NON-CHEMICAL WATER TREATMENT FOR COOLING TOWERS

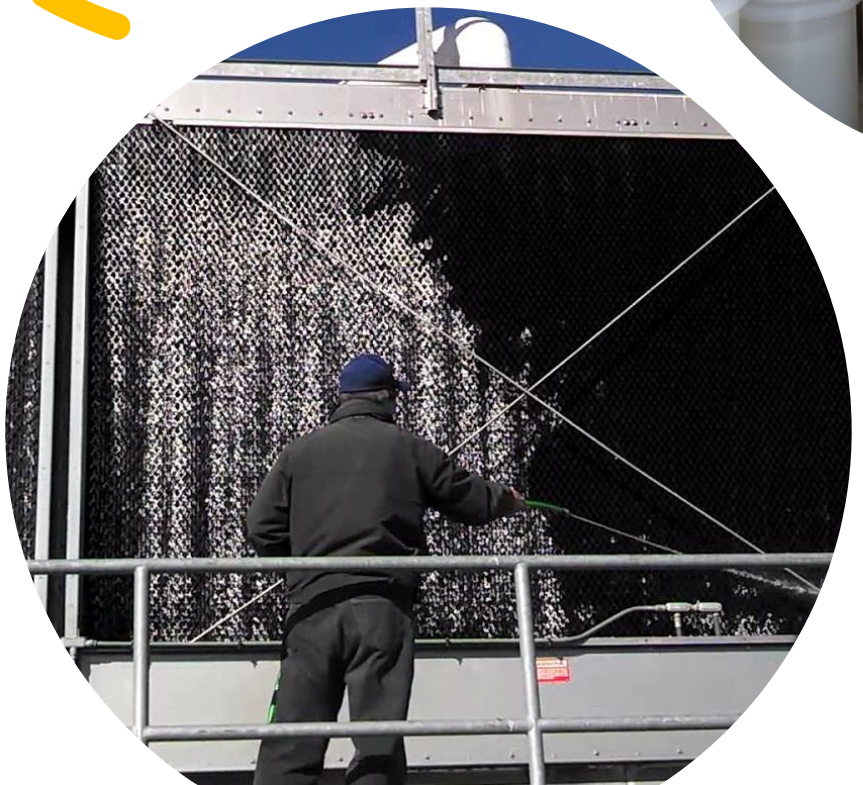
SCALE & BIO REMOVAL

Zero Chemical

Water Savings

CHALLENGES IN WATER COOLED CHILLERS & COOLING TOWERS

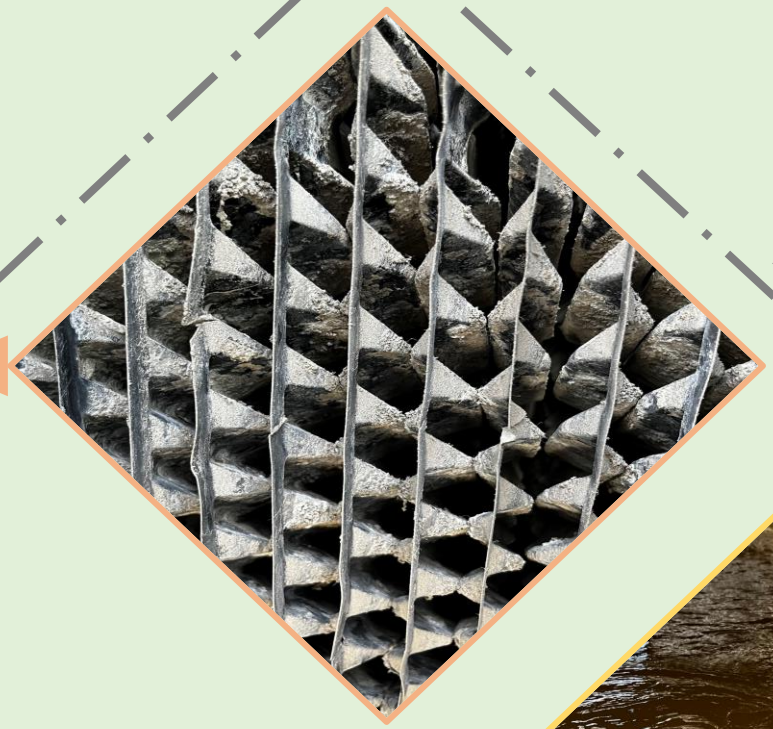
- Water Availability
- Cooling tower maintenance
- Problems of Scaling ,Bio-Fouling & Corrosion
- Chemical Dosing & Handling
- Blow Down Treatment

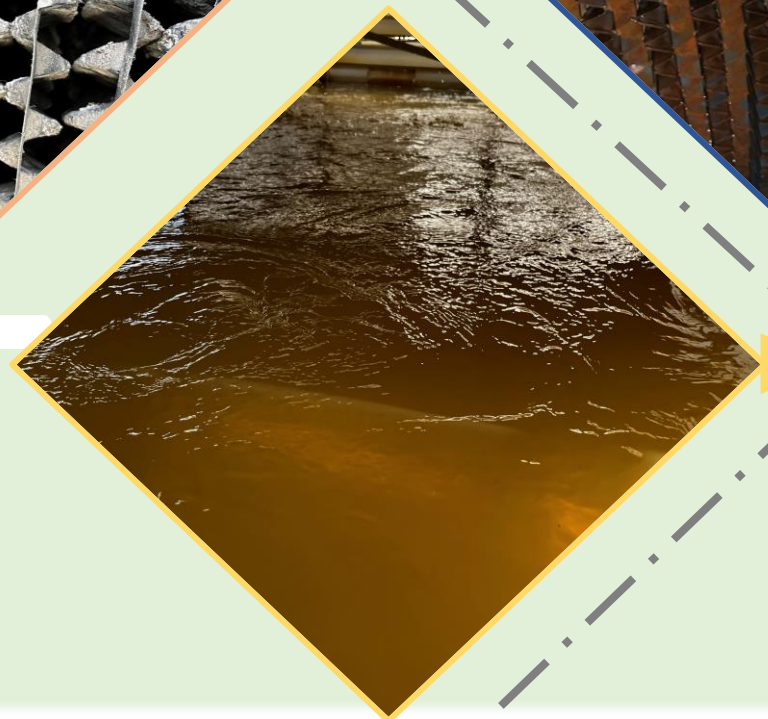


MAINTENANCE IN COOLING TOWER

REPLACEMENT OF FILS

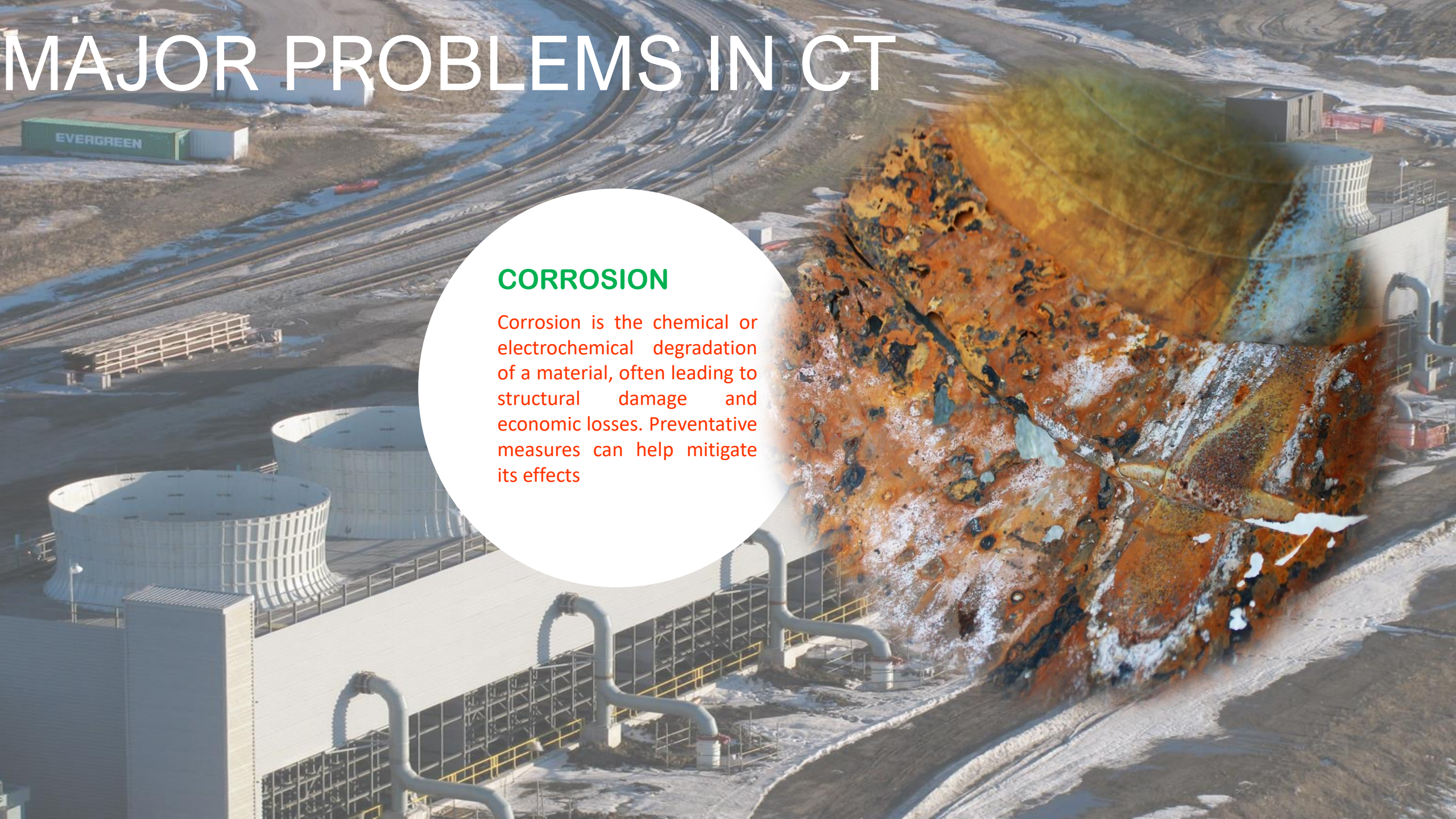
CLEANING OF FILS





CLEANING OF SUMP

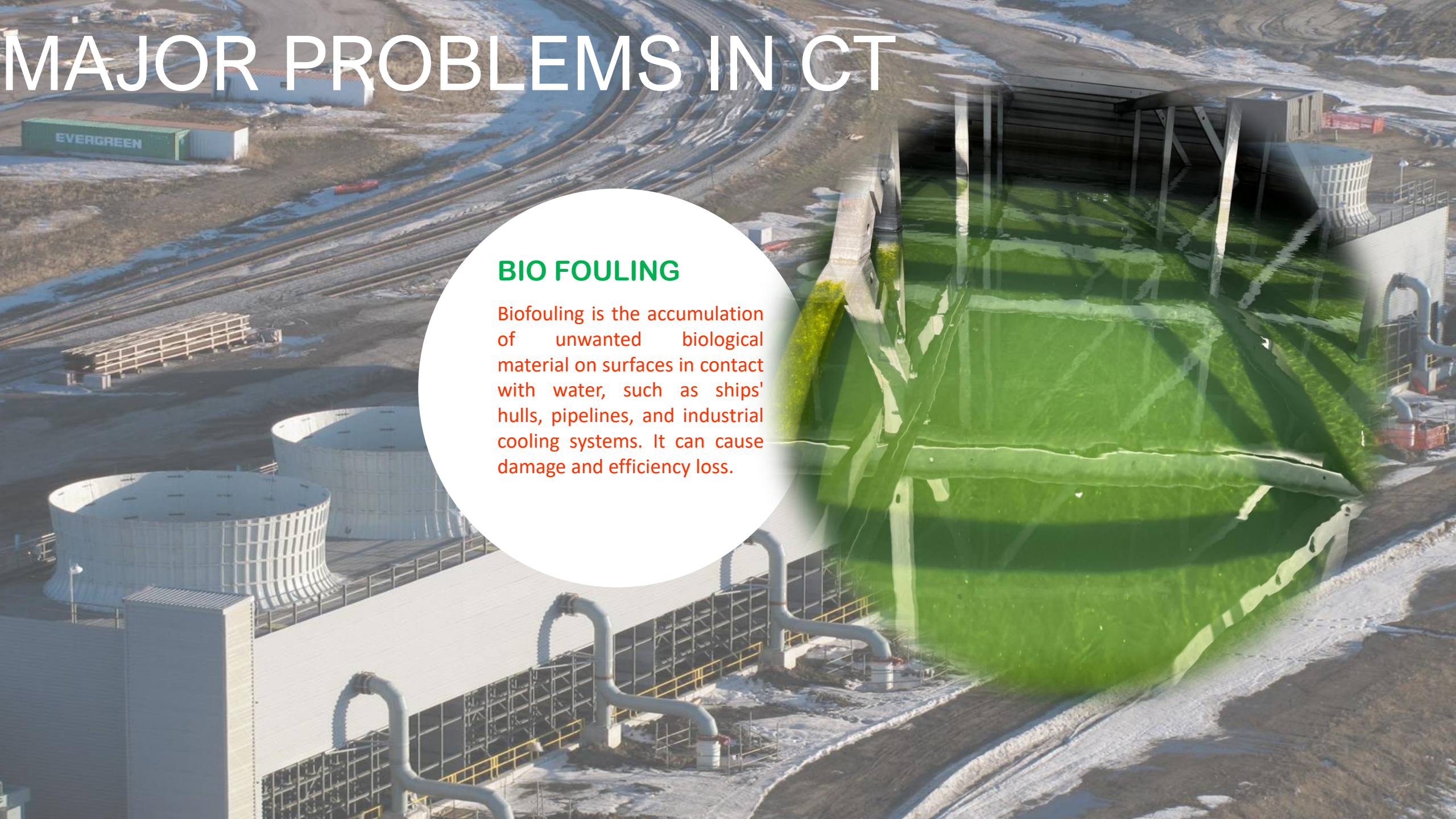
MAJOR PROBLEMS IN CT



CORROSION

Corrosion is the chemical or electrochemical degradation of a material, often leading to structural damage and economic losses. Preventative measures can help mitigate its effects

MAJOR PROBLEMS IN CT



BIO FOULING

Biofouling is the accumulation of unwanted biological material on surfaces in contact with water, such as ships' hulls, pipelines, and industrial cooling systems. It can cause damage and efficiency loss.

MAJOR PROBLEMS IN CT

Scaling

Scaling is the accumulation of mineral deposits, such as calcium and magnesium, on surfaces in contact with water. It can cause clogging, corrosion, and decreased efficiency in industrial processes and HVAC system.

BLOWDOWN OF WATER

CHEMICAL DOSING [2000 KG/Year]
for a 1000TR cooling tower.

TRADITIONAL METHODS

CHEMICAL DOSING

WATER BLOWDOWN [190M3/day]
for a 1000TR cooling tower.

C E T

WILL IT SOLVE YOUR PROBLEM?

NO!

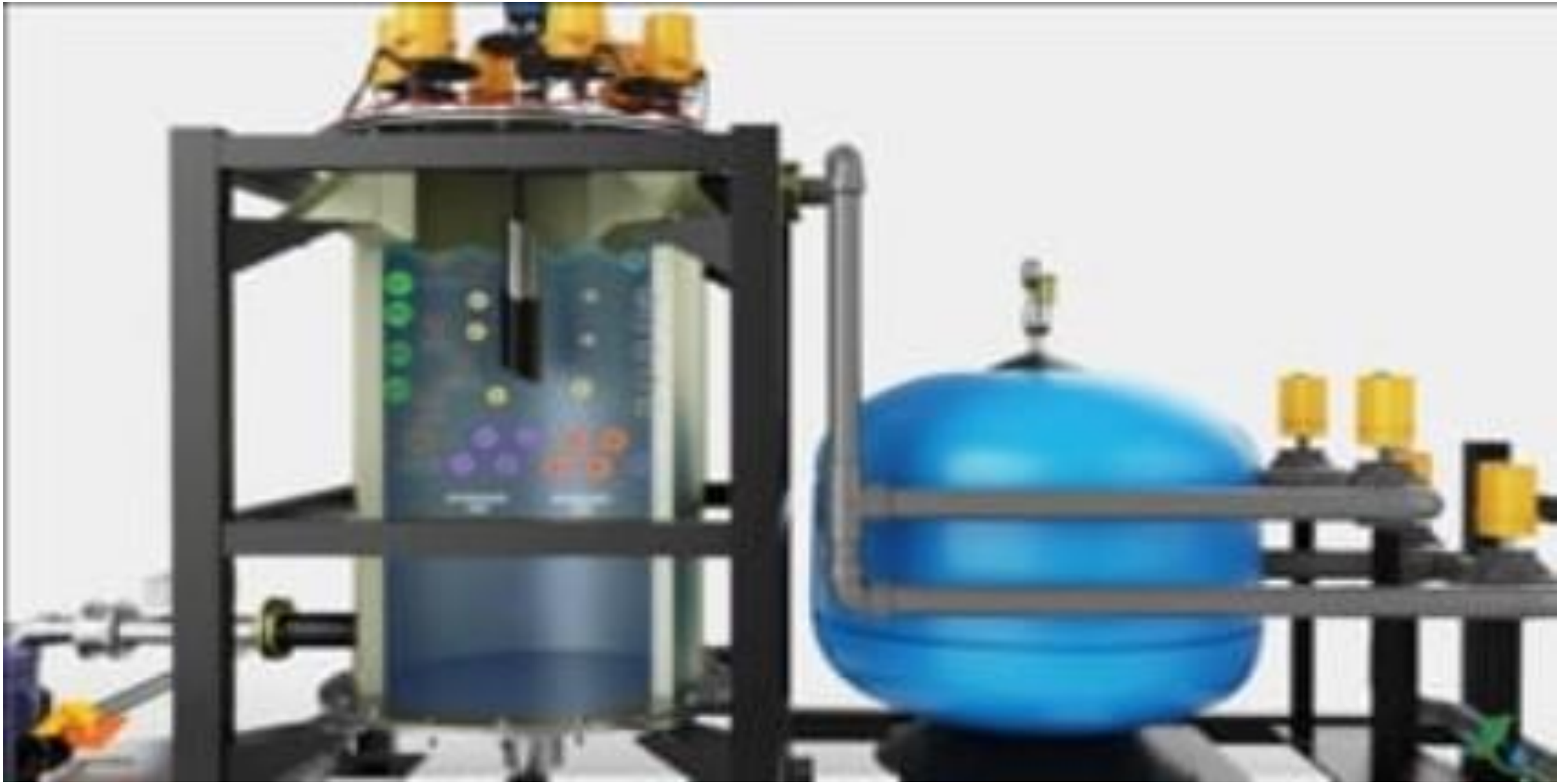
SBR

THE ONE STOP SOLUTION FOR

- Eliminate Chemical Dosing
- Save up to 66% of Blowdown Water
- No Scaling & Corrosion
- Reduced Maintenance

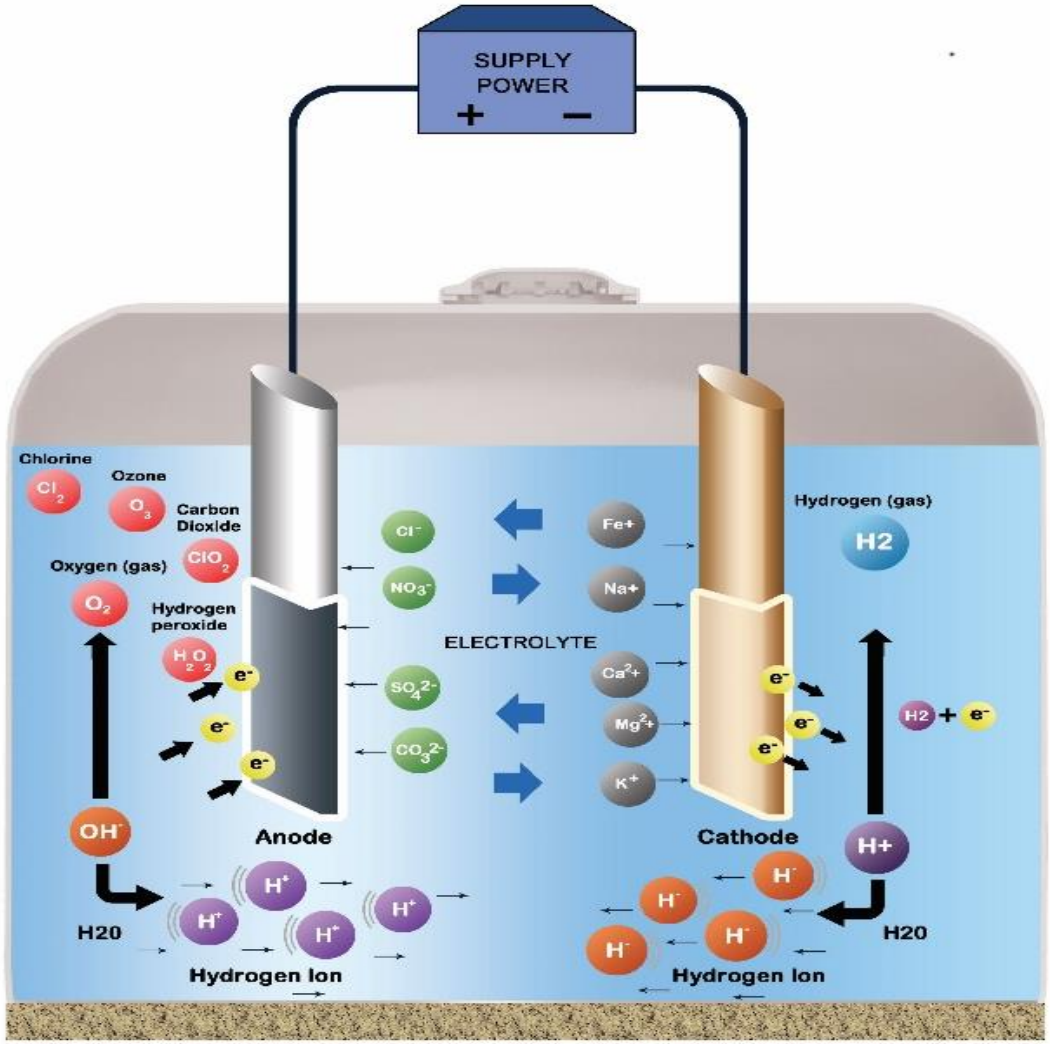
CET ENVIRO
COOLING EFFICIENCY TECHNOLOGIES

PRODUCT VIDEO - SBR

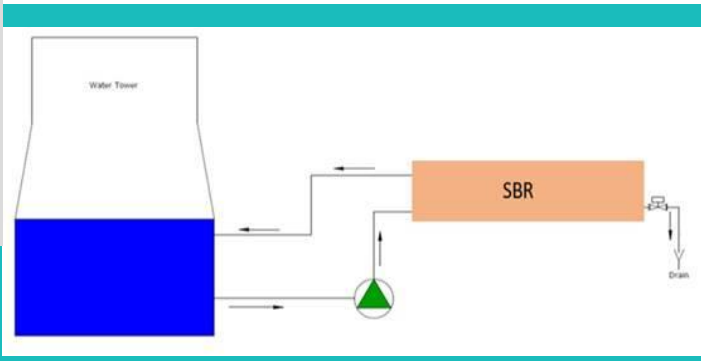


PROCESS EXPLANATION - SBR

Deploys ELECTROLYSIS reaction that breaks down and controls the elements that pollute water quality.



SITE FLOW CHART / PROCESS FLOW



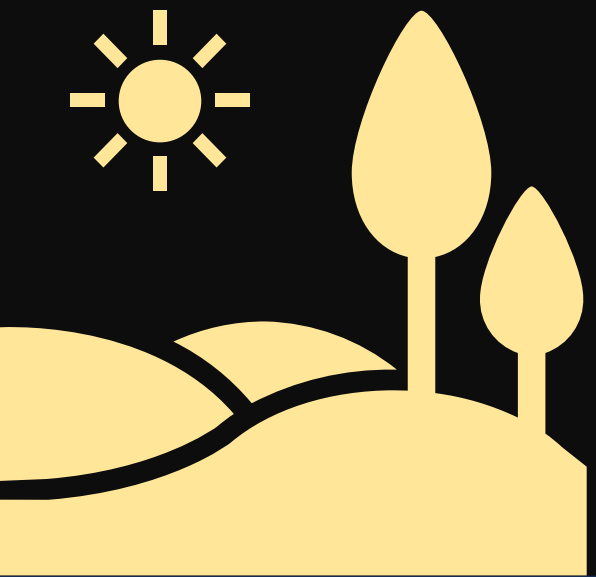
When Electricity is passed through the anode and cathode. The dissolved Ion will start precipitation due to polarity of charges. Chlorine and Other oxidizers are generated due to reaction. The Scale which causes damage of fils and poor HEX will be ACCUMILATED on the Cathode.

SUSTAINABILITY DASHBORD

0 **Million M3**
of Water Saved

0.0 **Billion KWH**
of Energy Saved

0.0 **Million Tons**
of Co2 Reduction



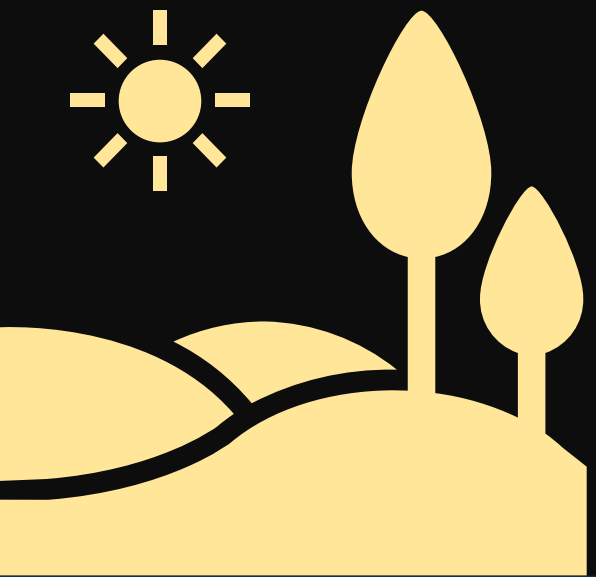
C E T

SUSTAINABILITY DASHBORD

5 **Million M3**
of Water Saved

1.3 **Billion KWH**
of Energy Saved

1.1 **Million Tons**
of Co2 Reduction



C E T

SUSTAINABILITY IMPACT

REDUCING CO2 FOOTPRINT

The energy saving by increasing water quality.

ZERO CHEMCIALS USAGE

Total Elimination of chemicals Dosing system.

WATER SAVINGS

The 66% of BD water saving and use BD water for Irrigation.

LEED POINTS

The product complies to LEED certification standards.

SUCCESS STORIES – MONDELEZ FACTORY, BRAZIL

Chemical Consumption in USD

Before SBR/ Month	After SBR/ Month
$ 6,441	$ 0

Annual Savings

$ 77,292 / 6,441 per Month

Water Consumption in M3

Before SBR/ Month	After SBR/ Month
5,128 M3	4,498 M3

Annual Savings

7,560 M3 / 630 M3 per Month

Successful Installation of SBR, June 2022

Zero Chemical Dosing

Water Reduction – **7M liters/year (7,000 M3/Year)**

Total Annual Savings by SBR **USD 80,392**

CET ENVIRO
COOLING EFFICIENCY TECHNOLOGIES

Thank you!