

WESTERN KENTUCKY UNIVERSITY WATER TANK

Towering over the Western Kentucky University (WKU) campus and stadium in Bowling Green is a 2.5-million-gallon composite water tank sporting a detailed likeness of the school's colorful "Big Red" mascot and other artwork applied with a long-lasting coating system from Tnemec. "Color and gloss retention were critical due to the extensive use of graphics and the color red," Tnemec coating consultant Mike Barnhill recalled. "The graphics were an added expense, so they wanted to make sure the coatings would last as long as possible."

The composite style uses reinforced concrete for the support pedestal and welded steel for a watertight storage tank. Fabricated by Caldwell Tanks in 2004, the \$1,662,000 project required more than 460 tons of steel plate, 1,088 cubic yards of concrete and 750 gallons of interior and exterior coatings to complete. The fabricator prepared the tank's interior steel surfaces in accordance with SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaning. Exterior steel was prepared in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning. The fabricator also spray-applied a prime coat of Series 20 Pota-Pox, a polyamide epoxy, on both interior and exterior steel. Following assembly, interior steel received a second coat of Series 20 Pota-Pox, which is certified by NSF International in accordance with ANSI/NSF Standard 61 that addresses crucial aspects of drinking water system components.

For exterior steel, a coat of Series 66 Hi-Build Epoxoline, a polyamide epoxy, was roller-applied, followed by a coat of Series 1074 Endura-Shield II, an aliphatic acrylic polyurethane. A finish clear coat of Series 76 Endura-Clear, also an aliphatic acrylic polyurethane, was roller-applied to enhance the finish and extend the long-term weathering qualities of the pigmented Series 1074.

"You can see the tank from almost anywhere on the WKU campus," Barnhill added. "After the tank was finished, the whole student body was talking about it. And six years later, it still looks fantastic."

Tnemec coatings have also been specified on other water tanks in Bowling Green, including a 1-million-gallon red, white, and blue storage tank that was constructed in 1970. Constructed high on a hill, the elevated tank serves as a patriotic landmark for the City of Bowling Green.

FEATURED PRODUCTS

- Series 20 Pota-Pox
- Series 66 Hi-Build Epoxoline
- Series 76 Endura-Clear
- Series 1074 Endura-Shield II



PROJECT INFORMATION

Project Location

Bowling Green, Kentucky

Project Completion Date

November 2004

Owner

Bowling Green Municipal Utilities
Bowling Green, Kentucky

Engineer

Allen & Hushell
Nashville, Tennessee

Shop Applicator

Caldwell Tanks
Louisville, Kentucky

Field Applicator

Currens Painting
Harrodsburg, Kentucky

The composite water tank on the Western Kentucky University campus features a coating system from Tnemec that will extend its long-term weathering properties.

