

EBENSBURG POWER **PROGRESS REPORT**

Ebensburg Power Ebensburg, PA represents an excellent example of what HYDROLATOR provides to industry. Gary Anderson, plant manager, and Ric Ramsdell, plant engineer, have seen their plant cleaning up since our first installation on Sept 9, 2000. As you can see in our video (www.hydrolator.com) we first built a wooden dam inside the cooling tower, similar to the installation at Birchwood Power in Sealston, VA.

When the original tower load cell was removed it normally weighed 120 lbs wet. The fill was then replaced before HYDROLATOR was installed. Original dry weight of the new load cell was 20 lbs which increased only to 22 lbs (wet) and has stayed at that weight ever since. All tower surfaces have since cleaned up and water which previously fell in globs, is now broken up into fine droplets. All in all, a very clean operation. On the other hand, corrosion monitoring proved to be more difficult. Previous corrosion rates under chemical treatment were high, according to Ric, and his own readings after we installed were high for LPR (corrater) which we predicted, then gradually settled down. But coupons reports have been higher in the last 8 months (6-12 MPY). The coupons were grounded, but I believe that in the presence of our higher bulk water voltage and old chemical scale formations still dissolving into the system that the coupons are not yet reading true plant corrosion. Last year, Ric installed a spool piece (grounded) to ultrasonically measure metal loss. His current estimate of corrosion for mild steel is ~2 MPY. This is consistent with what was discovered in a test at Virginia Power CEC (attached) in which new metal surfaces of grounded coupons corroded aggressively, while passivated surfaces, exposed to several months of oxide coating in plant operation corroded very little; a ratio of 83 to 1 in fact. Finally, the plant went through a period of what I have labeled "re-coat": a redeposit of dissolved scale on non-cooling parts of plant surfaces, occasionally occurring during clean-up, then washing away in time. In this case, inside the water-box. Based on Gary's and Ric's concerns, we installed our water box insert unit in order to boost cathodic protection and clean-up. I believe the clean-up phase is pretty much behind us after 2+ years and that Ebensburg Power's waterside surfaces will be as pristine clean and corrosion free (as at Birchwood) for the life of the plant. For more information call Ted Light (410) 352-5524.