

LITTLE RIVER WATER POLLUTION CONTROL CENTER

When Columbia County, Georgia, needed to expand their water pollution control plant in Evans, they wanted to ensure their new infrastructure was protected from the corrosive elements found in domestic wastewater systems. One of the main areas of concern – close to 10,000 linear feet of new ductile iron pipe – needed to be lined with a durable epoxy coating that could withstand wastewater gases and regular maintenance using high-pressure jet cleaning.

“The engineer did not want to use the typical coal tar epoxy lining they had used in the past,” recalled Dean Drehoff, Tnemec coating consultant. “We had recently introduced them to our high-performance technology, Series 431 Perma-Shield PL, which has the abrasion resistance to withstand sewer jetting up to 2,500 psi with a zero-degree tip.”

Series 431 is a 100% solids, high-build modified epoxy liner developed for the unique needs of steel and ductile iron pipe and fittings. Its abrasion resistance and its “Sewer Pipe Green” color make it ideal for sewer pipe and the intense maintenance required of wastewater systems.

The engineer for the project, Kenny Green, with G Ben Turnipseed Engineers, supported the use of Series 431 based on its performance characteristics, its ability to be jet-cleaned, and the surface preparation required.

“We’ve used Tnemec products as our standard coating for water and wastewater projects for years,” said Green. “When we specified Series 431, we were met with some resistance, but we gave a reasonable rebuttal to the fabricator and they decided to apply it.”

The pipe used in the expansion was fabricated by C & B Pipe and shipped to Vulcan Painters in Bessemer, Alabama, to be lined. The interior 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. Using a plural-component pump equipped with a rotary sprayer, the painters applied one coat of Series 431 at 30-40 mils dry film thickness (DFT).

“The finished product looks great and we like its green color. The lining makes it easy to identify if the right pipe or fitting has been installed,” commented Green.

Once completed, this expansion will double the capacity of the plant, growing from six million gallons-a-day to 12 million. This change was implemented to accommodate a growth in population; Columbia County, Georgia, is one of the most rapidly growing parts of the country.

FEATURED PRODUCTS

Series 431 Perma-Shield PL



PROJECT INFORMATION

Project Location

Evans, Georgia

Project Completion Date

Ongoing

Owner

Columbia County - Evans, Georgia

Engineer

G Ben Turnipseed Engineers - Augusta, Georgia

Shop Applicator

Vulcan Painters, Inc. - Bessemer, Alabama

Tnemec’s 100% solids epoxy sewer pipe lining, Series 431 Perma-Shield PL, was specified in Evans, Georgia, because of its advanced performance characteristics and its ability to withstand high-pressure jet cleaning.

