

What Are the Dangers of Electricity?

Contact can cause explosion, fire, electrocution.

On the worksite

- Equipment contacting a live electrical line can cause fire, explosion, or electrocution
- Electricity can arc from the line to the equipment
- Electricity can cause severe burns and death



Work around electricity only

- When you are trained in all aspects of the job
- When you have a reason to be there



Electrical Hazards

ROADWAY SAFETY



How Do We Treat Above-Ground Utilities?

Use extreme caution and keep your distance.

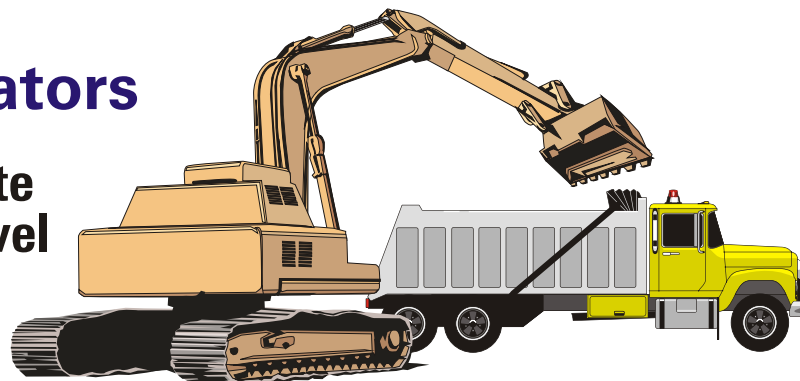
When working around a power line



- Get the utility company to mark, flag, and shield lines
- Assume it is live until tested, have it de-energized and visibly grounded
- If it must remain energized, keep equipment and load at least 10 feet away and use a spotter to warn the operator
- Post signs at ground level to mark safe distance
- Make all workers and drivers who must enter the area aware of the overhead lines

Tips for operators

- Mark a safe route for repeated travel
- Slow down



Minimum Safe Distances Power Lines	
Voltage	Distance
50 kV or below	10
> 50 - 200 kV	15
> 200 - 350 kV	20
> 350 - 500 kV	25
> 500 - 750 kV	35
> 750 - 1,000 kV	45
More in fog or rain	

BEGIN
INSTRUCTION
ZONE

Electrical Hazards

ROADWAY SAFETY

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What If Contact Happens?

Do not touch equipment or person in contact.

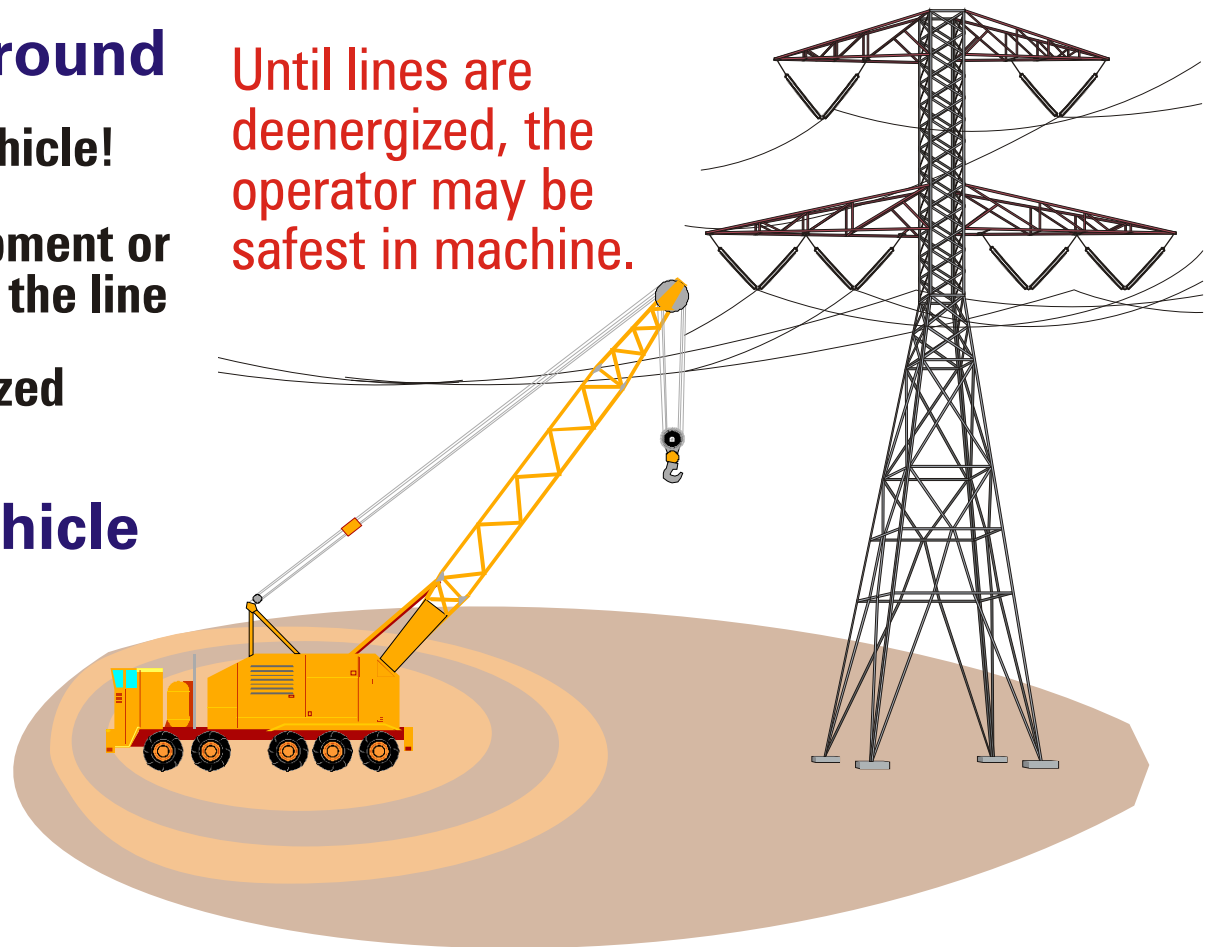
If you are on the ground

- Stay away from the vehicle!
- Do not touch any equipment or person in contact with the line
- Get the lines de-energized

If you are in the vehicle

- Stay in the vehicle and do not touch any metal
- If you must get out, jump clear, then shuffle slowly away

Until lines are deenergized, the operator may be safest in machine.





Electrical Hazards

ROADWAY SAFETY



Can We Be Safe Around Buried Utilities?

Contact can cause explosion, fire, electrocution.

Before digging

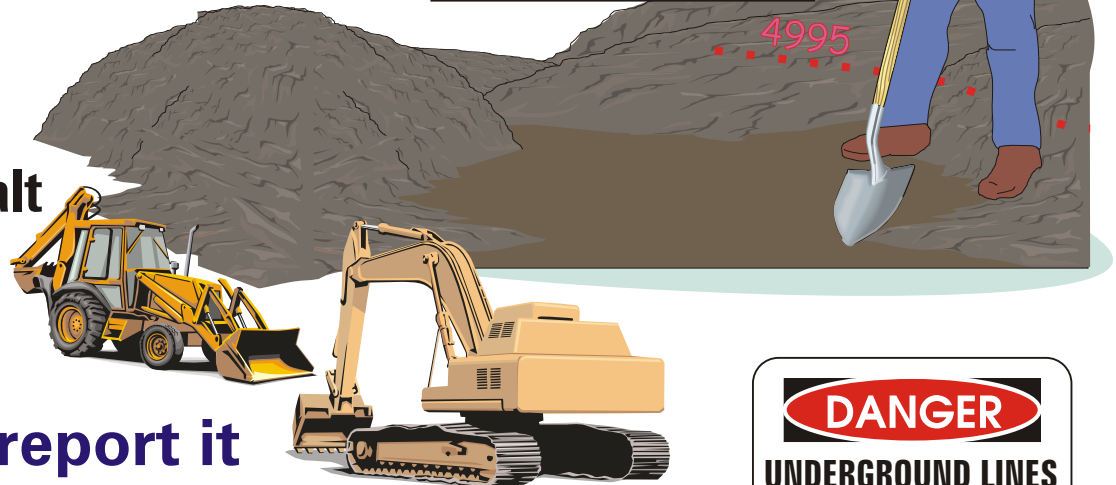
- Call electrical, gas, and communications utilities
- Review marked out areas. They may not be exact. Dig by hand within 2 feet of mark-out.

Color Codes Painted on Surface
Gas Line - includes liquid and propane
Electric
Water
Sewer
Telecommunications - includes cable TV, copper, fiber optics)



When digging, look for:

Signs of previous digging: changes in soil types, asphalt patches or depressions, concrete, plastic, or gravel



If a line is hit, you must report it

If it's a gas line, evacuate and secure area, call fire department

