

PREVENTING ELECTRICAL INJURY:

- ❖ Electrical safety training is a must for **anyone** whose job involves working with or near electrical components. Landscape employees, for example, may not be electricians, but work near power poles, transformers and possibly underground power.
- ❖ Provide training to **everyone** whose job involves working with or near electrical components. Never assume that everyone knows what some people know. For example, many people do not know that power distribution lines are generally not insulated, but are in fact bare wire. This subject should be covered with all new employees and periodically throughout the year.
- ❖ Utilize information found in this publication to provide a very basic awareness of power line hazards.
- ❖ Document safety training with sign-in sheet that includes topic, key points and date.
- ❖ Favor putting electrical utilities underground whenever possible. This protects them from the elements as well as other damage and exposure to people. Make “call before you dig” a standard operating procedure for construction, landscape, or anyone else whose job involves digging.
- ❖ Educate those who may be inclined to entertain themselves by activities that put their lives in jeopardy from electrical hazards. Activities such as climbing on towers or poles, hanging things from wires, recovering things from poles and wires, or damaging transformers, pole, guy wires or powerlines all have consequences ranging from power interruption to death.

- ❖ Prohibit activities such as those listed above with zero tolerance.
- ❖ Make arrangements with local power company to have work done on or near high voltage unless you have personnel who are qualified and equipped to do so.

High-voltage injuries most commonly occur from a conductive object touching an overhead high-voltage power line. In the United States, most electric power is distributed and transmitted by bare aluminum or copper conductors, which are insulated by air. If the air is breached by a conductor, (eg, an aluminum pole, antenna, sailboat mast, crane), any people touching the conductor can be injured. Occupational injuries may include direct contact with electrical switching equipment and energized components. Typical service line carries 13,200 volts.

Direct contact: Current passing directly through the body will heat the tissue causing electrothermal burns, both to the surface of the skin as well as deeper tissues, depending on their resistance. It will typically cause damage at the source contact point and the ground contact point.

National Electrical Code Minimum Vertical Required Clearance

Open land subject to vehicle, cultivation, grazing.....	18.5 ft
Roadways, driveways, parking lots, and alleys.....	18.5 ft
Walkways.....	13.5 ft
Rails.....	26.5 ft
Spaces and ways for pedestrians, restricted traffic.....	14.5 ft
Water areas not suitable for boating.....	17.0 ft

Mississippi Overhead Power Line Safety Act

Mississippi Code 45-15-11 prohibits unauthorized persons from working, including moving equipment, within ten feet of any high voltage overhead electric utility line.

If any unauthorized person intends to work within ten feet of any high voltage overhead electric utility line, the person responsible for the work to be done must notify the owner or operator of the high voltage overhead electric utility line prior to commencing work.

Work shall be performed only after satisfactory mutual arrangements have been completed between the owner or operator of the high voltage overhead electric utility line and the person responsible for the work to be done.

Mississippi One Call Law

All persons preparing to dig must call 811 or utilize the online E-locate system two days prior to the beginning of any work. Underground facilities will be marked using the color code system and then work may proceed.

§ 77-13-1 It is the intent of the Legislature to protect underground utility facilities and other underground facilities from destruction or damage, in order to prevent death of or injury to persons, property damage to public and private property, and loss or interruption of essential utility services to the general public.

GROUP IDENTIFYING COLOR: UTILITY OR TYPE OF FACILITY

- SAFETY RED: Electric

- HIGH VISIBILITY SAFETY YELLOW: Petroleum Product / Hazardous Flammable/Corrosive Toxic Materials, Product and Steam Lines, Gas or Gaseous Material

- SAFETY ALERT ORANGE: Telecommunications (including fiber optic) and CATV

- SAFETY PRECAUTION BLUE: Potable Water***

- PURPLE: Reclaimed Water, Irrigation, Slurry Lines

- SAFETY GREEN: Sewer and Drain Lines

- HIGH VISIBILITY PINK: Temporary Survey Markings

- WHITE: Proposed Excavation

Effect	Current (milliamps)
Tingling sensation/perception	1-4
Let-go current – Children	3-4
Let-go current - Women	6-8
Let-go current – Men	7-9
Skeletal muscle tetany	16-20
Respiratory muscle paralysis	20-50
Ventricular fibrillation	50-120