

Epoxy Resin Used to Rehab Large Corroded Pipes at WWTP
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Problem: The San José-Santa Clara Regional Wastewater Facility had 1,800+ feet of massive 120- and 102-inch-diameter pipes with severe crown corrosion. Several areas had extensive concrete spalling with exposed rebar. An assessment estimated the remaining service life of the pipe between 0 and 12 years. A high priority was given to coating the pipes to lengthen their lifespan.

Solution: As part of the WTP Yard Piping Improvements Phase 2 project, Michels Pipeline patched badly deteriorated spots with cementitious geopolymer material, followed by coating the pipes with Neopoxy high-strength corrosion-resistant NPR-5303 Epoxy Resin. The project owner decided to line only the top 200 degrees of the pipe due to the more serious corrosion in that area. The Michels crew applied epoxy at a thickness of 150-250 mils using plural component spray equipment.

Result: The project was completed successfully. The coating successfully passed spark and pull testing. Several of the pull test results were over 1,500 psi (project specs required 250 psi minimum), with a clean concrete break rather than a separation of the coating and substrate. The pipes were back in service within a few days. Through the application of the Neopoxy NPR-5303, the lifespan of the large-diameter pipe was extended by approximately 50 years. 510-782-1290; www.neopoxy.com

Link: <https://www.mswmag.com/editorial/2025/01/case-studies-water-and-wastewater-system-rehabilitation>

