hole receptacle.
2. If extension cords are used, they must have a three prong plug and must be plugged into a matching three prong receptacle.
3. All electrical tools and machines must be visually inspected each time they are used for damage to the cords and ground connections.
4. Never operate power tools without provided guards in place.
5. Insure that electrical panels are labeled so that breakers can easily be located in an emergency situation.
6. Know where the breaker box is for your office so that power can be easily cut off during an emergency situation.

Overhead/Underground Exposures

Employees such as Roads and Bridges, EMS and Sheriff's Deputies are exposed to different types of electrical hazards than administrative and officer personnel. These employees will be responding to scenes where overhead and underground power lines have been cut or pulled down. These situations expose employees to high voltage power lines that can arc to the employee when he/she enters the electrical field. Employees should avoid these potentially deadly situations at all costs.

Maintain Proper Clearance

Accidents involving overhead power lines occur each year. These accidents can severely damage equipment and result in serious injury and/or death of employees. Most of these accidents occur as the result of a piece of mobile equipment; dump truck, backhoe, cranes, etc, contacting the power lines.

OSHA regulations state that you must have a minimum clearance distance of 10 feet when working near power lines containing 50kV or less, and even more clearance distance for those lines carrying more power. These accidents can be prevented with proper supervision and worker safety training.

Electricity can flow through metal, wood and any other conducting material, including human beings. Touching a power line, or any object that is touching one, can result in serious injury or even death.

What to do when…

In the unfortunate circumstance that a piece of equipment should come in contact with an overhead power line the following procedures should be followed to insure your safety and the safety of others.

1. Do not leave the equipment until, if possible, the contact between the equipment and the electrical wires is broken.
2. If it becomes necessary to leave the equipment, jump entirely free of the equipment so that no parts of your body are in contact with the equipment and the ground at the same time.
3. Never touch the ground and the energized equipment at the same time.
4. Never touch anyone in contact with overhead power lines or energized equipment.
5. Follow first aid and CPR procedures once the scene becomes safe.