



Company Name: _____ Job Site Location: _____

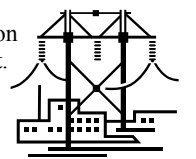
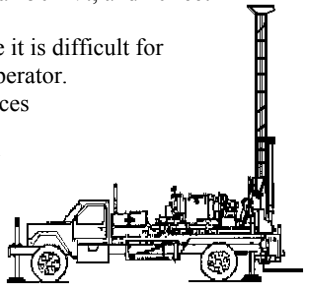
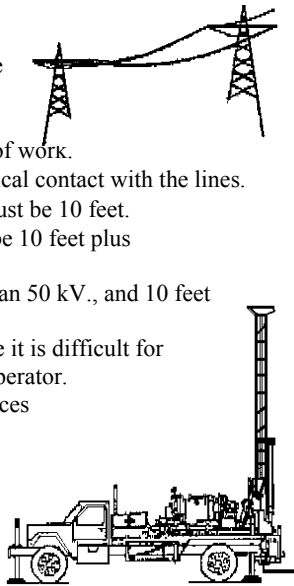
Date: _____ Start Time: _____ Finish Time: _____ Foreman/Supervisor: _____

Topic 348: Power Lines and Equipment Operations (Part A- OSHA Requirements)

Introduction: Electrocutation and serious injuries from electricity are far too common among workers operating aerial devices or tools in the vicinity of overhead power lines. OSHA has established regulations for the use of aerial devices or tools where there is the possibility of contacting power lines. Following are guidelines for safety when using aerial devices near overhead power lines:

Clearance or Safeguards Required under Fed. OSHA § 1910.67 & § 1910.333:

- **The operation**, erection, or transportation of any tools or equipment, or the moving of any building near high-voltage lines is prohibited, if at any time it is possible to come within 10 feet of the high-voltage lines.
- **Equipment or machines** may be operated near power lines only as follows:
 - * **Where electrical distribution** and transmission lines have been de-energized and visibly grounded at the point of work.
 - * **Where insulating devices** that are not a part of, or attached to, the equipment have been erected to prevent physical contact with the lines.
 - * **For lines rated 50 kV.** or below, minimum clearance between the lines and any part of the equipment or load must be 10 feet.
 - * **For lines rated over 50 kV.**, minimum clearance between the lines and any part of the equipment or load must be 10 feet plus 0.4 inch for each 1 kV. over 50 kV., or twice the length of the line insulator but never less than 10 feet.
- **In transit with no load** and boom lowered, the equipment clearance must be a minimum of 4 feet for voltages less than 50 kV., and 10 feet for voltages over 50 kV., up to and including 345 kV., and 16 feet for voltages up to and including 750 kV.
- **A person must be designated** to observe clearance of the equipment and give timely warning for all operations where it is difficult for the operator to maintain the desired clearance by visual means. Only one person should be designated to signal the operator.
- **Cage-type boom guards**, insulating links, or proximity warning devices may be used on cranes. The use of such devices will not alter the requirements of any other regulation even if such device is required by law or regulation.
- **Any overhead line** must be considered to be an energized line until the person owning the line or the electrical utility authorities indicate that it is not an energized line and it has been visibly grounded.
- **Prior to work** near transmitter towers where an electrical charge can be induced in the equipment or materials being handled, the transmitter must be de-energized or tests made to determine if an electrical charge is induced on the crane. The following precautions must be taken when necessary to dissipate induced voltages:
 - A. The equipment must be provided with an electrical ground directly to the upper rotating structure supporting the boom.
 - B. Ground jumper cables must be attached to materials handled by boom equipment when an electrical charge is induced while working near energized transmitters. Crews must be provided with nonconductive poles having large alligator clips or other similar protection to attach the ground cable to the load.
 - C. Combustible and flammable material must be removed from the immediate area prior to operations.
- **The 10-foot requirement** is not reduced because of movement due to strain on the structures supporting the high-voltage line or on any equipment, fixtures, or attachments on the structures. This requirement applies to any new position resulting from movement.
- **The employer must** post and maintain in plain view of the operator on each crane, derrick, drilling rig, hay loader, pile driver, or similar equipment that is capable of vertical, lateral, or swinging motion, a durable warning sign legible at 12 feet reading "UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN 10 FEET OF HIGH VOLTAGE LINES."
- **When operations** are to be performed within 10 feet of any high-voltage line, the person or persons responsible for the work must promptly notify the operator of the high-voltage line. The notifying person shall be responsible for completing all required safety measures before proceeding with any work which would impair the 10 foot clearance.
- **Buried power lines** must be anticipated during any excavation operation. Utility locators must be contacted at least 48 hours prior to beginning any excavation to locate and mark existing utilities on a jobsite or work area. Do not assume underground utilities are located under signs alerting operators of the presence of utilities in the vicinity. Lines may be a considerable distance from these signs and utilities must be accurately located prior to digging.



Conclusion: Electrocutation by accidental contact with electrical power lines is a leading cause of serious injury at the worksite. Working in the vicinity of power lines poses a serious hazard and the above guidelines must be followed. This tailgate/toolbox safety meeting is intended for use with **Topic 349: Power Lines and Equipment Operations (Part B – Safe Work Practices).**

Work Site Review

Work-Site Hazards and Safety Suggestions: _____

Personnel Safety Violations: _____

Employee Signatures: _____
 (My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

Foreman/Supervisor's Signature: _____
 These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.