

BUNGE GRAIN DUST COLLECTORS

The time and expense required to repaint a steel grain dust collector is nothing to sneeze at, which is why the Bunge Grain facility in Destrehan required a protective coating system with long-term performance in aggressive exposures from Tnemec. "This was a large amount of very difficult to paint steel, many sharp edges, back to back connection points, small bolted connections, hand rails and grating," recalled Tnemec coating consultant Eddie Borne. "To make things worse it had to be coated under difficult circumstances – while the plant was running. The main reason they asked us to get involved with the project was they felt they were painting things too frequently. Every few years, they were having to repaint their steel assets and they wanted a coating that was going to last."

The steel substrate was commercial blast-cleaned in accordance with SSPC-SP6/NACE 3, then primed with Series 90E-92 Tnemec-Zinc, a two-component, inorganic zinc. The field applicator followed with a spray-applied intermediate coat of Series 66 Hi-Build Epoxoline, a polyamide epoxy, followed by a beige-colored finish coat of Series 70 Endura-Shield, an aliphatic acrylic urethane. Endura-Shield is highly resistant to abrasion, wet conditions, weathering and chemical contact, which was important since grain dust can convert to acetic acid.

After more than 23 years of continuous service, the project was evaluated by Borne and a maintenance engineer, Joel Heading, with Bunge Grain. "The tanks were covered in dust, so we cleaned off several areas to determine the condition of the coating," Borne explained. "The topcoat and color looked very good. It had a lot of film integrity and was still protecting 100 percent of the substrate, which was its primary purpose. There were no signs of rust on any of the bolted connection points or back-to-back angles. It was still in excellent shape."

Borne added, "This is one of the projects we reference in presentations where we discuss the life cycle costs of protective coatings."

With headquarters in St. Louis, Missouri, Bunge North America and its subsidiaries operate grain elevators, oilseed processing plants, edible oil refineries and packaging facilities, and corn dry mills in the U.S., Canada and Mexico. Bunge operates an export elevator and soybean processing facility in Destrehan as part of its network, which includes the U.S. Corn Belt, the Mid-South and the Delta, as well as Quebec City, Canada and Mexico City, Mexico.

FEATURED PRODUCTS

Series 66 Hi-Build Epoxoline

Series 70 Endura-Shield

Series 90E-92 Tnemec-Zinc



PROJECT INFORMATION

Project Location

Destrehan, Louisiana

Project Completion Date

Summer 1984

Owner / Engineer

Bunge Grain Corporation - Destrehan, Louisiana

Field Applicator

Industrial Coatings Contractors - Prairieville, Louisiana

A zinc/epoxy/urethane coating system has been protecting the dust collectors at the Bunge Grain facility in Destrehan, Louisiana since 1984 with no signs of rust.

