Case Study: Kearfott Corporation

The Kearfott Corporation is one of the world's leading guidance system manufacturers. Their components are used to guide and navigate satellites, missiles, submarines, ships, and tanks for countries all over the world. Because of the wide variety of sophisticated equipment they manufacture at their Black Mountain, NC facility, many different chemicals are required.

They have an area in the plant with 13 process tanks that contain many different caustics and acids. It had an acid brick floor and over the years the different chemicals had severely deteriorated the mortar joints. A new flooring system was required that could withstand all the chemicals present and provide an easy to clean and safe walking surface for their employees.

They turned to Certified Contractor **Michael Morrison** with **Advanced American Polymers** to help them find a suitable system. Filled epoxy systems were ruled out because of the presence of Fluorine which attacks silica. ICO Ure Guard SL was immersion tested for chemicals in each of the 13 tanks. The samples were weighed before and after for absorption weight gain in grams and it successfully passed the rigorous testing and was chosen for the project. The total area was 2,500sq/ft and there is a trench that runs the length of the room. The bottom of the trench was completely eaten away along most of it down to the soil.

All the loose and badly cracked bricks and mortar were removed. The acid bricks were then prepped by diamond grinding to provide a clean and open surface for the system to bind to. ICO Primer LV FC was roller applied at about 250 sq/ft per gallon to penetrate the brick and provide an excellent mechanical bond. Next ICO Gel MC was used to fill in and smooth out all the mortar joints. This would then prevent the mortar joints from showing through the coating giving the smooth finish Kearfott desired. Next the ICO Ure Guard Slurry was applied at 3/16" thickness and a topcoat of Ure Guard TL/SL coating was applied.

Kearfott is extremely happy with the finished systems. It is light years ahead of the acid brick in terms of chemical resistance, cleanability and maintenance required.