

# No Blowdown – No Chemical Feed



## Cooling Tower Treatment

### WCTI Patented Technology for Cooling Tower Treatment and Water Conservation ZERO Blowdown Silica based Technology

- **High Efficiency (HES) removal of hardness minerals will eliminate scale risk**
- **Natural minerals in the water are used to eliminate corrosion and biological growth**
- **Cooling Tower Blowdown is reduced from 20-40% to less than 2%**

### Water Conservation Technology International Bringing “Green” Innovation to your Facilities

#### WCTI presents more LEED point potential

- LEED NC WE 2.0
- LEED EBOM WE 4.1 & 4.2

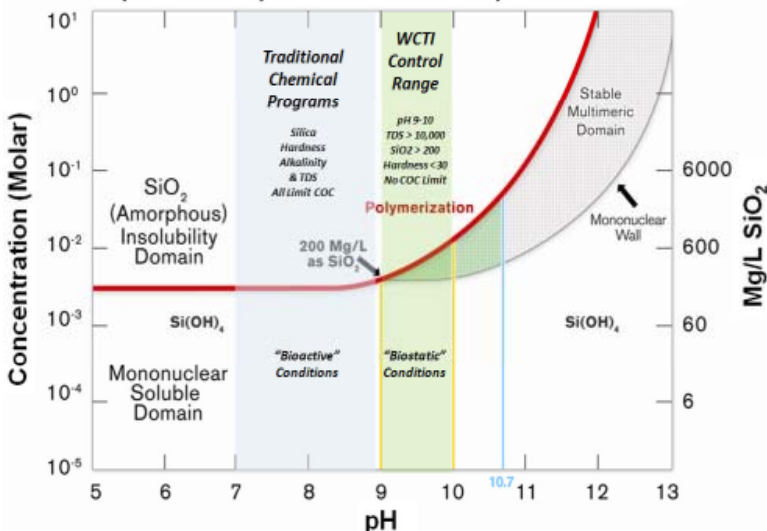
#### LOW CARBON FOOTPRINT

- ✓ Minimize heat transfer loss
- ✓ Avoid high energy consuming devices
- ✓ Eliminate manufactured chemicals

#### LEAN / OEE

- ❖ Minimize water use and disposal costs
- ❖ Reduce capital expense / investment
- ❖ Reduce variables for work flow improvement
- ❖ Reduce operator time and safety risks
- ❖ Optimize energy use (heat transfer) cost
- ❖ Reduce equipment cleaning and replacement
- ❖ Reduce chemical handling and storage
- ❖ OEE - Optimize Equipment Efficiency

Species in Equilibrium with Amorphous Silica



#### Water Savings with WCTI

System Design Information	Current	Proposed
Cooling - Design Capacity Tons	1500	1500
Cooling - Peak Load Tons	1200	1200
Cooling - Average Load Tons*	1,000	1,000
Average Load Evaporative GPM	25.0	25.0
Cycles of Concentration	2.5	50
Blowdown GPM	16.0	0.5
Make-Up GPM	40.0	24.5
Avg Raw Total Hardness, mg/L CaCO <sub>3</sub>	200	0.5
Cost of Make-up per 1,000 Gals.		\$ 2.00
Cost of Blowdown per 1,000 Gals.		\$ 1.00
Current Annual Water Use	Gallons	21,024,000
Proposed Annual (Reduced) Water Use	Gallons	12,871,837
<b>Annual Blowdown Water Saved</b>	<b>Gallons</b>	<b>8,152,163</b>
Water Savings (before Regenerate cost)	\$/Year	\$ 24,066.46