

# DERBY WATER TANKS

Located in the southeast Wichita metropolitan area, the city of Derby, Kansas is certainly no sleeper community. Derby was named a "Top 10 Town for Families" by Family Circle Magazine and rated as a "Best Place to Retire" by U.S. News & World Report in 2007. When the time came to construct a new water tank for the city, the budding community decided that their two existing water tanks could also use a coatings upgrade, and Tnemec was specified for the jobs.

The interior steel of the new hydropillar and the two existing water tanks (a hydropillar and multi-leg water tank) were prepared in accordance with SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaning, then primed with Series 91-H<sub>2</sub>O Hydro-Zinc, a moisture-cured, urethane zinc-rich primer. Two coats of Series 20 Pota-Pox, a polyamide epoxy, were spray-applied completing the interior coating system.

The exterior steel of the newly constructed hydropillar was prepared in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning, followed by a prime coat of 91-H<sub>2</sub>O Hydro-Zinc. An intermediate coat of Series 66 Hi-Build Epoxoline, a polyamide epoxy, was then applied, along with a finish coat of Series 1075 Endura-Shield II, an aliphatic acrylic polyurethane.

The exterior of Derby's existing hydropillar specified an overcoat to the existing coating system. Surface preparation included a high pressure water cleaning followed by SSPC-SP3 Power Tool Cleaning. Series 135 Chembuild, a modified polyamidoamine epoxy, was used to spot prime all of the bare steel surfaces, followed by a topcoat of Series 1075 Endura-Shield II.

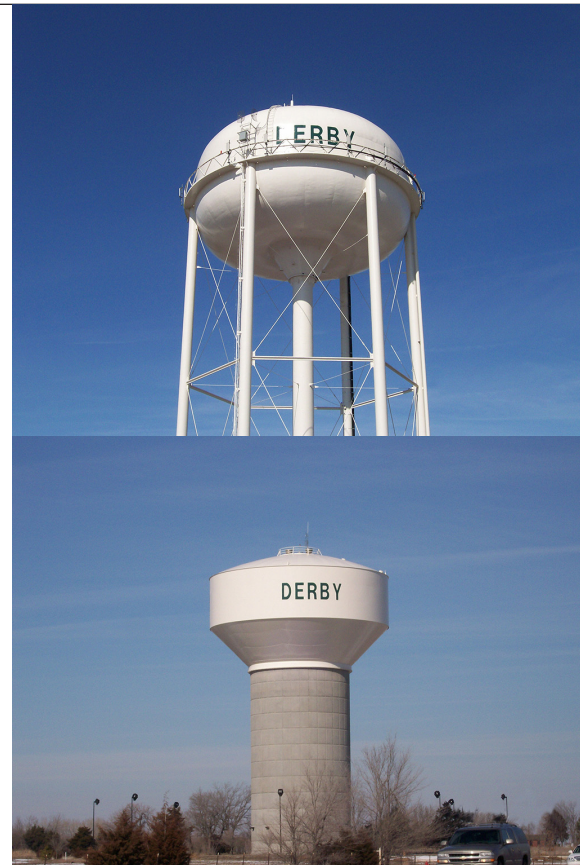
Series 1075 was also used for the exterior lettering on the new and existing hydropillars. The lettering was topcoated with Series 76 Endura-Clear, an aliphatic polyurethane clearcoat.

Tnemec coating consultant Rick Penner noted that due to the location and multi-leg style of the third water tank, a Tnemec Tri-Fall coating system was specified for its exterior. The Tri-Fall system – specifically designed for coating water tanks – includes a primer, intermediate and topcoat that all utilize dryfall technology, thereby negating the concern for overspray and providing protection for the ground below.

Following removal of the existing coating and surface preparation in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning, a prime coat of Series 91-H<sub>2</sub>O Hydro-Zinc was spray-applied. Series 25 HydroLink, a one-coat hydrophobic acrylic, was then spray-applied, followed by a finish coat of Series 35 HydroPlate, a one-component hydrophobic acrylic. Lettering on the tank's exterior specified Series 73 Endura-Shield, an acrylic polyurethane, along with a clearcoat of Series 76 Endura-Clear.

## FEATURED PRODUCTS

Series 20 Pota-Pox	Series 91-H <sub>2</sub> O Hydro-Zinc
Series 73 Endura-Shield	Series 35 HydroPlate
Series 66 Hi-Build Epoxoline	Series 135 Chembuild
Series 25 HydroLink	Series 1075 Endura-Shield II
Series 76 Endura-Clear	



## PROJECT INFORMATION

### Project Location

Derby, Kansas

### Project Completion Date

September 2005

### Owner

City of Derby

### Engineer

Professional Engineering Consultants  
Wichita, Kansas

### Shop Applicator

Chicago Bridge & Iron  
Clive, Iowa

### Field Applicator

Gulf States Protective Coating Inc.  
La Porte, Texas

Three water tanks in Derby, Kansas, received various Tnemec protective coatings on their exterior and interior surfaces.

