

CENTRAL REGIONAL WASTEWATER PUMP STATION

With over 1,300 linear ft. of various-sized steel pipe needing to be lined, the Central Regional Wastewater System, and the pipe fabricator involved, decided to apply an innovative ceramic epoxy lining from Tnemec.

“The area and its wastewater facilities have a history of specifying a different lining system,” said Rick Penner of Midwest Coating Consultants, Inc. “But Series 431 Perma-Shield PL offered them equal or better performance, and was easier to apply, so they chose the Tnemec system.” Tnemec’s Series 431 Perma-Shield PL is a coal-tar free, modified polyamine ceramic epoxy with low pigment volume concentration (PVC) and 100% solids formulation for maximum performance. When tested using rapid evaluation of coatings and linings - the Severe Wastewater Analysis Test, or S.W.A.T. - Series 431 remained in the “excellent” range after 28 days exposure.

The pipe was manufactured and coated in Scammon, KS before being shipped to Dallas. Representatives from the corresponding states worked together to lead towards a quality end result. “John Barry from The Barry Group, LLC in Texas worked very hard with the engineer to make sure they had a quality specification,” said Penner. “I worked with the applicator to ensure surface preparation and application went smoothly. Mid America Pipe already has excellent internal quality standards, so they were very accommodating with our recommendations.”

The interior of all pipes were prepared according to SSPC-SP5/ NACE 1 White Metal Blast Cleaning with a minimum 3 mil profile. With majority of the pipe being as large as it was, the applicator stood inside the pipe to spray-apply Series 431 at 40-50 mils dry film thickness (DFT). The lining was applied to the smaller steel pipe with a rotary spray gun, using the same plural component equipment as the other pieces.

“The owner enjoyed the lining enough that they approved using Series 431 for another project connected to the wastewater plant,” explained Penner. “And all parties involved that have seen the lining after application, in the shop and in the field, were truly impressed with look and consistency of the end result.”

The Central Regional Wastewater System serves twenty-one contracting parties and approx. 1.2 million people in the Dallas/Fort Worth area. It is capable of providing complete treatment for monthly average flows of 162 million gallons per day while removing 99 percent of conventional pollutants from raw wastewater.

FEATURED PRODUCTS

Series 431 Perma-Shield PL



PROJECT INFORMATION

Project Location

Dallas, Texas

Project Completion Date

August 2013

Owner

Trinity River Authority
Dallas, Texas

Engineer

Freese and Nichols
Dallas, Texas

Applicator

Mid America Pipe
Scammon, Kansas

Mid America Pipe of Scammon, KS applied Series 431 Perma-Shield PL to 1,300 linear feet of steel pipe for an influent pump station in Dallas, TX.

