

PROJECT PROFILE

Featured Products

Series 218 MortarClad
Series 219 MortarCast

Series 434 Perma-Shield H₂S
Series 435 Perma-Glaze



Tnemec coatings protect 42,000 sq.ft. of concrete at the East End Wastewater Treatment Facility in Portland, ME.

East End Wastewater Treatment Facility

In April 2000, the Portland, ME City Council responded to citizen complaints by voting to approve a \$5.3 million odor control project at the East End Treatment Facility. Serving the city of Portland, the facility was constructed in 1976 as a secondary treatment plant.

The Portland Water District (PWD) retained the engineering firm of Wright-Pierce to provide a preliminary design for the East End Facility project, which included the entire headworks, 3 distribution tunnels, 3 primary sedimentation tanks, 2 sludge thickener tanks and all distribution channels.

Because the facility's daily volume of 20 million plus gallons demanded the capacity of at least two primary sedimentation tanks, the applicator began work on the first of three tanks in September 2001. The crew sandblasted and power washed the tank, all tunnels under the building and the more than 700 feet of open air concrete channels. After determining that only a minimal amount of the expansive concrete surface needed repair, the cracks, "holidays" and all deep holes were patched with Series 218 MortarClad and Series 219 MortarCast, both epoxy modified cementitious resurfacing.

Series 434 Perma-Shield H₂S, a modified polyamine epoxy, was then spray applied and immediately troweled to a smooth finish. The product was designed specifically for aggressive wastewater conditions and delivers excellent chemical resistance along with providing long-lasting protection in hydrogen sulfide gas and sulfuric acid solutions. This made it a perfect choice for areas that could experience higher corrosion rates once the odor control domes were installed. Series 435 Perma-Glaze, a modified polyamine epoxy liner, was used to repair the areas where spark testing had taken place.

Tnemec's Perma-Shield coating system provides corrosion protection for the 42,000 sq.ft. of concrete, all of which is now covered by aluminum covers.

Project Name
East End Wastewater Treatment
Facility

Project Location
Portland, ME

Project Completion Date
August 2002

Owner
City of Portland, ME

Engineer
Wright-Pierce, Topsham, ME

Applicator
Blue Finn Painting, Auburn, ME