



WEST SHORE REGIONAL WATER TREATMENT PLANT

FEATURED PRODUCTS

Series 130 Envirofill
275 StranlokSeries

Series 201 EpoxoprimeSeries
282 Tneme-Glaze

218 MortarCladSeries
Series N69F Hi-Build

West Shore Regional Water Treatment Plant was designed to raise the bar on operational excellence with state-of-the-art technology that included an epoxy lining system from Tnemec that protects secondary containment walls from chemical attack. "This was a new plant, which has several rooms containing tanks for storing chemicals such as chlorine," according to Tnemec coating consultant Lee Zeigler. "The engineer in charge of the project needed a chemical-resistant coating to protect the concrete containment around these tanks from accidental leaks or spills."

The project required a combination of novolac epoxies used for protecting concrete against acids, alkalis and other aggressive chemical solutions. After dry-abrasive blast cleaning in accordance with SSPC-SP13/NACE No. 6, ICRI-CSP5, the concrete was leveled with Series 218 MortarClad, an epoxy-modified cementitious resurfacer, which was trowel-applied at 1/16" thickness. The epoxy-polymer modification allows MortarClad to be applied as an overlay material, while increasing its density to make the mortar less susceptible to outgassing when topcoated.

The applicator then primed with Series 201 Epoxoprime, a 100% solids penetrating polyamine epoxy, followed by a spray-applied coat of Series 275 Stranlok, a 100 percent solids fiberglass-reinforced novolac epoxy. A topcoat of Series 282 Tneme-Glaze, a chemical-resistant glaze coating for additional protection, completed the lining system. "Both Stranlok and Tneme-Glaze are novolac epoxies, which means they are very chemical resistant," Zeigler noted.

Interior concrete masonry unit (CMU) surfaces at the plant were cleaned in accordance with SSPC-SP13/NACE No. 6 and filled with Series 130 Envirofill, a waterborne cementitious acrylic, followed by two coats of Series N69F Hi-Build Epoxoline II, a polyamidoamine epoxy. Concrete block was also filled with Series 130 Envirofill, followed by a coat of Hi-Build Epoxoline II.

"Gannett Fleming has been specifying Tnemec coatings for years," Zeigler added. "They are familiar with the performance characteristics of these coating systems, which have performed well in numerous water treatment projects in Pennsylvania."

The West Shore Regional Water Treatment Facility was completed in the spring of 2006. The \$36 million state-of-the-art facility is capable of producing 12 million gallons of water a day (MGD). The plant features a Supervisory Control And Data Acquisition (SCADA) system, which allows plant operators to monitor information on plant operations and control them from a centralized location, including chemical feed systems and water quality.

PROJECT INFORMATION

Project Location

New Cumberland, Pennsylvania

Project Completion Date

June 2006

Owner

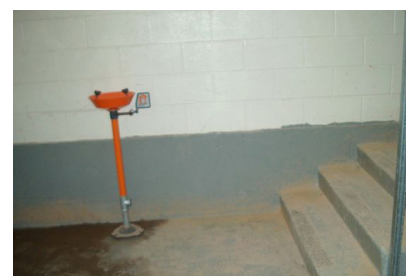
Pennsylvania American Water

Engineer

Gannett Fleming
Camp Hill, Pennsylvania

Applicator

Thomas Burleigh Painting
Horsham, Pennsylvania



Series 275 Stranlok, a fiberglass-reinforced novolac epoxy, protects the concrete at the West Shore Regional Water Treatment Plant from acids, alkalis and other aggressive chemical solutions.