

Tree Trimmer Dies when Tree Removal Rigging Fails

INCIDENT FACTS

REPORT #: 71-234-2023s

REPORT DATE: February 27, 2023

INCIDENT DATE: November 19, 2020

VICTIMS: 28 years old

INDUSTRY: Landscaping services

OCCUPATION: Tree trimmer

SCENE: Private residence

EVENT TYPE: Struck against



A 28-year-old tree trimmer died after he fell down an embankment, hitting his head against a rock.

He worked for a commercial and residential tree service and landscaping company on an as-needed basis for five years. He received on the job training from his employer.

On the day of the incident, he was part of a four-person crew removing a 127-foot fir tree from a residential property. The employer was not on site to supervise.

The crew planned to use a lowering device (port-a-wrap) to lower tree sections and limbs.

However, they did not have a rope long enough, so they tied two ropes together. The knot tying the ropes together would not fit in the port-a-wrap so they did not use it. Instead, they wrapped the rope twice around the tree for friction to lower the tree sections.

A climber then worked from the tree rigging and cutting sections while the tree trimmer and another worker held the rope for lowering the sections to the ground.

The climber cut off a 330-pound section from the tree. It fell about one foot before the rope holding it became taut. The weight of the section caused shock loading on the rope, which lifted the tree trimmer and the other worker off the ground.

The workers struggled to control the section as its momentum pulled them toward an embankment.

The tree trimmer lost his grip on the rope, stumbled, and fell backwards down the embankment, hitting his head on a rock.

He died at the scene.

Following the incident, investigators found:

- Due to the rigging design and weight of the section they were lowering, the ground workers were unable to control it during descent.
- The employer did not develop a formal, written accident prevention program (APP) tailored to the needs of the particular workplace or operation and to the types of hazards involved.
- There was no qualified person to supervise at the site.



Photo 1. The 127-foot fir tree the crew was rigging and lowering in sections to the ground by rope.



Photo 2. A post-incident recreation shows where the ground workers were positioned when they started lowering the tree section with a rope. The figure on the left is where the fatally injured worker was standing.



Photo 3. Embankment down which the tree trimmer stumbled and fell backwards. The rock on which he hit his head is circled.



Photo 4. Close-up of rock on which the worker hit his head.



Photo 5. Incident scene with 330-pound section at bottom of embankment down which the worker fell.



Photo 6. The 330-pound, 6-foot long, 16-inch diameter section.

Requirements

- Provide and use safety devices, safeguards, and use work practices, methods, processes, and means that are reasonably adequate to make your workplace safe. See [WAC 296-800-11010](#)
- Develop a formal, written APP. See [WAC 296-800-14005](#)

Recommendations

FACE investigators concluded that, to help prevent similar incidents:

- Develop APP policies that require a [Job Hazard Analysis \(JHA\)](#) with worker participation for each job. A JHA would have identified the hazardous rigging and lowering practices and the potential for being struck by the uncontrolled tree section.

Recommendations

Have a qualified arborist:

- Make decisions about safe and controlled tree removal practices.
- Train and directly supervise workers involved in tree work.

Recommendations

Use ANSI Z133 American National Standard for Arboriculture Operations - Safety Requirements to:

- Train workers and ensure they use proper tree removal methods.
- Understand and account for additional forces resulting from the rigging design, rope angles, and the number of lines and/or line parts that will act on any rigging or anchor point.

This narrative was developed to alert employers and workers of a tragic incident 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.

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