JUNE WINNER

70 Red Buckets of Surprises!

My local representative is Tim Holmes. This story involves my working with Tim and Paul Atzemis on figuring a new lining system once my investigation into the coating failure was complete.

My story involves the interior corrosion of an Activated Carbon Injection (ACI) Silo. The original silo lining was based on the consideration that activated carbon is a very fine solid that would polish the silo metal walls as the solid emptied into the conveyor system at the bottom of the silo. The coating system worked fine for several years then I received a phone call from the plant saying that [it was failing].

Once the cause was discovered, I worked with Tim and Paul to find a coating solution. The coating needed to be acid proof and also have a teflon material to aid in slip resistance to eliminate any potential bridging or ratholing issues with the activated carbon inside of the silo. The solution was to use Plasite 4310 at 35-45 mils DFT. This coating gives the chemical resistance needed plus the abrasion resistance as well for the activated carbon material.

The 9 existing tanks in the field had the existing coating blasted to an SSPC-SP 10 and then the Plasite was applied per the Product Data Sheet. For the 12 tanks that were in fabrication, they were sent to a mechanical fab shop and the coating was applied in controlled conditions with the tank halves bolted together in the field.

This system has been in service for over 3 years now and there have been no internal lining issues. This coating system has also been shared with several other power companies who have the same ACI silo design.

My hats go off to Tim and Paul for answering my technical questions. Paul did the chemical compatibility work for me with the Carboline lab and Tim helped with answering questions by the coating contractor.

William Gusnard
Southern Company Generation



