USI GROUPS

Experts in Composite Repair and Protective Coatings

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Project: Big 10 University Chiller - 2018

The Problem

A Major Big Ten University was experiencing galvanic corrosion, also known as bimetal corrosion, which was eating away at the metals and causing tubes to plug. This Michigan University wanted to lower their energy cost and felt a hydrophobic ceramic enhanced polymer coating would provide a smoother surface and reduce energy bills. Having worked with the USI Team before, they called us in to work on this important project.

The Solution

The USI Team tented the area to create a exhaust/dust free enviornment. Corrosive Materials and Blast Media were put into a dumpster for disposal by the client. The tubes were corked to prevent abrasive blast media from going into the copper tubes. The USI Team first abrasive blasted to NACE 2 specifications, to a 2 1/2 to 4 mil anchor pattern. Next, the USI Team rebuilt lost metal around the tubes with a paste grade ceramic engineering rebuilding product. Lastly, two coats of a ceramic fluide grade material were brush applied by the USI Team to give it a smooth, hydrophobic finish to be more efficient and provide an erosion corrosion free enviornment.