Working Near High Voltage Power Lines

Introduction:

Electricity flows through wires connected to poles, transmission towers and power lines buried under ground. Electricity can "arc" or jump from a power line to a suitable conductor (worker or equipment). The human body is a good conductor or electricity. If contact is made with a live wire or some metal object (mobile equipment, scaffold, and conduit) touching a live wire, there is a potential for electrocution.

Overhead power lines that travel along transmission towers can carry as much as 500,000 volts (500 KV) of electricity. Power lines that travel along wooden poles can carry up to 230,000 volts (230 KV). Underground power lines will carry voltage similar to those carried on wooden poles.

How To Identify Underground Services

A hazard assessment must be conducted prior to conducting any work. The following list is a good rule of thumb for indicating the presence of underground services:

1. Where there are no visible overhead power lines
2. When the area has a pad mounted transformer. The transformer is normally located inside a large green metal box.
3. Where the utility pole has a conduit riser that takes the electrical service down the pole and into the ground.

Minimum Distances To Be Maintained

Voltage	Feet	Meters
750 V to 75 KV	10	3
75 KV to 250 KV	15	4.5
250 KV to 550 KV	20	6