PROJECT PROFILE

Featured Products

Series 201 Epoxoprime
Series 218 MortarClad
Series 239SC ChemTread
Series 282 Tneme-Glaze

A fiberglass-reinforced coating system from Tnemec protects the secondary containment areas at the Salisbury WWTP from harsh chemicals, thermal cycling, impact and abrasion.

Salisbury Wastewater Treatment Plant Secondary Containment

At the city of Salisbury's wastewater treatment plant, three new concrete containment areas are protected against harsh chemicals, thermal cycling, impact and abrasion by a fiberglass-reinforced coating system from Tnemec. "Exposure at the plant was such that a high-performance epoxy coating system was required," according to Tnemec coating consultant Todd Guntner. "The coating system had to resist very corrosive chemicals that would be released in the case of a spill."

Secondary containment systems are barriers designed to contain leaks or spills from storage containers. "Each concrete unit measures approximately 40 feet by 40 feet with three-foot high curbing that creates a basin," Guntner explained. "In the event the storage tanks were to spill, the secondary containment has enough volume to contain all its contents."

The Salisbury secondary containment project required the concrete substrate to be dry-abrasive blast cleaned in accordance with SSPC-SP13/NACE No. 6, ICRI-CSP5. Bugholes were patched with Series 218 MortarClad, a modified epoxy cementitious resurfacer, and a prime coat of Series 201 Epoxoprime, a two-component polyamine epoxy, was applied. Next, a basecoat of Series 239SC ChemTread was trowel-applied at 60-80 mils to create a smooth, even finish. Series 239SC ChemTread is a highly chemical-resistant, multi-purpose resin formulated for use in secondary containment systems. The novolac polyamine epoxy can be applied as a primer or resin-only basecoat, as a mortar/slurry basecoat or with a 3/4-ounce, chopped strand fiberglass mat reinforcement. While the basecoat was still wet, the fiberglass mat was laid into the surface and saturated with additional ChemTread until the mat was wet out and translucent. "After the initial coat had cured, additional coats were added until the desired thickness was achieved," Guntner explained.

A final topcoat of Series 282 Tneme-Glaze, a chemical- and solvent-resistant novolac epoxy glaze coat, was roller-applied to provide the concrete with additional protection against abrasion, impact and most acids, alkalis and solvents.

The new containment units were part of a multi-million dollar expansion designed to upgrade the Salisbury wastewater treatment plant's capacity to 8.5 million gallons per day.

Project Name
Salisbury Wastewater Treatment Plant Secondary Containment

Project Location
Salisbury, MD

Project Completion Date
May 2007

Owner
Salisbury Department of Public Works

Engineer
O'Brien & Gere, Landover, MD

Field Applicator
Professional Maintenance, Baltimore, MD