

TISA SEWER SYSTEM RENOVATION

In 2012, Trenton Indian Service Area (TISA), used Tnemec Perma-Shield products to line concrete surfaces in its lift station. When they started to notice issues with their piping and the existing coatings on them, their engineer, Indian Health Service, asked Tnemec coating consultants what they would recommend. They were introduced to Tnemec's Series 431 Perma-Shield PL, a modified polyamine epoxy lining formulated especially for severe wastewater environments.

"The engineer was noticing too many failures in their facility's field-applied coatings on pipes, especially in headspace," recalled Kevin Renslow of Coating Resources, Inc.

Instead of blasting and repainting all failing pipe in question, an agreement was struck to install Series 431-coated pipes. Because this particular coating is shop-applied, delivered to the jobsite as a finished good, and has a long above-ground storage time, it helps to limit field-related mistakes. Series 431 is also formulated to resist the effects of H₂S gas, which is a major concern in headspace environments and one of the factors causing issues in this location.

The coating system was shop-applied by the fabricator, ElectroSteel USA. The interior and exterior of the ductile iron pipe was prepared in accordance with NAPF 500-03-04: Abrasive Blast Cleaning of Ductile Iron Pipe and associated fittings received surface preparation according to NAPF 500-03-05: Abrasive Blast Cleaning of Cast Ductile Iron Fittings. After preparation, Series 431 was spray-applied using plural component (PC) equipment at 30-40 mils DFT.

The pipes and fittings were delivered to the jobsite and installed by May 2013. "The engineer and owner intend to use Series 431 on all lift stations from now on," commented Renslow. "Series 431 helps the municipality by limiting costly failures related to field-application on piping in this kind of exposure."

FEATURED PRODUCTS

Series 431 Perma-Shield PL



PROJECT INFORMATION

Project Location

Trenton, North Dakota

Project Completion Date

May 2013

Owner

Trenton Indian Service Area (TISA) - Trenton, North Dakota

Field Applicator

Indian Health Service - Minot, North Dakota

Shop Applicator

ElectroSteel USA

New piping was delivered to the Trenton Indian Service Area lift station already lined and coated with Tnemec's Series 431 Perma-Shield PL.

