

CHAMOIS POWER PLANT

Selecting the right coating systems for the 68-megawatt Chamois Power Plant turned out to be an energetic undertaking for Tnemec coating consultants and the project's painting contractor, Custom Coatings, Inc. Key considerations they were faced with included lead-based paint issues on structures that badly needed recoating, plus a quick return-to-service. "When dealing with coal-fired plants such as this, they shut down the conveyors for you to go in and blast, prep and coat," explained Custom Coatings' Guy Douglass. "You have to be able to come back in and apply the finish coat in good time, or you will be rewashing the surface again."

The Tnemec coating system selected for the job included Series 1 Omnithane, a single component, moisture-cured urethane primer containing micaceous iron oxide and zinc. The structural steel was abrasive-blasted in accordance with SSPC-SP6 Commercial Blast and spray-applied with Omnithane at 2.5 to 3.5 mils DFT. At 70°F, Omnithane can be recoated within four hours after being applied. The coating covered the majority of the project, including the structural steel conveyor, barge conveyor, condensate and fuel tank exteriors, hopper unit, 1 and 2 precipitator steel, grating, ducting, handrails and stacks. The finish coat selected for these areas was one coat of Series 73 Endura-Shield, an aliphatic acrylic polyurethane, applied at 3.0 to 5.0 mils DFT.

The upper steel on the precipitator, considered too sensitive for abrasive blasting, was prepared in accordance with SSPC-SP2 Hand Tool Cleaning and SSPC-SP3 Power Tool Cleaning. Series 136 Chembuild FC, a fast-curing modified polyamidoamine epoxy, was applied at 4.0 to 6.0 mils DFT, followed by a topcoat of Endura-Shield applied at 2.0 to 5.0 mils DFT. Series 30 Spra-Saf EN, a hydrophobic acrylic polymer, was then spray-applied to the precipitator siding and the crusher building. Series 35 HydroPlate, a one-component, self-crosslinking acrylic finish coat, was spray-applied in the transformer yard, eliminating overspray concerns of the urethane coatings.

The 1,000-square-foot flooring in the chemical feed room was mechanically abraded and primed with Series 201 Epoxoprime, a polyamine epoxy, and topcoated with Series 282 Tneme-Glaze, a chemical and solvent-resistant epoxy.

"The relationship developed with the owner was remarkable," noted Mike Cerutti, Tnemec coating consultant. "The project couldn't have gone any smoother."

FEATURED PRODUCTS

Series 1 Omnithane
Series 35 HydroPlate
Series 73 Endura-Shield
Series 30 Spra-Saf EN

Series 136 Chembuild FC
Series 282 Tneme-Glaze
Series 201 Epoxoprime



PROJECT INFORMATION



Project Location
Chamois, Missouri

Project Completion Date
July 2006

Owner
Central Electric Power
Chamois, Missouri

Architect/Engineer
Central Electric Power
Chamois, Missouri

Field Applicator
Custom Coatings, Inc.
St. Charles, Missouri

Series 1 Omnithane, a single component, moisture-cured urethane primer containing micaceous iron oxide and zinc, was chosen as the primer for the structural steel at the Chamois Power Plant because it can be recoated within four hours after being applied.

