



Polywater® UPR™

Wood-Pole Repair at Duke Energy® Lineman's Rodeo



The Challenge - Woodpecker Damage

Duke Energy® line workers from around the state compete in hurt-man rescues, equipment repair, and pole-climb competitions during the annual rodeo. They are judged on speed, agility, technique, and safety procedures. A week prior to the 2020 Duke Energy Lineman's Rodeo in Florida, the pole yard was constructed. Two days after setting the poles, the staff identified two poles which already had woodpecker damage. The first pole had a 1-inch-deep hole and the other pole was significantly hollowed out.

The Solution - Polywater UPR Pole Repair

In order to avoid the time and expense of replacing a pole, the rodeo organizers planned to repair the pole and leave it up for the event. They determined Polywater® UPR™ would be the right product for this situation. UPR is a two-part foam that mixes in the nozzle when applied. Since epoxies' interaction temperature can reach up to 300°, a no-touch application is the safest method. UPR's unique formula expands to fully fill the void, even above the entrance. No additional drilling is required which is safer and saves time. It was determined that the hollowed-out pole was compromised and was replaced, but UPR was applied to determine its effectiveness on significant woodpecker damage.

The Result - A Gaff-able, Load-Bearing, Repaired Pole

The smaller hole, once repaired, remained up for the rodeo event. The pole was inspected and determined to be gaff-able and load bearing—both qualities needed for the upcoming competition. Cross sections of the repaired, hollowed-out pole, shown above, were examined. It was determined that UPR had bonded to the wood. This prevents moisture and future degradation of a pole. Also, UPR fully sealed the hole, from the bottom to the top, due to its 3x expansion. Polywater UPR is a safe and effective solution for minor or extensive wood pole damage.



The Challenge

Wood-pole damage - woodpecker



The Solution

Polywater UPR Pole Repair



The Result

A gaff-able, load-bearing, repaired pole



A closer look at what went into repairing the damaged poles.



In the two pictures above you can see what the pole would've looked like after the field repair was made and before it was cut open.



In these next two pictures to the left, you see a cross section of the pole where the repair was made. The first picture shows a good section of the pole beside a repaired section. The second picture shows both cross sections of the repair, top and bottom.



Polywater UPR expanded into the walls of the cavity created by the woodpecker and successfully filled the void.

