

CLARKSON WWTP DIGESTER

Located in the Region of Peel, the Clarkson Wastewater Treatment Facility serves the municipalities of Mississauga, Brampton and Caledon in Ontario, Canada. In 1999, Clarkson underwent a facility-wide expansion to include two new digester tanks and a sludge blending tank, an aeration tank and final tank, a biosolids complex, a new headworks facility and a plant storage facility.

Among other areas of new construction within the Clarkson facility, Tnemec coating systems were specified for the interior and exterior steel of the digester lid. The exterior surface was first prepared in accordance with SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaning. Next, two coats of Series FC20 Pota-Pox FC, a high-performance polyamide epoxy coating known for its forgiving application characteristics and benchmark performance, were brush- and roller-applied, followed by a topcoat of Series 1075 Endura-Shield II, an aliphatic acrylic polyurethane highly resistant to abrasion, wet conditions, corrosive fumes and weathering.

Specified for the interior of the steel digester lid were Series 1 Omnithane and Series 406 Elasto-Shield. Series 1 is a single component, moisture-cured, MIO-zinc urethane primer that offers an extremely fast recoat time. "Series 1 is unlike a lot of primers," noted Tnemec coating consultant David Walker. "Not only does it offer a fast recoat window, but it also stays open to subsequent topcoats, unlike traditional primer technologies. Most primers allow 24 to 72 hours before the area must be topcoated, and if not, the area will have to be prepared again, which is costly. Series 1, however, allows for extended periods between primer and topcoat application."

The interior steel was prepared in accordance with SSPC-SP5/NACE 1 White Metal Blast Cleaning, then received a spray-applied coat of Omnithane. Series 406 Elasto-Shield, a fast-curing polyurethane, was then spray-applied at a minimum of 100.0 mils DFT with heated plural component equipment to finish the interior. A two-component, monolithic coating designed to provide a durable lining in a single coat application, Series 406 has excellent chemical, thermal shock and abrasion resistance and is ideal for application to steel or concrete in water and wastewater treatment facilities.

FEATURED PRODUCTS

Series 1 Omnithane	Series 83 Ceramlon II
Series FC20 Pota-Pox FC	Series 151 Elasto-Grip
Series 54-660 Masonry Filler	Series 158 Bio-Lastic
Series 66 Hi-Build Epoxoline	Series 406 Elasto-Shield
Series 69 Hi-Build Epoxoline II	Series 1075 Endura-Shield II
Series 74 Endura-Shield	



PROJECT INFORMATION

Project Location

Mississauga, Ontario, Canada

Project Completion Date

December 2005

Owner

Region of Peel

Architect / Engineer

Earth Tech (Canada) Inc. - Markham, Ontario

Applicator

Algoma Contractors, Inc. - Stoney Creek, Ontario

Fabricator

GL&V / Dorr-Oliver Canada Inc. - Orillia, Ontario

Tnemec coating systems were specified to protect both the interior and exterior of the digester lid at the Clarkson Wastewater Treatment Plant Digester Expansion project in Mississauga, Ontario.

