

Power Plant at Big 10 University - 2018



PROBLEM

A Power Plant at a Big 10 University was experiencing galvanic corrosion, also known as bimetal corrosion, which was eating away at the metals and causing tubes to plug. This 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.

SUBSTRATE

Metal

PRODUCTS USED

RESIMETAL 201 Ceramic Repair Paste

RESIMETAL 203 Superflow Ceramic Repair Fluid (2 colors)

SOLUTION

The USI Team tented the area to create an exhaust/dust free environment. Before blasting 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 ½ to 4 mil anchor pattern then rebuilt lost metal around the tubes with RESIMETAL 201 Ceramic Repair Paste.

Lastly, two coats of RESIMETAL 203 Superflow Ceramic Repair Fluid were brush applied by the USI Team to give it a smooth, hydrophobic finish to be more efficient and provide an erosion corrosion free environment. The first coat is applied in red, the second in gray, that way as you do your regular maintenance checks on your chiller, if you start to see red you know it's time to re-coat before you allow the galvanic corrosion to happen.