



www.scs-us.com

Neenah Office

693 Yorkshire Dr.
Neenah, WI 54956
(920) 720-9885—Office/Fax
(920) 858-5910—Cell
jim@scs-us.com

Charlotte Office

2904 Treasure Hill Court
Matthews, NC 28105
(704) 847-6435—Office/Fax
(704) 906-2123—Cell
harry@scs-us.com

Atlanta Office

119 Highgreen Ridge
Peachtree City, GA 30269
(770) 487-7846—Office
(404) 234-5301—Cell
(888) 799-5916—Fax
joe@scs-us.com

Problem

A paper mill in the northeast had been experiencing problems in their wastewater treatment facility. The 80' diameter GL&V Dorr-Oliver primary clarifier, in service since 1976, had developed leaks in over 40 known locations.

Upon inspection, the walls and floor of the clarifier showed signs of severe erosion with 3/4" aggregate visible on the surface. The mill decided that the walls of the clarifier and overflow launder ring should be resurfaced or lined to stop the leaks and halt further erosion. An outage was scheduled to conduct repairs to the drive system. A 48 hour accessibility window was available to conduct repairs to the walls and launder ring.

Solution

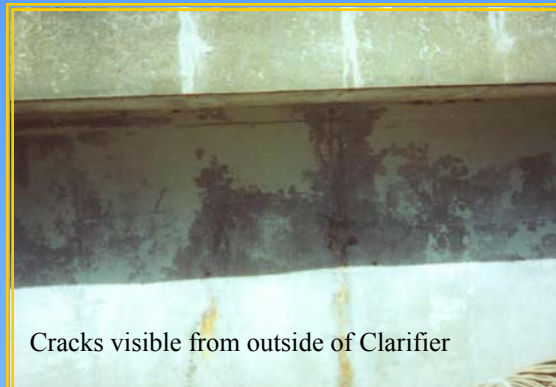
Because time was a factor, most conventional repair options were ruled out. *Specialty Coating Solutions* proposed a system utilizing a spray-applied **100% pure Polyurea** that would cure within minutes of application and has physical properties, including elongation of over 500%, that would enable it to withstand the harsh operating conditions of the clarifier for many years. *SCS* would manage the project and ensure that the preparation and application of the product could be conducted within the allotted time frame.

During the project, the walls and launder ring were abrasive blasted to clean and remove any contaminants, loose aggregate and to achieve an anchor profile for the lining to adhere to. The surfaces were primed and 100 mils of the **Polyurea** were applied. The benefits of this lining over conventional repair materials are:

- ☑ The clarifier can be returned to service immediately after completion of the coating application.
- ☑ The isopolymer lining is flexible (elongation in excess of 500%), allowing it to withstand structural or thermal movement of the substrate without cracking.
- ☑ The spray-applied application makes the liner monolithic. The liner bridges cracks in the concrete and is bonded to the surface. All leaks are stopped and there are no seams to fail in the future.

Results

Specialty Coating Solutions performed quality checks throughout the project. Aside from a few areas requiring touch-up in the coarse aggregate, all quality parameters were met. The project was completed on time, within budget and within the 48 hour window. The clarifier was filled, tested for leaks and the plant started up operations on schedule



Cracks visible from outside of Clarifier



THE CHOICE FOR SCS