

Father and Son Painters Electrocuted when Ladder Contacts Power Line

INCIDENT FACTS

REPORT #: 71-210-2021s

REPORT DATE: September 17, 2021

INCIDENT DATE: November 7, 2020

WORKERS: 55 and 27 years old

INDUSTRY: Painting and carpentry contractors

OCCUPATION: Painters

SCENE: Exterior of church

EVENT TYPE: Electrocution



A 55-year-old painting and carpentry contractor and his 27-year-old son were both electrocuted when the aluminum extension ladder that they were moving contacted an overhead power line.

For the past month, the contractor and his son along with three other members of their painting crew had been painting the exterior of a two-story church that had a 60-foot steeple. It was a windy day. The wind was blowing at 15 to 30 mph with gusts up to 40 mph.

They had finished painting for the day and were cleaning up the site.

The contractor and his son were moving the aluminum extension ladder that was at its full extension of 48 feet. The contractor and his son held the ladder in the vertical position as his son attempted to retract the ladder's extension. A gust of wind blew the ladder onto a 14,460-volt overhead power line.

Electrical current traveled from the power line through the conductive aluminum ladder. Both were electrocuted. The contractor died at the scene and his son died nearly a month later.

Investigators found:

- 1) Measures were not in place to protect against the ladder contacting the energized power line.
- 2) No account was taken of windy conditions when handling the ladder.
- 3) The distance from the power line to the face of the building was 10 feet 8 inches.



Photo 1. Incident scene showing the church that the contractor and crew were painting.



Photo 2. View of the church exterior where the extension ladder contacted the overhead power line.



Photo 3. View of the church steeple and proximity of the overhead power line.



Photo 4. The 48-foot aluminum extension ladder that contacted the overhead power line.



Photo 5. Top of the extension ladder showing burn marks where the ladder contacted the power line.



Photo 6. The sidewalk with burn marks where the ladder had been placed.

Requirements

If work is to be performed near overhead lines, the employer must deenergize and ground the lines, or they must provide other protective measures before work is started. If the lines are to be deenergized, the employer must make arrangements with the person or organization that operates or controls the electric circuits involved to deenergize and ground them. If using protective measures, such as guarding, isolating, or insulating, these precautions must prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment.

See [WAC 296-155-428\(17\)](#)

Requirements

Employers must use ladders with nonconductive side rails where the ladder could contact uninsulated, energized electric lines or equipment.

See [WAC 296-876-40035](#)

Recommendations

- Identify the location of overhead power lines as part of all initial worksite surveys for jobs involving the use of ladders. Note power line heights and distances from work areas on site diagrams and provide information to site supervisors and workers.
- Perform a job hazard analysis of the worksite.
- Use non-conductive ladders around power lines.
- Lower the extension ladder and transport it horizontally.
- Be aware of windy conditions while moving a ladder near power lines.

Resources

Preventing Worker Deaths and Injuries from Contacting Overhead Power Lines with Metal Ladders.

www.cdc.gov/niosh/docs/wp-solutions/2007-155/pdfs/2007-155.pdf

This bulletin was developed to alert employers and employees of a tragic loss of life of a worker in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

Developed by Washington State Fatality Assessment and Control Evaluation (FACE) Program and the Division of Occupational Safety and Health (DOSH), Washington State Dept. of Labor & Industries. The FACE Program is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH grant# 2U60OH008487). For more information visit www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face.