

Targets of the Treatment

Corrosion Rate	< 3 MPY for Mild Carbon Steel
Corrosion Rate	< 0.2 MPY for Stainless Steel
Microbiological count	< 10000 counts / ml
Scaling	No Scaling
SRB / (Sulphate Reducing Bacteria)	Negligible

PLANT DATA

The Plant data is tabulated below:

COOLING TOWERS:

PARAMETERS	OGDCL QADIRPUR
Cooling Water Recirculation Rate, m3/hr	432 m3/hr
Cooling Water Delta T, Degree C	5
Cooling System Volume	14 m ³
Cooling Water Cycles	2 to 3
Cooling Water Type	Induced Draft

AVAILABLE MAKE UP WATER ANALYSIS

As per Lab analysis of make-up water at Qadirpur plant:

PARAMETERS	Makeup, Qadirpur
pH	7.20
Conductivity	724
M-Alkalinity	260
Calcium	192
Chlorides	90
TSS	2
Iron	0.72

PO4	0.34
TDS	353
Zinc	.09

CONTROL PARAMETERS

These parameters are the control guidelines for the monitoring of COOLING WATER.

COOLING WATER:

PARAMETER	CONTROL RANGE
pH	7.8 - 8.9
Conductivity	Max. 2500 us/cm
Calcium Hardness ¹²	200 – 400 PPM
M-Alkalinity	200-450 PPM
Suspended Solids	< 30 PPM
Cooling water Total Iron	Max. 1 PPM
Free Chlorine	0.2 – 0.5 PPM
TBC Weekly	< 10000 org/ml
Organic Phosphate	1.5 PPM to 4.5 PPM
Corrosion Rate MS	< 1 MPY
SRB	Nil / Negligible