ST. AUGUSTINE LIGHTHOUSE RENOVATION

Standing 165 feet above the nation's oldest port, Florida's iconic St. Augustine Lighthouse welcomes visitors every day who climb up the 219 steps to the tower's refurbished observation deck and lantern coated with a bright red fluoropolymer coating system from Tnemec.

"The lighthouse is an historical landmark, which made its renovation a very exciting project," explained Bill Langer of Florida Protective Coatings Consultants, Inc. "The old paint on top of the lighthouse kept fading and was continually being repainted, so the owners wanted a coating system with long-term color and gloss retention."

The four-coat system was applied over the iron and copper observation deck and lantern at the top of the lighthouse. The old paint was removed in accordance with SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaning. Surface preparation of the observation platform and lantern was performed under a tarp to contain sandblasting debris.

"The coating contractor had to go very easy when they prepared the surface because the metal was more than 140 years old. They had to carefully remove the paint without damaging the metal," Langer recalled.

A prime coat of Series 90G-1K97 Tneme-Zinc, single-component zinc-rich aromatic polyurethane, was spray-applied to the metal surfaces, followed by an intermediate coat of Series 66 Hi-Build Epoxoline.

Completing the coatings system was a coat of Series 73 Endura-Shield, an aliphatic acrylic polyurethane that is highly resistant to abrasion and exterior weathering, and a finish coat of Series 1072 Fluoronar, a fluoropolymer coating that provides outstanding color and gloss retention. The fluoropolymer topcoat replicated the observation deck's signature red color.

"The color had to be a very specific red," Langer shared. "Several different shades of red were submitted in order to find a match. The color they chose was Safety Red."

The $280,000 restoration project included the removal of rust and mold that had formed on the lighthouse tower since its last major refurbishment in the 1980s.

The project's architect, Kenneth Smith Architects in Jacksonville, had specified a similar protective coating system for the 104-foot tall St. Simons Island Lighthouse in Georgia, which was constructed in 1872.

Built in 1871, the St. Augustine Lighthouse is equipped with its original Fresnel lens measuring nine feet tall and constructed of 370 handmade prisms. The lighthouse is owned by the non-profit St. Augustine Lighthouse & Museum which provides summer camps, home-school days, hands-on tours and maritime archaeology studies of shipwrecks off the coast of St. Augustine. The lighthouse was added to the National Register of Historic Places in 1981.

FEATURED PRODUCTS

Series 66 Hi-Build Epoxoline
Series 73 Endura-Shield
Series 90G-1K97 Tneme-Zinc
Series 1072 Fluoronar

PROJECT INFORMATION

Project Location
St. Augustine, Florida

Project Completion Date
May 2015

Owner
St. Augustine Lighthouse and Museum, Inc.

Architect
Kenneth Smith Architects
Jacksonville, Florida

Contractor/Applicator
Razorback

A staple of the Eastern Florida coastline since 1871, the St. Augustine Lighthouse is now protected against corrosion and UV light degredation with a Tnemec coating system utilizing Series 1072 Fluoronar.

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