Tree Worker Electrocuted from Power Lines While Trimming Trees

INCIDENT HIGHLIGHTS

DATE: September 8, 2021

VICTIM: 25-year-old tree trimmer

EMPLOYER: Tree and Landscape company

SCENE: Residential tree trimming site

LOCATION: Massachusetts

EVENT TYPE: Electrocution

WHAT HAPPENED?

A crew of tree workers was cleaning up at a residential job site. Across the street, one of the tree workers started trimming the tree at the next job site. He was using a pole saw in a non-insulated aerial lift when the saw came in contact with a high-voltage electrical line. The worker was electrocuted as the current traveled through the lift to the ground. Responders had to shut off power to the line in order to safely lower the lift basket to the ground.

**HOW COULD IT BE PREVENTED?**

Employers should:

1. **Survey the area for hazards before work begins** to address them properly.
   * If the task changes (for example, a new location, as in the incident described above), the new area and tasks should be reassessed.
2. **Notify the utility company** when an aerial bucket truck or other boomed vehicle must operate near a power line or when work must be performed.
   * Options for protecting workers: de-energizing and grounding the power lines or covering them with insulating hoses or blankets.
3. Ensure that workers adhere to safe work procedures and maintain **a minimum of 10 feet** working distance from energized conductors and overhead lines.
4. Prohibit the use of conductive tools or materials where they may contact overhead power lines or electrical conductors.

* Employers must provide **insulated nonconductive tools** and materials free of moisture and contaminants.

1. Develop **comprehensive emergency and safety plans** including electrical hazards.
2. **Provide trainings** to tree workers and aerial lift operators that include:
   * Electrical safety including hazards of feedback electrical energy and downed power lines.

* Cardiopulmonary resuscitation (CPR).
  + Hazards associated with the hoisting of personnel, equipment, and materials near energized overhead power lines.
  + Positioning of the boom to maintain at least 10ft from energized overhead power lines.
  + Procedures for emergency situations: for example, inadvertent contact of the boom with an energized power line.
  + Emphasize that most overhead high-voltage power lines are not insulated.
  + Direct workers to assume that all power lines are energized and to avoid all direct or indirect contact until the lines are verified as being de-energized.

1. Provide **nonconductive personal protective equipment** (such as headgear, gloves, insulated footwear etc.) and enforce its use.

There’s a picture of an Nifty SD 4x4x4 ariel lift, curtesy of Aerial Titans.

For more information, visit [Preventing Falls & Electrocutions During Tree Trimming (cdc.gov)](https://www.cdc.gov/niosh/docs/92-106/default.html#:~:text=Many%20tree%20trimmers%20have%20died%20from%20falls%20or,falls%20and%20electrocutions%20during%20tree%20trimming%20or%20cutting.) and [Electricity and Tree Care Work (osha.gov)](https://www.osha.gov/sites/default/files/publications/OSHA3861.pdf).

If you need assistance implementing a health and safety program, find resources at [On-Site Consultation Program (mass.gov)](https://www.mass.gov/on-site-consultation-program).

This narrative was developed to alert employers of a tragic incident. Developed by MA State Fatality Assessment and Control Evaluation (FACE) program in the Occupational Health Surveillance Program (OHSP) at the MA Department of Public Health. The FACE program is supported by a grant from the National Institute for Occupational Safety and Health (NIOSH). For more information, visit <https://www.mass.gov/fatal-work-related-injuries>