UPR-NF Provides Performance at the Extreme

Polywater® UPR™ Saves Customer Time and Money with Remote Pole Repairs

THE CHALLENGE

Extreme Cracks Due to Weather and Environment.

A large oil and gas facility in northern Alberta had more than 60 severely cracked wooden utility poles that were further damaged by woodpecker foraging. The poles either needed to be replaced or repaired to limit further damage and loss of mechanical integrity. Due to their remote location, the logistical costs of moving new poles to the site were too high to justify replacement. The maintenance crew decided to repair the existing wooden utility poles. The company needed a product that could fill the voids and halt the damage from pests and moisture. So, they reached out to Polywater to inquire about a product solution that could fill the cracks while preventing further damage to their utility poles.

THE SOLUTION

Extending the Life of the Poles with Polywater UPR-NF

Long, deep splits in the 60-foot poles required a repair product that could stay in place in the voids to protect the interior of the poles over the long term. After testing at Polywater's lab and in the field, Polywater recommended its Utility Pole Repair (UPR-NF) "No Flow" Utility Pole Repair product for the application. UPR-NF is formulated to thicken immediately to reduce product waste through cracks, voids, and large cavities. The heat generated during UPR's curing phase is high enough to kill many of the microbes responsible for potential wood rot in poles. Using UPR-NF also prevents further physical deterioration to the interior of the Class 1 poles, reducing the risk of mechanical failure. Filling voids, prevention of rot and, improved mechanical integrity all contribute to extend the physical and economic lifetime of damaged utility poles.

THE RESULT

A Cost-Effective and Efficient Solution

The on-site crew finished the pole repairs in August 2019. A cost/benefit assessment showed significant savings by using Polywater's UPR-NF compared to installing new poles. The company was able to restore its damaged utility poles for a fraction of the cost of their replacement. The cost of a 60-foot Class 1 pole was estimated at $6,800 CAD ($5,130 USD), resulting in an approximate savings per pole of $6,050 CAD ($4,560 USD). The labor costs generated by the fast UPR repairs were substantially lower than for the more time-consuming installation of new poles. Additional savings were realized with the elimination of the costs transporting new poles to the remote area. For a detailed overview of the pole damage, UPR-NF use case, ambient working conditions, and a cost comparison of repair versus replacement, please see page 2.

Need assistance finding the right solution for your project?
CONTACT US at +1-651-430-2270 or support@polywater.com

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Solution Stories

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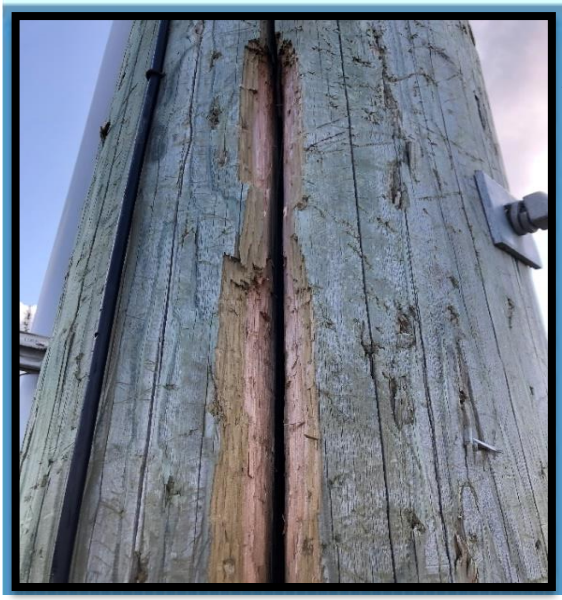

Close up of cracks

Full view of repaired pole

COST DATA ($CAD)	DATA	NOTES
Total Costs:	**Replace: ~$452,880 vs. Repair: $45,480**	Product + Transportation
Pole Replacement Cost: (Class 1, 60')	~$6804/pole	Pole cost, non-delivered
Transportation costs:	Poles: ~$44,640 vs. UPR Kits: $0	UPR freight paid by suppliers
Repair Cost:	~$758/pole	Avg. per pole
SITE DATA		
Pole diameter(s):	10" – 24" (25 cm – 61 cm)	Class 1
Damage information:		
Crack Heights	1' – 8' (61 cm – 244 cm)	9 – 10 cartridges/deep cracks
Crack Widths	2" – 4" (5 cm – 10 cm)	
Crack Depths	3" – 12" (8 cm – 30 cm)	1 – 3 cartridges/shallow cracks
Cavity information:		
Diameter	3" – 4" (8 cm – 10 cm)	
Depth	6" – 12" (15 cm – 30 cm)	
Ambient temperature:	Average of 59° F / 15° C	
Technician access:	Climb	
Application information:	Special instructions – Due to size of cracks and cavities, manufacturer recommended slow injection of UPR-NF resin deep into apex of crack to create first bead of sealant. Let expand and cure. Run two beads of resin along each side of the 1st bead. Wrap pole to contain sealant. Remove plastic after cure.	

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