

MIAMI-DADE METHANE SPHERES

Coating the methane gas holding spheres at the South District Wastewater Facility posed a challenge for the Miami-Dade Water and Sewer Department. A blower building – housing expensive equipment and located directly behind the tanks – could not be shut down during preparation or coating applications, so preparing the tanks with abrasive blast cleaning was not an option. Plus, the additional cost of blasting the tanks would present a problem with the project budget.

Blake Holmes, Tnemec representative with Florida Protective Coatings Consultants, Inc., was able to recommend a high-performance coatings system to meet the unique circumstances of this demanding coastal project.

“The tanks’ existing coatings were aged and unidentified, so we began with test patches six months in advance to confirm compatibility and proper adhesion of our coatings system,” stated Holmes. “The test patches included multiple products from numerous manufacturers.”

Due to the condition of the existing coatings on the tanks and the surface preparation limitations, Holmes recommended a coating system featuring Series 118 Uni-Bond Mastic. Series 118 is a high-build, rust-inhibitive, elastomeric coating formulated for exceptional adhesion and corrosion resistance over minimally prepared aged coating systems. This product also exhibits dry-fall characteristics, reducing the potential for overspray issues on surrounding vehicles, buildings and equipment.

The tanks were prepared by high-pressure water cleaning at a minimum of 5,000 psi, utilizing a 0-degree oscillating tip to remove all loose coatings and loose rust. Series 118 was used to spot-prime certain areas and followed by a full coat, spray-applied at 6.0-9.0 mils dry film thickness (DFT).

Handrails received a primer of Series 135 Chembuild, a high-build coating with superior wetting for marginally prepared rusty steel and tightly adhering old coatings. Both the tanks and handrails were topcoated with Series 701 HydroFlon, Tnemec’s premier exterior topcoat offering exceptional long-term color and gloss protection.

The tanks’ concrete bases were coated with Series 1029 Enduratone, a water-based, low VOC, High Dispersion Pure acrylic polymer coating which exhibits very good gloss and color stability.

“This project posed several challenges,” said Holmes, “but because of Tnemec’s extensive line of high-performance coatings we were able to recommend a complete system that met all of Miami-Dade’s needs and requirements.”

By project end, nearly 420 gallons of Tnemec coatings were used, protecting close to 25,000 square feet of steel.

FEATURED PRODUCTS

Series 118 Uni-Bond Mastic
Series 701 HydroFlon
Series 135 Chembuild
Series 1029 Enduratone



PROJECT INFORMATION

Project Location
Cutler Bay, Florida

Project Completion Date
February 2017

Owner
Miami-Dade Water and Sewer
Department
Cutler Bay, Florida

Engineer
Miami-Dade Water and Sewer
Department
Cutler Bay, Florida

Applicator
Cypress Construction & Coatings,
Inc.
Lehigh Acres, Florida

Utilizing Tnemec’s elastomeric acrylic mastic, Series 118 Uni-Bond Mastic, the methane spheres at the South District Wastewater Facility in Cutler Bay, Florida, were transformed without the need for extensive surface preparation.

