



SCG - DOW CHEMICAL GROUP
Siam Polyethylene Co., Ltd. (Train 2)



038-673656

SUEZ WATER TECHNOLOGIES & SOLUTIONS (THAILAND) CO.
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Report to: K. Waranya
CC: K.Keng
Sampling Date: 24-Dec-18
Sampling Time: 8:30

Cooling Treatment Report

1.) Analysis Result

Parameters	Makeup	SPE2 Cooling Water	
		Actual	Control
pH	7.91	7.91	7.5-8.3
Conductivity, microsiemen/cm	274	1,172	<3,000
Turbidity, NTU	1.25	2.88	<50
Total hardness, ppm as CaCO3	60	190	< 350
Calcium hardness, ppm as CaCO3	40	122	
M-Alkalinity, ppm as CaCO3	69	60	<200
Chloride, ppm as Cl-	40	200	<250
Silica, ppm as SiO2	11.5	32.1	<200
STP polymer, ppm		8.40	8.0 - 12.0
Zinc, ppm as Zn		1.35	1-2
Total Iron, ppm as Fe	0.054	0.241	<3.0
Microbiological Bacteria (MB), cfu/ml		28	<10,000
Free Residual Chlorine, ppm FRC		0.30	0.2-0.5
Langelier Saturation Index (LSI)		1.59	<2.85
Molybdate, ppm		-	NS
Suspended Solid (SS), ppm		-	NS
Cycle of concentration, cycles based on Chloride		2.79	< 5

*Use non-phosphate chemical treatment program

2.) Operating Condition.

Parameter	Cooling
Recirculating rate (T/H)	4,492
WS Temp (Deg.C)	28.00
WR Temp (Deg.C)	32.12
Delta T (degree C)	4.12
Evaporation (T/H)	28.3
Total blowdown (T/H)	15.8
Makeup (T/H)	44.1

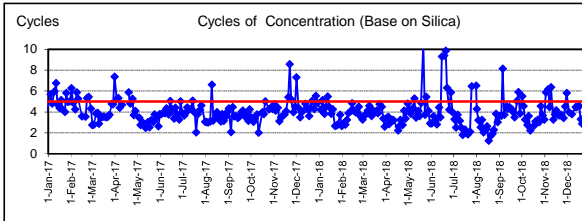
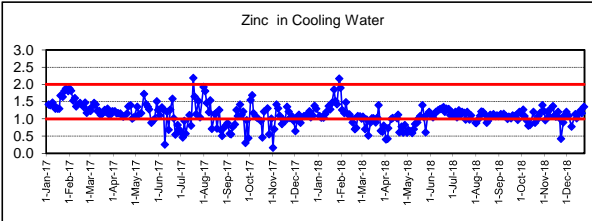
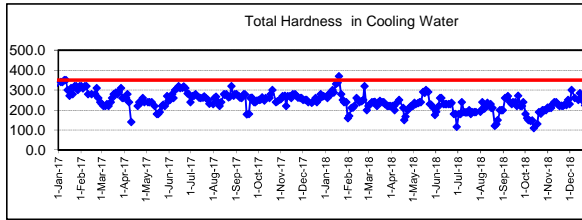
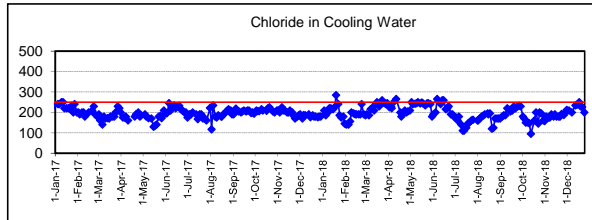
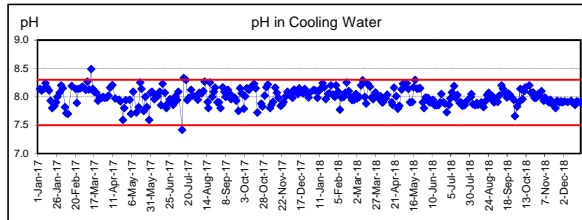
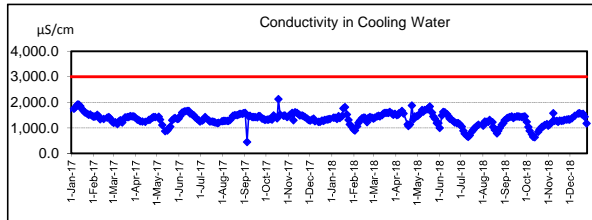
3.) Bleed Valve Opening

Location	m³/hr
Bleed valve	9.0
Total bleed opening	9.0

Note: Bleed is blowdown valve.

4.) Chemical Feeding Condition

Chemical	Stroke/Speed	(Tote)	Remark
GN8203	50	-	1
GN7004	50/30	-	1
NaOCl	90/60	-	
OX1201	40/30	-	1
MS6207	30	-	2
H2SO4	-	-	
NX1100	-	-	2



5.) Recommendation.

Please keep this condition.

6.) Action Taken.

Actions	By	Date