

RECORDED BENEFITS

- \$3 million in savings to date and increasing every year
- Reduced cleaning frequency by over 500%
- Improved heat rate
- Reduced DWD loadings
- Less potential for under-deposit corrosion
- Reduced downtime losses

Power Plant Reduces Cleaning Frequency by 500% and Saves Over \$3 Million

Mekor™ Corrosion Inhibitor

Improvement Opportunity

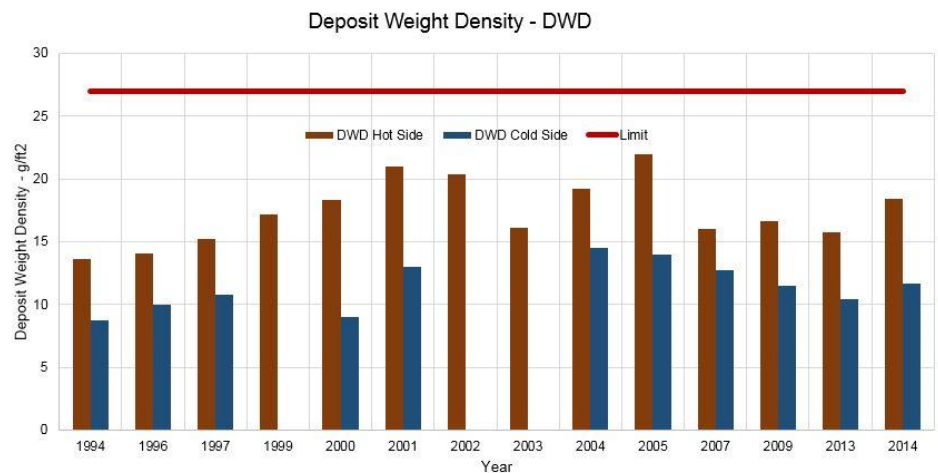
A large Mid-Western power plant began operation in 1981. This 350.5 MW coal fired facility had been using hydrazine as a volatile oxygen scavenger since start up and was chemically cleaning the boiler on a scheduled five year cycle. A power boiler is considered as a candidate for chemical cleaning based upon DWD (deposit weight density) loadings and operating pressure. For this 2600 psig unit, EPRI (Electric Power Research Institute) defines 27 gms/ft² as the point at which chemical cleaning should be done.

Recommended Solution

As an opportunity to improve overall corrosion inhibition, Solenis recommended the use of Mekor corrosion inhibitor, a volatile oxygen scavenger/metal passivator. The unit was chemically cleaned in 1986 and used hydrazine for the next two years. Mekor was introduced in 1988 and the plant chemically cleaned per the schedule again in 1991.

Results Achieved

The amount of iron and copper removed on the 1991 chemical cleaning was reduced by 88% for the iron and 41% for the copper. Due to the fact that DWD loading has not increased above 21 gms/ft² since then, the plant has not chemically cleaned for 25 years since 1991. Based upon similar unit chemical cleaning costs, the plant estimates that each chemical cleaning avoidance saved the plant between \$750,000 and \$1,000,000 as conservative estimate.



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