

DETROIT WASTEWATER TREATMENT PLANT

Continuous facility improvements and upgrades are a must for wastewater treatment facilities across the country in order to keep up with ever-growing demands and environmental standards. The Detroit Wastewater Treatment Plant (WWTP) has a long history of facility upgrades dating back to when the plant first began service in 1940. Today, the Detroit WWTP is the largest single-site wastewater treatment facility in the United States, currently serving more than 3 million people in 76 communities within the state of Michigan.

Tnemec coating systems were specified for the facility's secondary containment renovation in 2001. Following abrasive blasting in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning, Series 66 Hi-Build Epoxoline, a polyamide epoxy, was brush- and roller-applied to the new steel surface, followed by a topcoat of Series 73 Endura-Shield, a semi-gloss polyurethane with high resistance to abrasion, wet conditions and corrosive environments.

Following abrasive blasting in accordance with SSPC-SP13/NACE No. 6, the secondary containment concrete received a coat of Series 66. Next, a topcoat of Series 262 Elasto-Shield, an abrasion and chemical-resistant polyurethane elastomer, was applied at 50-60 mils dry film thickness (DFT) to provide exceptional strength and flexibility. Series 260 Tneme-Bond, a chemically-active solution used to promote adhesion, was used in specific areas to cover the recoat window of Series 262.

"The owner really liked the elasticity of Series 262," said Tnemec coating consultant Ken Hartwig. "The applicator brought the Elasto-Shield up onto the flange of the tank of the continual liner, so if the tank spilled, it would be contained inside of the lined dike."

Following surface preparation in accordance with SSPC-SP2 and -SP3, the steel railings were primed with Series 135 Chembuild, a modified polyamidoamine epoxy, followed by an intermediate coat of Series 66 and a topcoat of Series 73.

"It was a nice project," noted Hartwig. "The coating systems handled the commodity and took care of the flexibility, just as they are designed to do."

FEATURED PRODUCTS

- Series 135 Chembuild
- Series 260 Tneme-Bond
- Series 262 Elasto-Shield
- Series 73 Endura-Shield
- Series 66 Hi-Build Epoxoline



PROJECT INFORMATION



Project Location
Detroit, Michigan

Project Completion Date
August 2001

Owner
City of Detroit

Engineer
City of Detroit

Applicator
Eugenio Painting
Grosse Pointe Wood, Michigan

Tnemec high-performance coatings protect steel and concrete surfaces within the secondary containment area at the Detroit, Mich., Wastewater Treatment Plant.

