POST FALLS WASTEWATER TREATMENT PLANT

Nicknamed River City, Post Falls is located 20 miles east of Spokane, Wash. and 100 miles south of the Canadian Border. With a current population of more than 18,000, the city has its own Public Works Department, which serves as the water and wastewater utility system for the residents and businesses of Post Falls.

The city owns one wastewater treatment facility and 22 wastewater pumping stations. With current capacity of 3.4 million gallons of wastewater per day (mgd), the city also provides treatment of the wastewater flow from the nearby city of Rathdrum, Idaho.

Eight years after Post Falls had built a brand new 3.4 mgd headworks system for its treatment plant, biogenic corrosion had eaten away nearly 20 percent of the 8-inch headworks concrete surfaces. Large chunks of concrete were falling off and the aggregate was starting to show.

Alarmed by the severity of the headworks substrate deterioration, Public Works Superintendent Terry Warner contacted Tnemec coating consultant Scott McConnell who specified Tnemec's thick film epoxy mortar system that included Series 218 MortarClad, Series 434 Perma-Shield H_2S and Series 435 Perma-Glaze.

Series 218 is an epoxy modified cementitious resurfacer used to provide a contiguous surface. A modified polyamine epoxy, Series 434 was developed specifically to resist H_2S permeation, abrasion and sulfuric acid. With increased film thickness, 100 percent solids and low VOCs, Perma-Shield H_2S provides rapid return to service for municipal wastewater operators. The system's topcoat, Series 435 Perma-Glaze, is a modified polyamine epoxy that provides additional resistance to gases and solvents found in municipal wastewater streams.

At the 5-year inspection review in early 2008, the contractor reported the owner and engineer were very pleased with the performance of the Perma-Shield system.

FEATURED PRODUCTS

Series 218 MortarClad
Series 434 Perma-Shield H_2S
Series 435 Perma-Glaze

PROJECT INFORMATION

Project Location
Post Falls, Idaho

Project Completion Date
April 2003

Owner
City of Post Falls, Idaho

Construction Supervisor
Public Works Superintendent - City of Post Falls

Design Engineer
Kimball Engineering - Hayden Lake, Idaho

Applicator
Extreme Coatings, Inc. - Pasco, Washington

The influent channel inside the headworks building at the Post Falls WWTP was restored with a Perma-Shield lining system in 2003. After five years in service, the owner is pleased with the performance of the Perma-Shield system.

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