

CHARLEVOIX SOUTH PIER LIGHTHOUSE RENOVATION

The historically correct red paint on the newly renovated South Pier Lighthouse in Charlevoix, Michigan, had become a fading memory for the local community, so the owner launched a search that led to a fluoropolymer coating system with long-lasting color and gloss retention from Tnemec.

“The existing urethane coating went from a bright, candy apple red type color to a light pink,” according to coating consultant Anthony Hartwig of North Group, LLC. “People from the area did not want to see this faded eyesore, so they were looking for a coating system that was going to last and perform.”

A careful evaluation of several high-performance coating products by the project’s architect who specializes in lighthouse rehabilitation resulted in the selection of the coating system from Tnemec.

“For the evaluation, we provided the architect with performance data on all of our products and conducted an overcoat analysis because the surface of the lighthouse had been painted several times,” Hartwig explained. “The adhesion testing involved X-Cut and Cross-Hatch adhesion testing that found the surface condition of the lighthouse suitable for overcoating.”

Hartwig also referred the architect to a water tank in Peck, Michigan, where a similar red fluoropolymer coating system had been applied several years earlier.

“The fluoropolymer coating system on the water tank had been exposed to our northern Michigan weather conditions for several years without fading,” Hart emphasized. “The architect was able to visit the water tank and see first-hand what kind of performance the coating system provided after exposure to the snow, high winds and freeze-thaw cycles.”

Surface preparation of the exterior steel consisted of power washing by the coating contractor who was experienced in the restoration and painting of Michigan lighthouses. A coat of Series 66 Hi-Build Epoxoline, a polyamide epoxy, was brush and roller-applied, followed by a coat of Series 1075 Endura-Shield II, an aliphatic acrylic polyurethane that is highly resistant to abrasion and exterior weathering. A finish coat of Series 1070 Fluoronar, a fluoropolymer coating with outstanding color and gloss retention, completed the coating system.

“The finish color was Federal Standard Red, which matched the color they wanted,” Hartwig recalled. “It’s a very bright, in-your-face, high-visibility red. The application went well and the architect and contractor were happy with the project.”

Built in 1948, the Charlevoix South Pier Lighthouse was added to the National Register of Historic Places in 2005. The square pyramid steel tower has a decagonal lantern that houses a 12-inch lens, which is operated by the U.S. Coast Guard.

FEATURED PRODUCTS

- Series 66 Hi-Build Epoxoline
- Series 1070 Fluoronar
- Series 1075 Endura-Shield II



PROJECT INFORMATION

Project Location
Charlevoix, Michigan

Project Completion Date
August 2016

Owner
City of Charlevoix &
Charlevoix Historical Society

Architect
Smay Trombley Architecture
Ann Arbor, Michigan

Contractor/Applicator
Mihm Enterprises
Hamilton, Michigan

During the restoration process, owners of the Charlevoix South Pier Lighthouse elected to apply a high-performance, UV resistant coating system from Tnemec Company Inc.

