

## RECORDED BENEFITS

- Improved corrosion control
- Enhanced asset protection
- Greater production efficiency
- FAC mitigation
- Reduced maintenance
- Lower iron in the boiler water

## Polyamine Technology Allows Power Plant to Optimize Performance

### Amercor™ CF6725 Corrosion Inhibitor

#### Customer Challenge

A large 800 MW combined cycle power plant on the U.S. West Coast had been experiencing flow accelerated corrosion (FAC) in the LP evaporator sections of its heat recovery steam generators (HRSG) for 10 years. The company’s corporate management recently began looking for a new approach to control corrosion and contacted Solenis.

#### Recommended Solution

Solenis recommended the plant trial Amercor CF6725 corrosion inhibitor, a polyamine product that provides a high level of corrosion protection in boilers without sacrificing heat transfer. To gather baseline data on iron in the boiler water, a Sentry Corrosion product composite sampler was used as normal grab samples do not provide representative data. An integrated sampler uses filters to collect a continuous sample over time and the amount of corrosion products captured by the filters can be accurately measured in very low ppb units.

#### Results Achieved

The data shown in the table below are remarkable as typical grab samples values are in the low ppb range while iron values are actually in the ppt range. The data shows that the Amercor program significantly reduced FAC, providing effective corrosion control for the HRSG.

Unit	With Amercor	Without Amercor
<b>HRSG #1</b>	<b>ppb Iron</b>	<b>ppb Iron</b>
LP	0.61	0.41
IP	0.02	1.86
HP	0.04	7.03
<b>HRSG #2</b>	<b>ppb Iron</b>	<b>ppb Iron</b>
LP	0.06	5.45
IP	NM	1.12
HP	0.13	692.43
<b>HRSG #4</b>	<b>ppb Iron</b>	<b>ppb Iron</b>
LP	NM	0.05
IP	0.16	1.55
HP	0.32	0.14

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