

Hazards with utility poles start from the ground up

Plan the job from the pole yard to the jobsite

Utility poles present hazards from the time they are delivered to the worksite until long after their use is ended and they are removed. That's why it is important to always consider what those hazards are and how best to deal with them.

Utility poles come in various heights, grades, and materials. They range from 30-foot, Grade 2 cedar to 60-foot, Grade G concrete. Each has its own unique qualities and safety issues.

Not all procedures and practices listed here will satisfy every situation or meet every requirement. **Before any work begins with pole handling, a hazard analysis or job safety analysis must be done. A tailboard talk must be held and documented every day, and all appropriate personal protective equipment (PPE) must be used.**

The pole pile

A pile of poles can look quite stable even when it is ready to topple over. It is important to check the stability of the pole pile before climbing on top. The preferred method for lifting a pole is to lift it from one end to move it to a more stable area of the pile. It is even safer to avoid climbing on the pile if that is possible. Stay clear of the pole bin whenever making a lift. When piling poles, do not put any of them in a dangerous position, and make sure the pile is stable when you leave.

The pole trailer

When loading poles onto a trailer, make sure the truck is stable before beginning work. Check the load charts to make sure the lift can be made safely. Check the winch line and the drum. And to prevent shock loading, do not allow the line to run up one side of the drum. **If the poles require stabilizing on the trailer, use a cant hook and stay away from any pinch points.**

The worksite

When the pole is dropped off, new hazards may be encountered, including traffic, overhead powerlines, and more.

Take all necessary precautions to protect the crew by setting up proper work area protection (see Ontario Traffic Manual Book 7).

When unloading poles:

- Check overhead for communications cables and powerlines, and remember the electrical safe limits of approach.
- Obtain all necessary locates, and stay clear of the auger while unloading the poles.
- If working close to live lines, obtain a hold-off and ground the truck or, if possible, have the circuit isolated and grounded.
- If the circuit is to remain energized, install cover-up on the lines and use pole guards.

Anyone in contact with the pole should use a rope or cant hook to guide the pole and wear the right class of rubber gloves as well as all other PPE.



Pole removal

When removing poles, many of the same precautions and barriers are needed as when they were being installed. **A pole jack is highly recommended in the removal of poles as it lowers the stress on the boom considerably.** The pole jack comes with a pinch hazard, so be aware of that when working with this tool. When removing poles, make sure the properly rated sling is used and is high enough above the balance point.



Poles come with different shapes, sizes, and hazards

Today's utility poles have moved beyond just the traditional cedar, pine, or even steel or concrete to include new hybrid plastic-and-wood composites and fibreglass. While these new,

modern poles have many advantages over the old styles, they also come with their own problems.

One of the most significant differences between the new poles and the old is weight. Concrete poles weigh more than twice as much as cedar or pine and more than three times as much as steel. Concrete poles over certain heights will require special installation equipment.

Keep in mind that, in some cases, moisture will add to the weight of a pole. It is important to understand the various weights involved when preparing for lifting and installation.

As well, poles made of fibreglass, composites (wood-and-plastic mix), and steel and concrete combinations are all being researched and installed.

Pressure-treated wood poles have become popular due to their longer life and cleaner appearance, but again, they come with their own unique hazards. Pressure-treated poles that contain chromate copper arsenate (CCA) should be treated with caution. This substance is associated with potential skin and eye irritation, allergic reactions, and in some cases, cancer. Wear gloves and long-sleeved shirts when handling them, and never burn them.

For the birds

A long-standing problem with wood poles is their attraction for some of our feathered friends. Woodpeckers in particular have taken a liking to the new pressure-treated poles as nesting locations. The nest holes are a hazard when you are climbing. They can also make it difficult to change hardware from a bucket. If the holes are small enough, an epoxy patch can be applied to fill them, but sometimes that doesn't solve the problem. The woodpeckers may simply return to the pole and make a new hole. In some cases, the only answer is to replace the pole. **Remember, when removing cedar and pine poles, watch for those that may still have creosote butts. Creosote must be disposed of properly.**

As an alternative to wood, steel poles are lighter, longer-lasting, non-shrinking, recyclable, and also woodpecker-proof. The drawbacks include rusting and less flexibility.

Another option is concrete. Concrete poles offer a clean appearance, pre-drilled holes, and superior strength (they can be made to be self-supporting). They are also woodpecker-proof. On the down side, the rebar used to strengthen the concrete can rust and, of course, concrete is extremely heavy.

The latest poles in design are made of fibre-reinforced plastics. They weigh less than a third of a wood pole of the same size and grade, and they come in sections for easy transport. These "plastic" poles have many advantages: they are strong, resist ultraviolet rays, can be drilled, are non-toxic to the environment, and are long-lasting. However, they are more expensive than traditional poles and cannot be climbed.

Each kind of pole has pros and cons, and each comes with specific hazards and work procedures. Whatever kind you decide on, always keep all possible hazards in mind and ensure that all workers know exactly what their jobs are when working around utility poles.