

**PROJECT:**  
Deionized Water Tanks

**LOCATION:**  
Magna, Utah

**OWNER:**  
Large Copper Mines

**APPLICATOR:**  
Hydrodynamics, Inc.

**SYSTEM:**  
60-80 mils (1½-2mm)  
**POLYSHIELD SS™ 100 Polyurea**  
Standard Grey Color

**TOTAL AREA:**  
Two tanks, Approximately  
35' H x 25" diameter

**COMPLETION DATE:**  
December 1994

**PROBLEM:**

Mine personnel discovered leaks in two concrete storage tanks. The tanks were originally used to store lime solution and were being converted for deionized boiler water storage. When the tanks were first converted the mine owner lined the floors and walls with an epoxy coating. Subsequently, when the tank was filled with water, leaks were observed. The epoxy had failed and they needed a superior solution.

**SOLUTION:**

The leaks needed to be sealed with a coating that would not crack or peel with the concrete expansion and contraction from the seasonal climate changes. The project owner contacted Hydrodynamics to find a coating solution. Hydrodynamics recommended SPI's Polyshield SS™ 100 polyurea due to the product's water

resistant and elastomeric properties.

The inside of epoxy-coated concrete storage tanks were grit-blasted, followed by epoxy grouting in areas that were cracked. Then Polyshield SS™ 100 polyurea was applied at 60-80 mils (1½-2mm) on the tank floors and walls.

**RESULTS:**

In October 1996, the owner was contacted regarding performance of the tanks. SPI was informed that the Polyshield SS™ 100 polyurea coating was performing well and there were no visible signs of damage.

