

Electrical Safety Above Ground...



**...and
Underground**



CONTENTS

Section One:

Overhead Line Safety	Page
Introduction	3
Outdoor Electrical Safety	5
Clearance Example.....	7
Emergency Situations	8

Section Two:

Underground Line Facility Protection

Introduction	9
Call Before Digging.....	10

Section One: Overhead Line Safety



Introduction

Each year a number of accidents involving contact with high voltage lines occur. These accidents often result in serious injury or death.

Duquesne Light is committed to transmitting and distributing electricity safely, but we need your help to ensure your safety and the safety of your coworkers.

Federal and state governments share our concern. In an effort to prevent these types of accidents, they have enacted laws to provide safer working conditions in areas near high voltage lines.

In general, these laws make it illegal for any individual, tool, or other object to be within 10 feet of an energized power line for voltages below 50 kilovolts. Distances are increased for voltages above 50 kilovolts.

By law, crane operators are required to contact the electric utility if they will be working within 20 feet of energized power lines.

Within the Duquesne Light System there are higher voltage lines than 50 kilovolts. Therefore, Duquesne Light should be contacted to verify the voltage of power lines within the work area before beginning your work.

Please take the time to review the safety guidelines in this booklet and the OSHA (Occupational Safety and Health Administration) regulations pertaining to working around high voltage power lines.

Remember, when planning to work near overhead power lines, they are **NOT INSULATED. CALL US** (1-888-393-7000, 24 hours a day, seven days a week) so that we can send a representative to your job site to help you make your project safe.

- ❖ We will identify the voltage of overhead power lines located near the construction site or work area.
- ❖ We will assist in developing a safety plan for working close to high voltage lines located near your work site.
- ❖ We will discuss the potential cover-up materials for power lines that are close to work areas and the cost for installation of the cover-up.
- ❖ We will discuss the cost of temporarily relocating the line if other options are not practical.

This is not only a matter of preventing accidents...**it's the law.**

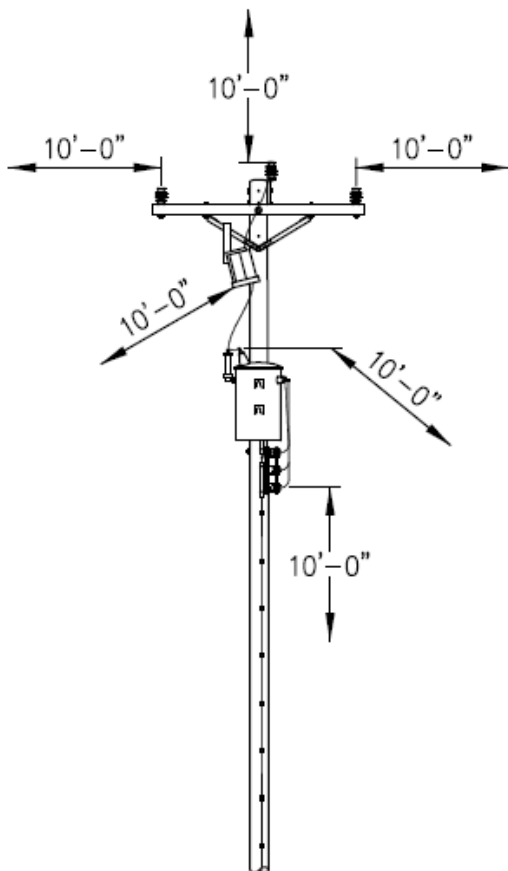
Outdoor Electrical Safety Tips

The following safety tips will help prevent accidental contact with overhead power lines. The most important element of accident prevention is to make safety the number one priority. Failure to take proper precautions near power lines can cost you more than your job.

- ❖ Always **LOOK** for wires before beginning any type of construction work. Pre-job planning is a major factor in preventing accidents.
- ❖ **CALL** Duquesne Light (1-888-393-7000) for a safety survey if power wires are located near your work site. For best results, please give us two weeks' notice (unless it is an emergency situation).
- ❖ **LOWER** booms, truck beds, and other construction equipment before proceeding under electric lines.
- ❖ Keep ladders, scaffolding, antennas and other equipment more than **10 FEET AWAY** from power lines for voltages less than 50 kilovolts.
- ❖ Operating a crane or any other piece of equipment with a boom, insulating links or proximity warning devices are often helpful in preventing accidents, but the use of such devices does not alter OSHA and state law requirements for high voltage lines.
- ❖ Crane operators are required by law to call electric utilities if they will be working within 20 feet of overhead conductors.

- ❖ Designate one person whose vision is unobstructed to guide machine operators whose vision may be obstructed.
- ❖ Keep fellow workers aware of the hazards of power line contacts.
- ❖ Never touch a downed power line. **ALWAYS** assume a power line is energized.
- ❖ **NEVER** use ladders with metallic rails near power lines.
- ❖ Pool skimmers, paintbrush extensions and other similar tools should be of a **NON-CONDUCTING** material and must be kept a minimum of 10 feet away from power lines for voltage less than 50 kilovolts.
- ❖ Do not attempt to touch or trim trees that are closer than 10 feet to any power lines for voltages less than 50 kilovolts. Contact Duquesne Light for assistance.
- ❖ Qualified tree trimmers and all equipment must remain at a minimum of 10 feet from power lines for voltage less than 50 kilovolts.
- ❖ Contact Duquesne Light Company for verification of voltage.

CLEARANCE EXAMPLE FOR VOLTAGES BELOW 50KV



Keep a 10-foot clearance from any energized electric part for voltage less than 50 kilovolts.

Power line contacts can kill!

What To Do In An Emergency

If equipment or a person becomes energized by contacting electric lines, take the following steps at once:

- 1) Keep everyone away from the equipment.
- 2) Caution the operator not to leave the equipment until the contact between the equipment and electric wires is broken. If it becomes necessary to leave the equipment, the operator should jump clear of it so no parts of the body are in contact with the equipment and the ground at the same time.
- 3) Call 911 and then call Duquesne Light at 1-888-393-7000. Keep everyone away from fallen wires. Wires which are apparently dead may be reenergized suddenly. Assume all downed wires are energized at all times.
- 4) Do not touch any person, vehicle, or equipment that is in contact with electrified equipment.
- 5) If a person contacts an energized electric line, wait until the person breaks contact with the line. After the victim has been cleared from the contact, move a reasonable distance away from the site, and give CPR immediately if he or she is not breathing.

Section Two: Underground Line Safety And Facility Protection



Know what's **below**.
Call before you dig.

Introduction

Although most electric lines are overhead, more and more electrical service facilities are placed underground each year. This increases the chances of someone digging into underground electric lines.

LOOK FOR WARNING TAPE OR CONCRETE

Stop digging immediately if you find the red tape pictured below or yellow tape or if you encounter concrete.



Call Before Digging

Pennsylvania state law places responsibility on individuals working near underground utility facilities to use the PA One Call System. You can avoid injuries, damage to underground lines, and delays by calling the One-Call number 1-800-242-1776 or 811 before you dig or excavate.

Making the call is the most prudent thing to do. If you dig without calling, you are responsible not only for injury or death to yourself or others, but also for any damage caused by digging into underground utility facilities. That's the law!

The Occupational Safety and Health Administration (OSHA) requires before digging that you contact the PA One Call System or 811, which will contact the local electric utility, to determine if there are any underground electrical facilities in your work area.

It is best if you make the call when your job is in the planning stage. In that way, you will avoid the expense and delay of having to make changes after your work has begun.

It is easy to comply with this law. Duquesne Light is a member of the One Call system in our entire service territory. This service is designed so that you need to make only one toll-free telephone call to notify all member utilities about digging projects. The One Call operator will take the location, date and time of digging. This information is then given to all member utilities who will contact you with information about the location of underground cables and facilities near or in your work site. You must call at least 72 working-hours

before starting to dig. Simply dial toll-free 1-800-242-1776 or 811.

Before you call, please determine the tag number of the nearest utility pole, pad-mounted transformer or underground secondary or vault cover. This will help pinpoint your location when you call. Once we have your location, we can advise you if there are any underground electrical facilities in your digging area.

When planning to dig or excavate in Pennsylvania call:

PA One Call 1-800-242-1776 or 811

Refer to all OSHA regulations relevant to working near electrical power lines.

NUMBERS TO REMEMBER

**PA ONE CALL
CALL BEFORE YOU DIG**

811 or
1-800-242-1776

**DUQUESNE LIGHT COMPANY
EMERGENCY NUMBER**

1-888-393-7000

WORK SAFELY!

**ALWAYS ASSUME A POWER LINE IS
ENERGIZED!**