

“Transmission Incident”

The Whole Story!



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Actual Case Study

A photograph of a 230kV power line tower in a wooded area. The tower is a wooden structure with cross-arms supporting several high-voltage lines. The background is filled with dense green trees and a clear sky. The text is overlaid on the image in white with a slight shadow for readability.

On June 4th, 2015, a 230kV line experiences a momentary outage after sagging into a tree in the right-of-way.

The vegetation management schedule requires annual inspection of all 230kV lines.

This line was inspected on April 6th, 2015. Two months earlier!

Office Conversation

Coworker: Where have you been?

Jeff: I've been coaching the Event Learning Team where the 230kV line contacted the tree.

Coworker: I bet that didn't take long! How does someone miss that? Is he still working here? He shouldn't be!

Jeff: You want to hear the story?

Coworker: Yea..., I bet it's a good one!

The tree measured 31'11"

**Located in a backyard,
inside of a chain-link fence
and surrounded by junk
cars.**

**This section of line is
ground patrolled because
it is in a "No Fly Zone."
(Cannot fly below 1000' in
residential areas-FAA)**





Overhead Photo

The employee inspected the tree while sitting in his pickup truck from the street, approximately 150' from the tree.

A three-phase distribution line was in the same right-of-way.

The inspector identified the top four wires as the shield wire and three conductors.

Those below he identified as distribution conductors.



This 230 circuit is a bundled conductor circuit and the top four wires were actually the bundled top and middle phases.

This is the only bundled conductors that are ground patrolled and

the only bundled conductors without spacers, due to the short spans.



Quarterly ground inspection discontinued in 2013.

Once patrolled five times a year by several employees... now patrolled once per year by one employee.

Bush hogged in 2014

Side trimmed in 2013



The Inspector

Responsible for all vegetation management activities covering twenty-three counties in the state.

A 34-year employee who has met or exceeded expectations his entire career and takes full responsibility for this event!

His wife was diagnosed with cancer and was receiving treatments at MD Anderson Cancer Center in Houston, TX.

In the previous 12 months, a utility worker was murdered in this same neighborhood!

Final Comments

Jeff: Does hearing the story make you feel differently about how this happened?

Coworker: Wow! I feel terrible that I said what I said! What happened to him could have happened to anyone.

Corrective Actions

Reactivate the quarterly inspections of “No Fly Zone” right-of-ways

Provide training for all employees and contractors who may be assigned vegetation management inspections

Include language in the VM guidelines to require all inaccessible right-of-ways to be inspected on foot.

Note: If these areas are in a residential yard or unsecured areas, at least two employees should be present

In Summary

“Why” is a good question..., but “How” is a better one!

It’s important to determine “what influenced the actions or decisions of workers”

Incident recurrence is prevented through “Learning!”

You have to be able to tell the story!

Questions?