

CUSTOMER CASE STUDY



INDUSTRY

Food Manufacturing

EQUIPMENT

(10) 300HP Boilers operating
24 hours/day, 6 days/week

LOCATION

Central Pennsylvania

CUSTOMER CHALLENGE

High water and fuel usage due to high blowdown rates.

The plant requires approximately 350 MMLBS of steam per year for its operation. An inefficient deaerator caused high dissolved oxygen content to be fed to the boilers (300-500 ppb).

To compensate, a large volume of liquid sulfite oxygen scavenger was used. This increased the dissolved solid level of the feedwater and reduced the overall cycles of concentration that could be run in the boiler. The result was increased blowdown rates.



CLARITY'S SOLUTION & KEY OUTCOMES

Clarity's EcoShield Boiler Treatment Technology was introduced as the solution.

EcoSHIELD is effective with inefficient and non-functioning deaerators because it works independent of the dissolved oxygen levels. It does not add to the dissolved solid levels of the feedwater and boiler water.

- Less chemical was required to safely protect the boilers from scale and corrosion, so there was a decrease in feedwater TDS.
- The customer was able to run 3 to 4 times more cycles within the first two months.
- Plant operators saw a dramatic reduction in blowdown, with an overall decrease in water and fuel costs.

Feedwater TDS Level		
220-240 ppm	60-80 ppm	64-75%
Before EcoSHIELD	After EcoSHIELD	Decrease
Average Cycles of Concentration		
15-18	55-65	3-4X
Before EcoSHIELD	After EcoSHIELD	Increase
Annual Blowdown Water		
25 MMLBS	4.6 MMLBS	82%
Before EcoSHIELD	After EcoSHIELD	Decrease
Total Blowdown Savings:		
\$60,150/year (Water and Fuel)		

**Contact Our Water Treatment Experts
for a FREE Consultation!**

(845) 589-0580

claritywatertech.com



Powered by EcoSHIELD, Clarity's proprietary chemistry that bonds with the metal surfaces of the steam system to form a protective barrier against corrosion.