

# CUSTOMER CASE STUDY



## INDUSTRY

Data Centers

## LOCATION

New Jersey

## EQUIPMENT

5 Chiller Plants (~500,000 gals system volume & 6,700 tons of cooling capacity)

## CUSTOMER CHALLENGE

Elevated corrosion rates throughout the cooling tower system, leading to unexpected failures, downtime and costly repairs.

The previous treatment program utilized a silica based product and had several major deficiencies:

- Required manual addition of chemistry by facility operators
- Elevated corrosion rates on condenser water side of centrifugal chiller, causing major equipment failures and expensive chiller repairs by the manufacturer

## CLARITY'S SOLUTION & KEY OUTCOMES

Clarity implemented a custom cooling water treatment program using our EcoSHIELD technology, along with new makeup water meters and chemical injection equipment.

EcoSHIELD bonds with metal surfaces to form a molecular protective layer. With systems operating upwards of 75 cycles of concentration and 30,000+ uS, EcoSHIELD technology has enabled this customer to achieve industry standard corrosion rates under some of the most strenuous water treatment conditions. It's even protecting stainless steel under high chloride concentrations (>3,000 ppm).

- Drastically reduced corrosion rates of chiller systems, preserving capital HVAC equipment
- Reduced downtime of equipment and improved reliability of central chiller plant
- Improved biological control due to biocidal properties of the EcoSHIELD program

### Improved Corrosion Rates in the First Year:

Average **0.87 MPY** Mild Steel

Average **0.17 MPY** Copper

Coupons from corrosion study after treatment with EcoSHIELD



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 cooling system to form a protective barrier against corrosion.