

SUSTAINABLE WATER TREATMENT TECHNOLOGY



SUSTAINABILITY

WHY TREAT COOLING TOWERS?

SCALE



INCREASES ENERGY,
MAINTENANCE AND
CLEANING COSTS

CORROSION



SHORTENS EQUIPMENT
LIFE AND INCREASES
CAPITAL EXPENSES

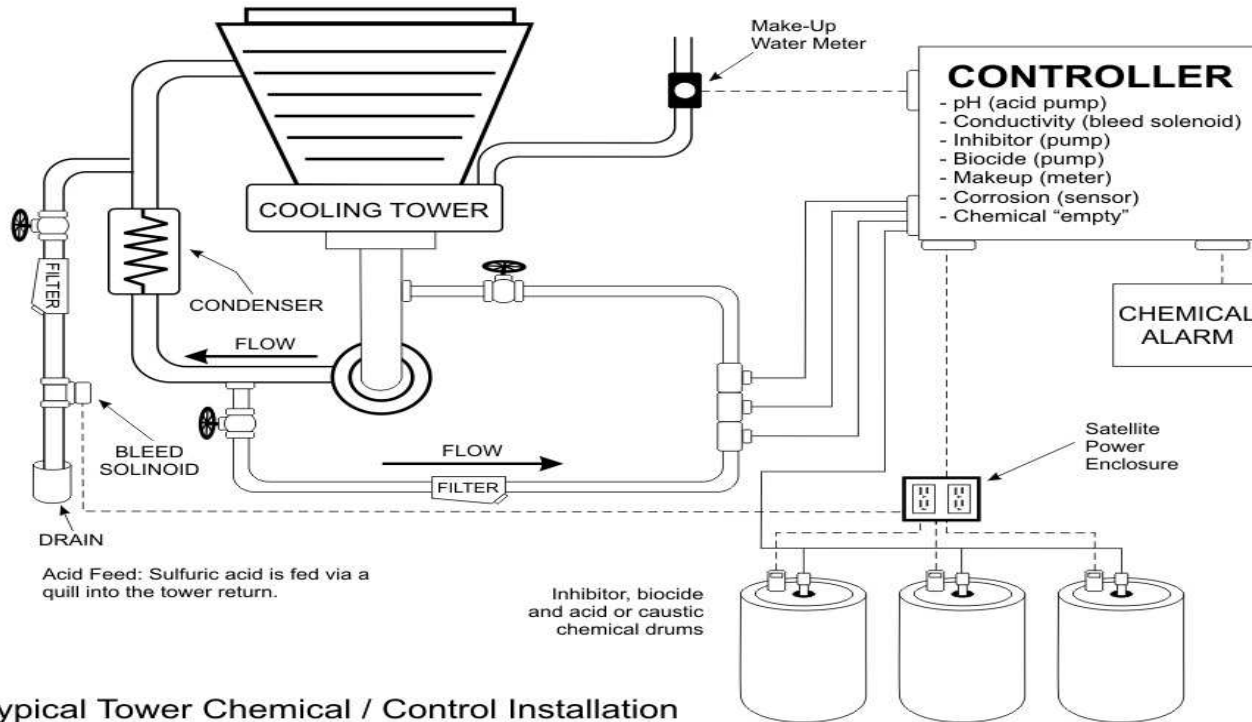
BACTERIA



6X MORE INSULATING
THAN SCALE
AND HEALTH/SAFETY
RISKS



TRADITIONAL WATER TREATMENT



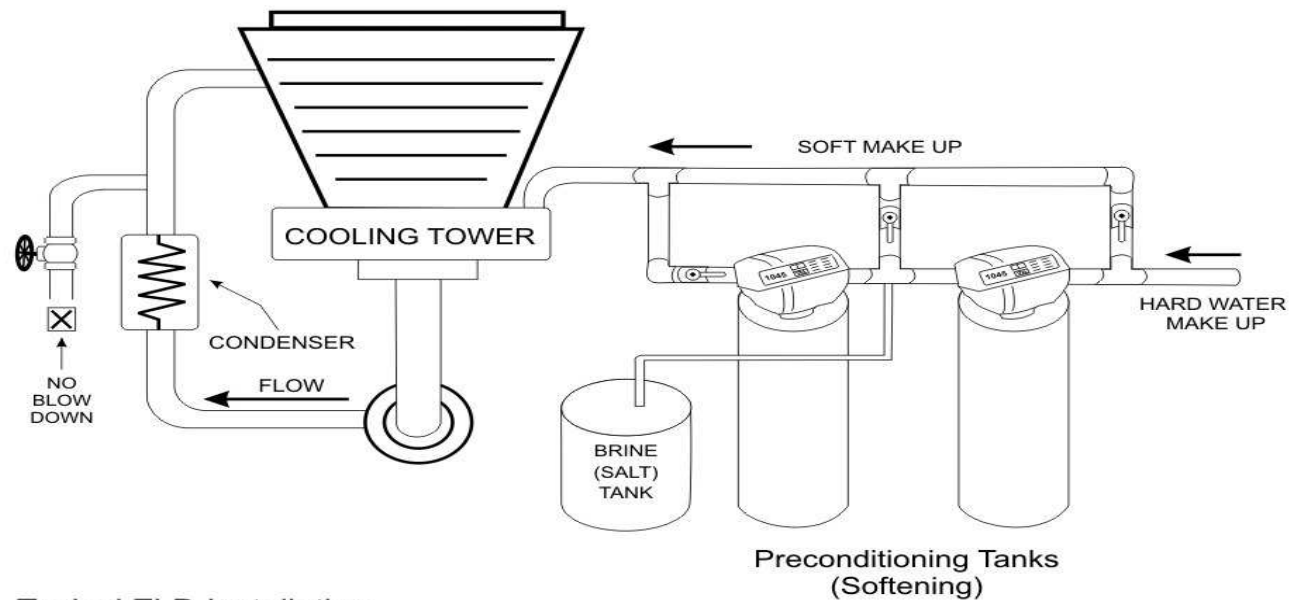
SUSTAINABILITY

WHY DOES TRADITIONAL WATER TREATMENT FAIL?

1. PROGRAMS RELY ON BLOW DOWN CONTROL
 - SOLENOIDS FAIL
 - MAKEUP FLOATS FAIL
 - CONTROLLER REQUIRE FREQUENT CALIBRATION
2. MULTIPLE CHEMICALS NEEDED
 - DIFFICULT TO MAINTAIN PROPER DOSAGE
 - ONSITE INVENTORY AND SECONDARY CONTAINMENT REQUIRED
 - WATER QUALITY VARIATIONS
3. POOR CHOICE OF PROGRAM CHEMISTRY
4. INCONSISTENT SERVICE PROVIDER
 - LEADERSHIP AND TRAINING SUPPORT



TYPICAL CAPTURE H₂O INSTALLATION



Typical ZLD Installation



How Does It Work?

- **SCALE CONTROL** – REMOVES SCALING MINERALS FROM MAKEUP USING PROPRIETARY SOFTENER/POLISHER
- INCREASE TOWER CYCLES FROM 3 TO >100 (ZERO BLEED)
- **BIOLOGICAL CONTROL** – CREATES BIOSTATIC ENVIRONMENT THROUGH PH >9.5 AND TDS >5,000 US
- **CORROSION CONTROL** – CYCLED UP SILICA >200 PPM POLYMERIZES PROTECTS ALL METALS AT HIGH TDS
- USES THE “NATURAL” CHEMISTRY OF WATER
- SIMPLIFIES WATER TREATMENT SYSTEM
- ELIMINATES WATER TREATMENT FAILURES ASSOCIATED WITH THE BLOW DOWN OPERATION



TYPICAL INSTALLATION



DUAL HIGH EFFICIENCY SOFTENERS



REMOTE PERFORMANCE MONITOR



TYPICAL RESULTS

- WORLD CLASS SCALE, CORROSION AND BACTERIA CONTROL
- REMOVAL OF EXISTING SCALE
- ELIMINATION OF CHEMICALS, PUMPS, TANKS, TUBING AND RELIANCE ON BLOW DOWN EQUIPMENT
- WATER REDUCTION > 40%
- SEWER REDUCTION > 90%
- SIMPLIFICATION OF WATER TREATMENT PROGRAM
- MORE CONSISTENT AND RELIABLE PERFORMANCE
- GREEN SUSTAINABLE TECHNOLOGY
- SHORT PAYBACK <24 MONTHS



CLEAN COOLING TOWERS AND CHILLERS



CLEAN TOWER FILL



CLEAN CHILLERS



SUSTAINABILITY

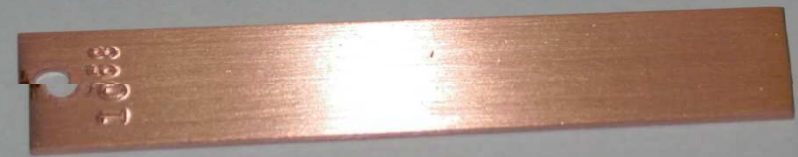
TYPICAL CORROSION RESULTS

NACE INDUSTRY STANDARDS FOR OPEN RECIRCULATING
COOLING WATER

	<u>Excellent</u>	<u>Good</u>	<u>Acceptable</u>
Mild Steel:	<2.5 mpy	2.6-4.0 mpy	4.1-5.5 mpy
Yellow Metal:	<0.4 mpy	0.5-0.8 mpy	0.9-1.2 mpy



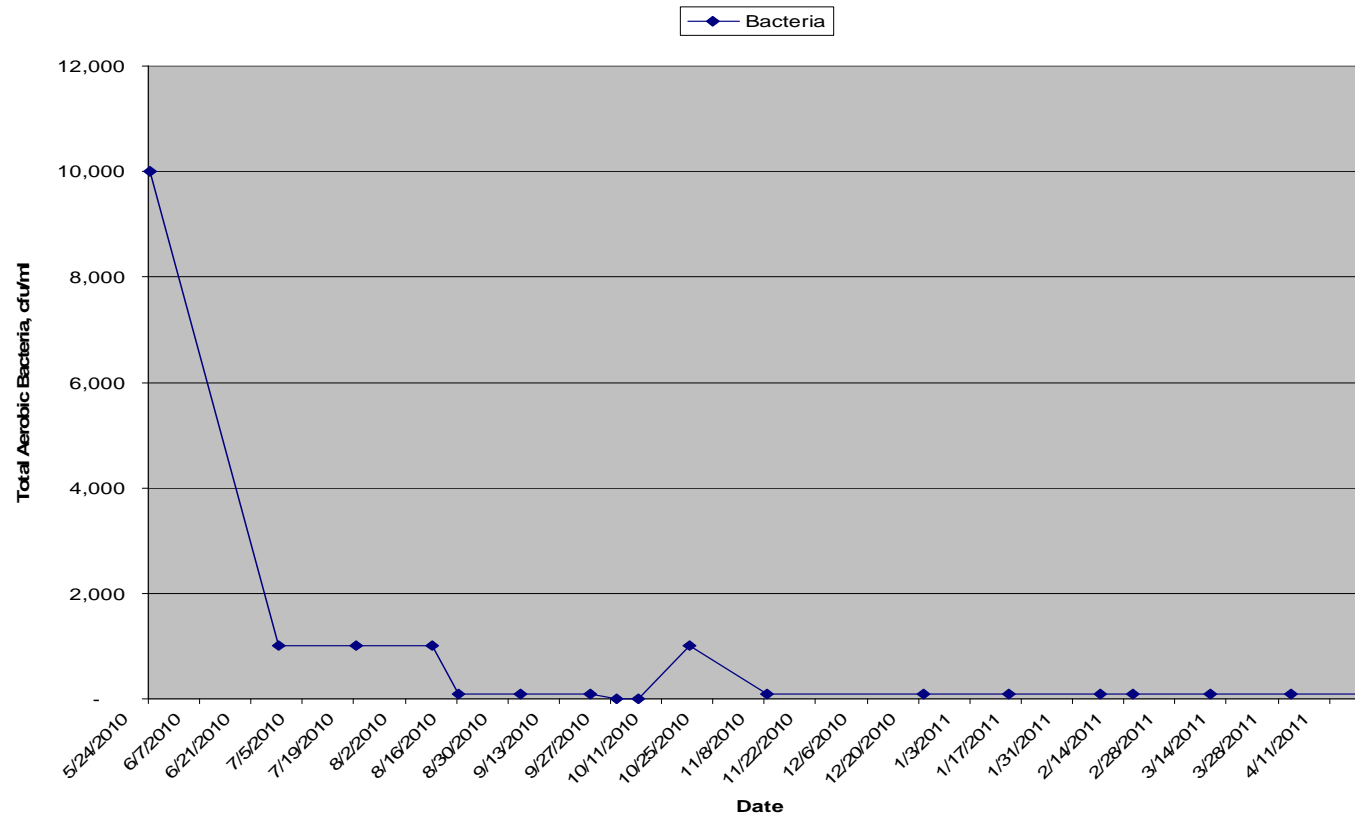
TYPICAL MILD STEEL CORROSION – 0.27 MPY



TYPICAL COPPER CORROSION – 0.02 MPY



MICROBIOLOGICAL RESULTS



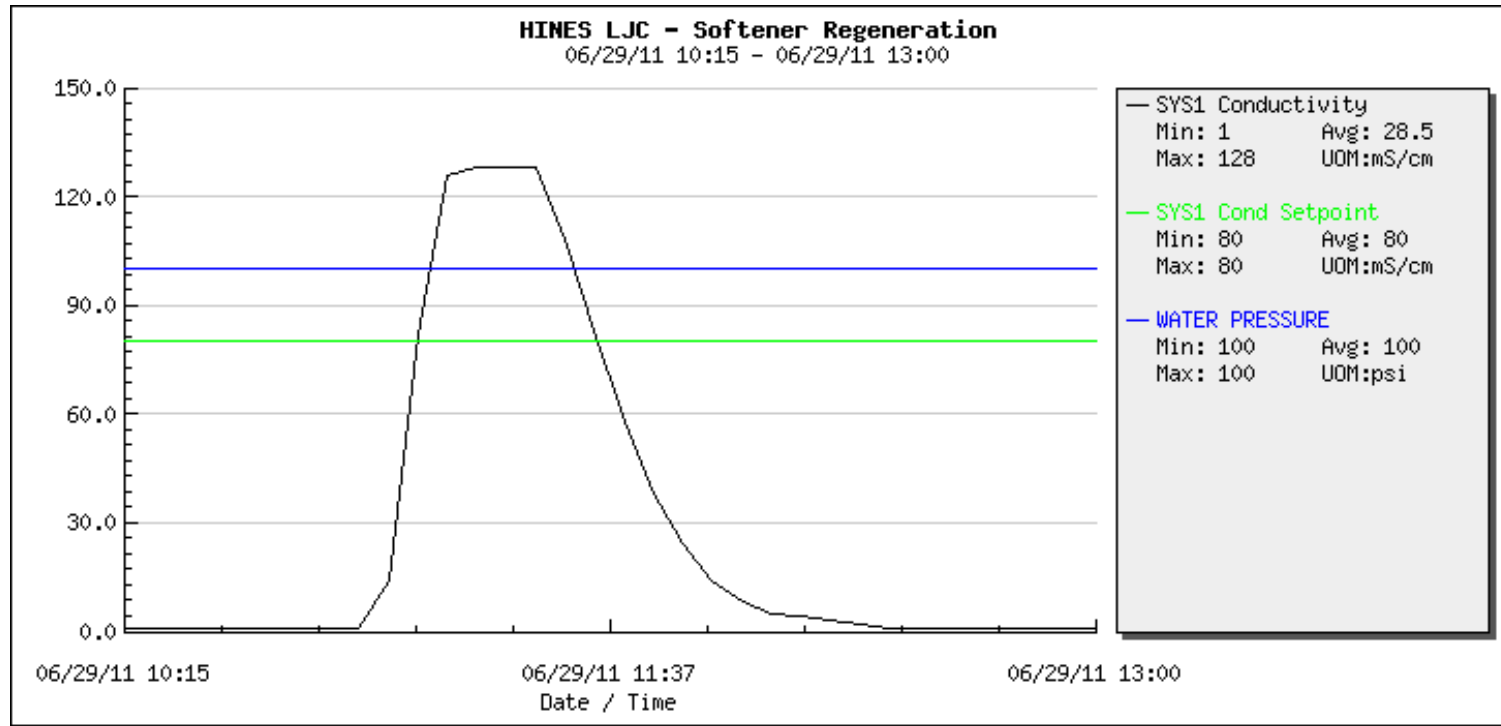
SUSTAINABILITY

REMOTE PERFORMANCE MONITOR

- MONITORS REGENERATION QUALITY, WATER USAGE, PRESSURE, CONDUCTIVITY AND PH
- ENSURES CONSTANT SOFT WATER
- MONITORS 24/7/365
- SEND ALARMS AND REPORTS TO USERS
- EXCELLENT DIAGNOSTIC TOOL

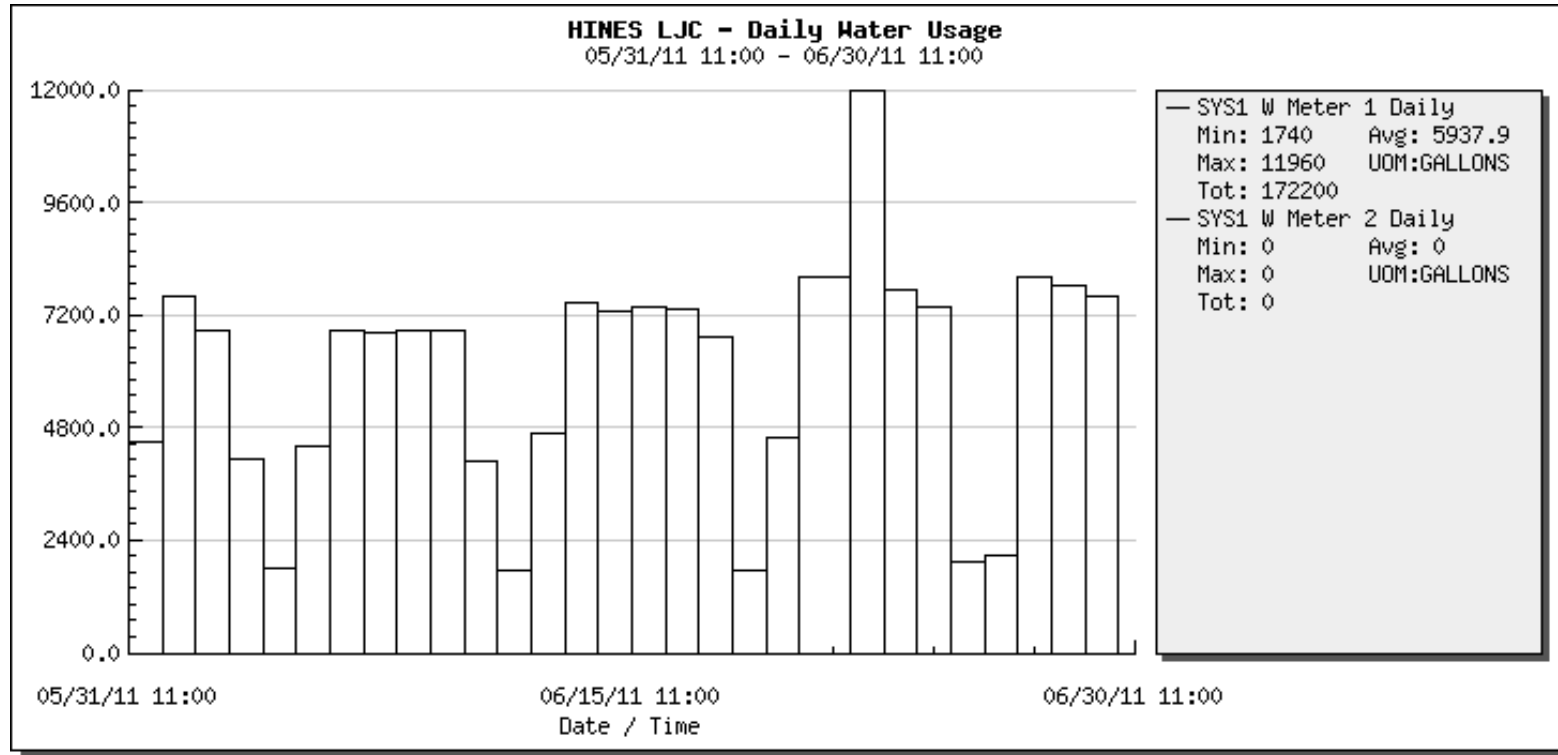


REMOTE MONITOR REGENERATION GRAPH



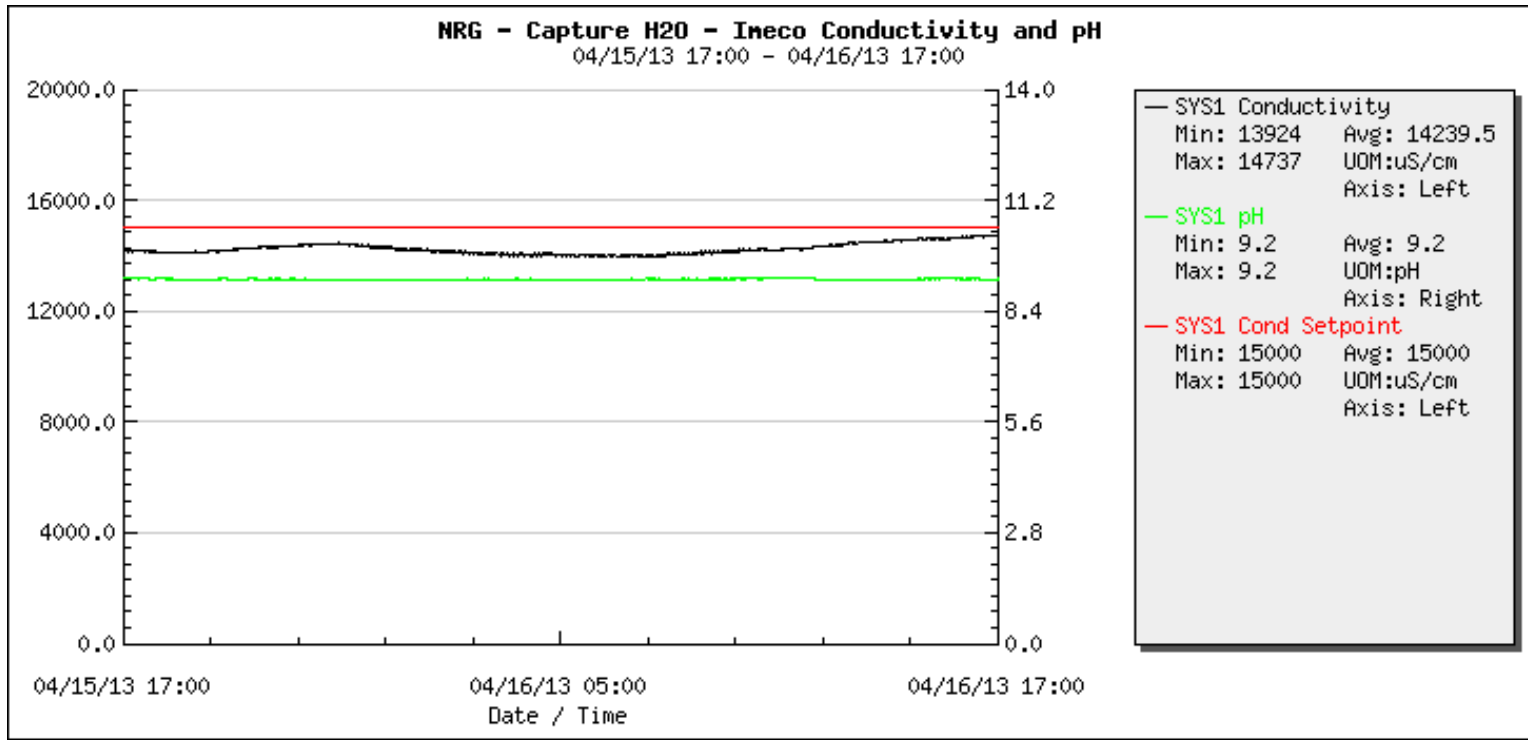
SUSTAINABILITY

REMOTE MONITOR WATER / SEWER USAGE



SUSTAINABILITY

REMOTE MONITOR CONDUCTIVITY AND PH



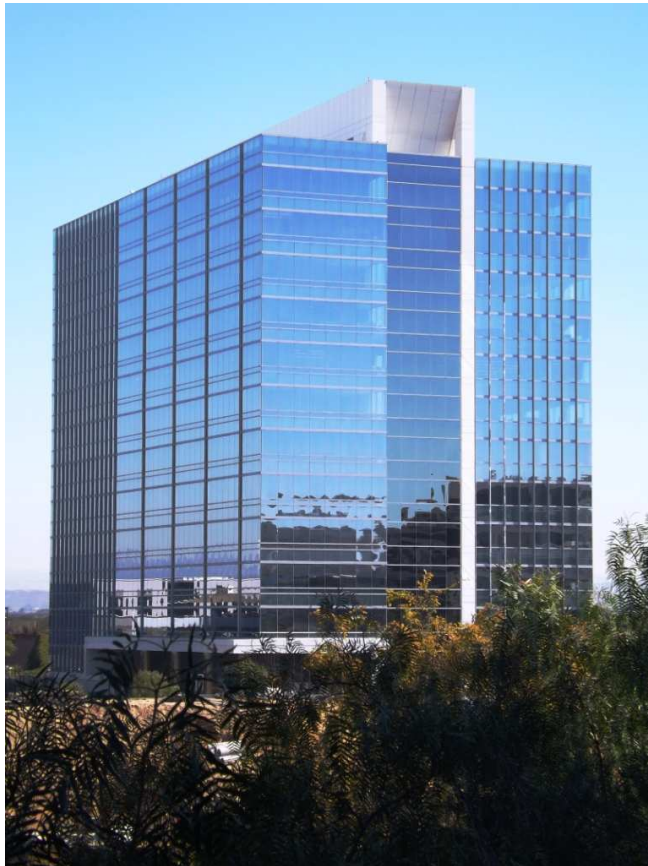
SUSTAINABILITY

IMPLEMENTATION

- SITE SURVEY
- EQUIPMENT SIZING AND PRICING
- EQUIPMENT INSTALLATION
- MONTHLY SERVICE







Capture H₂O

SUSTAINABILITY

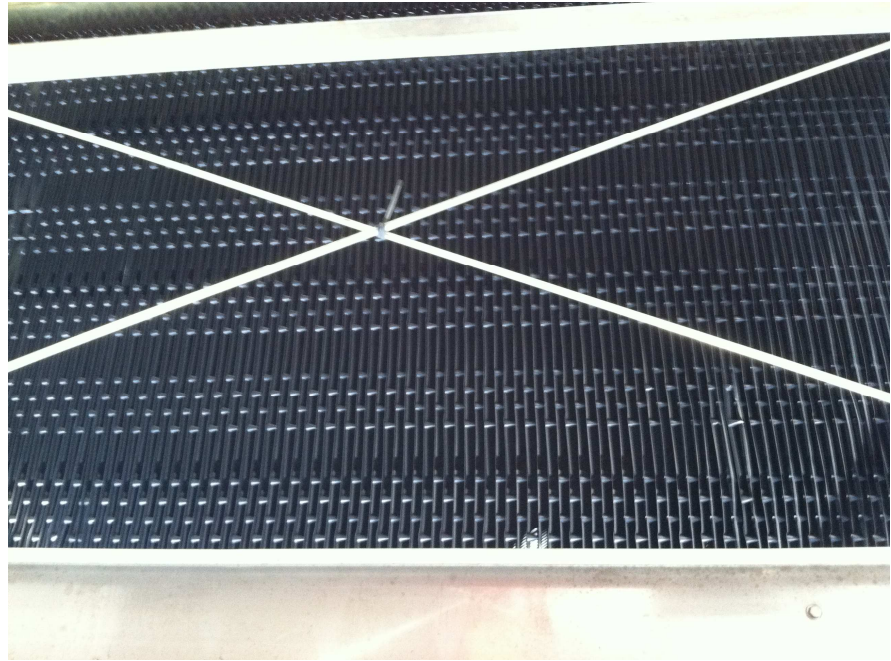


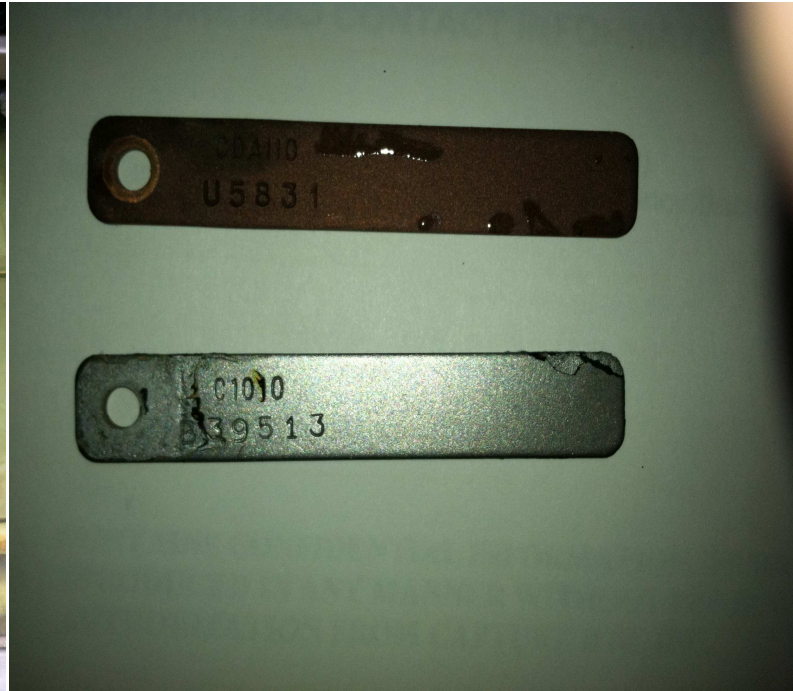
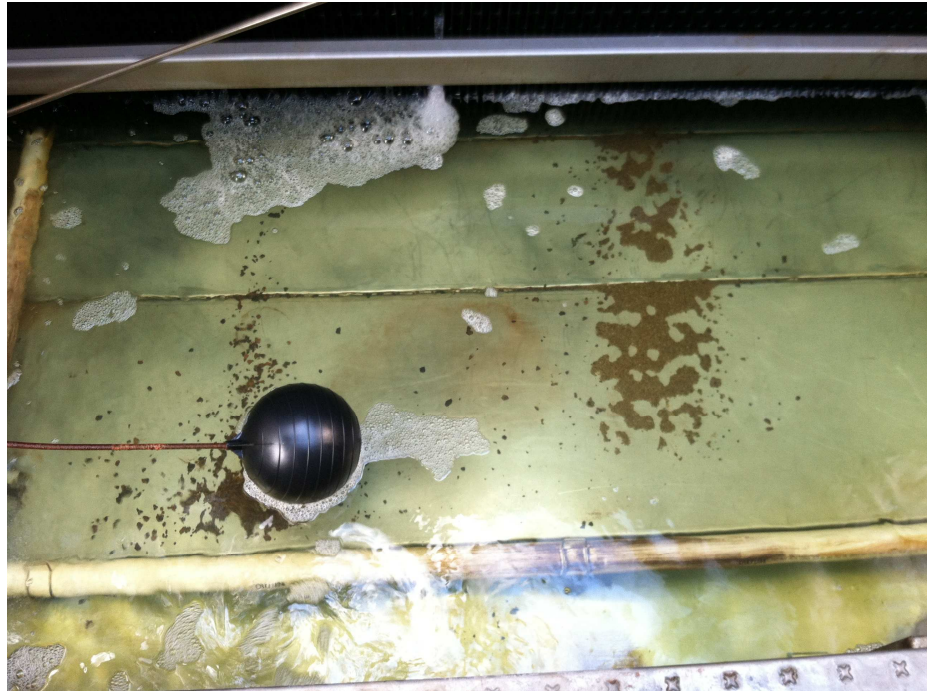


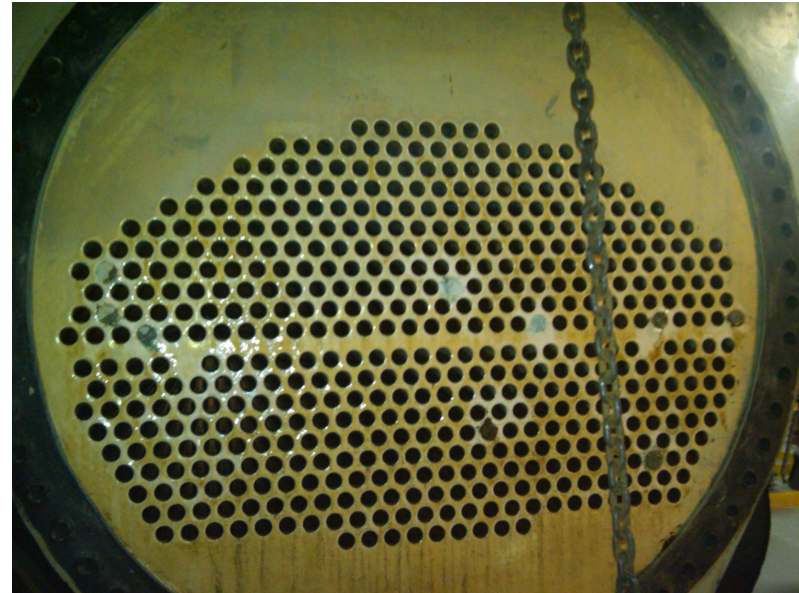
Capture H₂O

SUSTAINABILITY









Capture H₂O

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