

$$M = E + B$$

Make up water = Evaporation + Blow down
 Evap = (Rec.gpm) (.001) (D°F)
 Blow down = Evap / COC-1

Evaporation

Before	After
18	18

9.46 MGPY



Chemical Bill

Before	After
\$10,000.00	-\$10,000.00

Make up gpm

Before	After
54	54

28.38 MGPY

Blowdown gpm

Before	After
36	36

18.92 MGPY

	Before	After
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C. tons	1,000	1,000
Recirculation	3,000	3,000
D°F	6	6.00
Evap, (gpm)	18	18

	Before	After	Savings	Costs
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	COC	1.5	1.5	N/A	water cost : \$ / gal.
	Blow down	36	36	See below	0.008
	Make up water	54	54	See below	chemical bill / ton
	Reused water	NA	36	\$151,372.80	\$10.00
KW / TON	Chemical bill	\$10,000	\$0	\$10,000.00	\$ / kw-hr
0.7	Energy	\$1,533,000	\$1,533,000	\$0.00	\$0.25

Lease	\$18,000.00
	5.28%

After deducting chemical bill, lease is covered by reusing only 5.28% of the water