

The Top 10 Things You Need to Know When Working Around Electricity

1 Electricity is one of the leading killers in tree care.

All overhead conductors, including service drops and communication wires, shall be considered as energized with potentially fatal voltage. Workers must keep themselves, as well as any conductive objects they may be touching, at least 10 feet away from all conductors.

2017 ELECTRIC HAZARD INCIDENTS

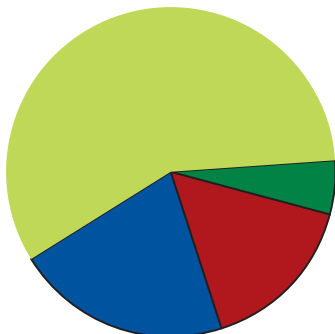
Indirect contact

Conductive tools - 11

Tree limb - 1

Direct contact - 3

Unknown - 4



December 2, 2015 – A man trimming trees with a pole saw at a residence was electrocuted in Kailua-Kona, Hawaii. When patrol officers arrived, the man was lying in the road with burn marks and next to a long tree-trimming pole, which also had burn marks. He was taken to the hospital, where he was later pronounced dead. Police said he had been trimming branches near power lines.

2 Electricity will seek a path to ground through any conductive object.

Examples of conductive objects include metal tools, un-insulated aerial lifts, tree branches, ropes, dirty or wet pole tools, extension cords and, of course, the human body.

June 16, 2017 – A man lost part of his arm while moving a branch that was in contact with a downed power line. Apparently, the branch had fallen on a live power line, which then fell on a nearby vehicle. The man attempted to remove the branch from the car and was shocked. His neighbor had to separate the man from the wire with a rake.

3 Accidents occur when hazards go undetected.

When the crew arrives at a work site, the first thing they should do is inspect the site for hazards, including overhead lines that enter the area.

October 4, 2017 – A man who was contracted to trim some limbs at a house was electrocuted in Odessa, Texas. It was unclear if he or the equipment he was using contacted the power line, but he was pronounced dead at the scene.

4 Storms increase risk.

Downed trees mean downed wires. Conductive objects like chain link fences, aluminum gutters and even the water-saturated ground itself can become energized.

October 7, 2010 – A worker for a tree trimming service was electrocuted near Alto, Michigan. The accident happened around 7:30 pm, well after dark. The man was clearing tree limbs and brush when he grabbed a downed, live electrical wire tangled in the vegetation.

5 Even insulated equipment will not protect you...

... if you simultaneously make contact (directly or indirectly) with the conductor and some other path to ground, such as some part of the tree.

December 14, 2017 – A person was killed in Pinecrest, Florida, after a tree limb fell onto a power line, which then hit what was reported as a landscaping truck. According to a news report, workers jumped off the truck when the incident occurred, but one worker accidentally touched the truck and was electrocuted.

6 You don't have to be in the tree, or even close to the conductor to be exposed to the electrical hazard.

Contact with electrical conductors can happen even if you are at a distance from the wires.

May 10, 2016 – A tree worker was hospitalized in fair condition after he received a severe electrical shock while cleaning rain gutters in Salt Lake City, Utah. The 27-year-old man was injured when one of the gutters came into contact with a live power wire, according to a news report.



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7 “Step Potential” is a killer.

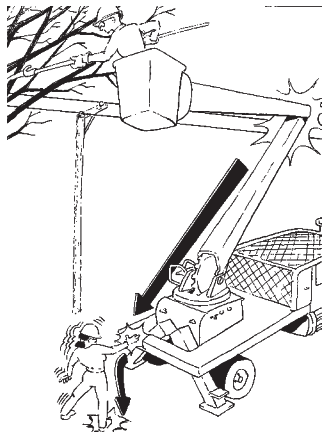
Step potential is a phenomenon where the ground around an energized piece of equipment, and other objects in the immediate area, can become energized. Touching an energized piece of equipment or even walking into or out of an area of step potential can lead to fatal electrical shock.

June 13, 2012 – A tree worker was electrocuted in Newbury, New Hampshire, when a crane he was working near came into contact with a high-voltage electric line. The worker was standing with his hand on a detached chipper 20 feet from the crane. Electricity traveled down the crane, through the ground and into the wood chipper.

8 Get your bucket truck tested or know its limitations.

When it rolls off the assembly line, the typical tree care aerial lift with fiberglass upper boom and lower boom insert is an insulated piece of equipment. Ensure it stays that way by keeping the booms clean, dry and well maintained, and by having it dielectrically tested at least once per year. Beware, most scissor lifts, backyard lifts and rental yard lifts are not insulated!

August 30, 2017 – An aerial lift operator was electrocuted in Loyall, Kentucky, when the boom of his bucket truck contacted a power line while he was trying to reach tree limbs. He was pronounced dead at the scene, according to a news report.



JUST SAY NO!

Taking on a tree job with overhead electrical conductors in the immediate work area means taking on the biggest risk in what is one of the most hazardous occupations. Do you have the right people, with the right skills and knowledge, the right tools, the right equipment, and the right insurance? Unless you can answer “yes” to all those questions with confidence, then you should consider referring or sub-contracting that job to a colleague in the Tree Care Industry Association who is properly equipped to deal with the hazards.

9 Aluminum ladders do not belong at a tree-care worksite!

Extension ladders can seem like great assets because they're lightweight and relatively inexpensive. But they dramatically increase the crew's risk when electrical hazards are anywhere in the vicinity.



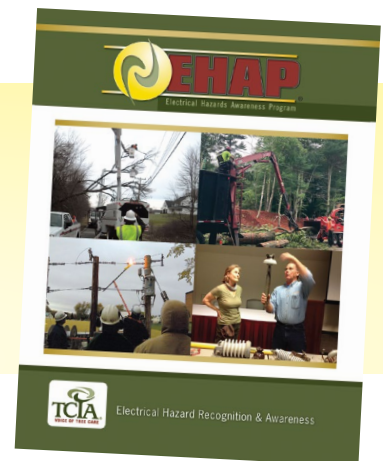
March 2, 2017 – One man was killed and another severely injured, and later died of his injuries, after coming into contact with a power line while trimming a tree in Addison, Illinois. One of the men was stuck in a tree and the other had been thrown from a ladder. Police said the men appeared to be private homeowners and not employees of a landscaping service, according to a news report.

10 Workers need training!

Workers who will be exposed to electrical hazards need specific training on how to recognize and avoid them. Language barriers and even literacy are not excuses not to train.

October 10, 2016 – A Martin County Parks and Recreation employee trimming trees near power lines from an aerial lift suffered electrical shock in Port Salerno, Florida. The 47-year-old man was pruned trees in the wake of Hurricane Matthew when he was shocked and burned by the power line. A co-worker called 9-1-1 and said he couldn't get his boss down because he didn't know how to do so. The burned employee was flown to a hospital in Miami with traumatic injuries, but was conscious and breathing, according to a news report.

Check out tcia.org for the information on our Electrical Hazards Program (EHP)!



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