

Case Study: Samyang

Turbidity, suspended solids and organic matter reduction

Company: Samyang
Location: South Korea
Year: 2012
Description: River water filtration to Cooling water makeup
Goal: Turbidity, suspended solids and organic matter reduction
Capacity: 180 m³/hour 3 towers
Water Source: Surface water



The Problems:

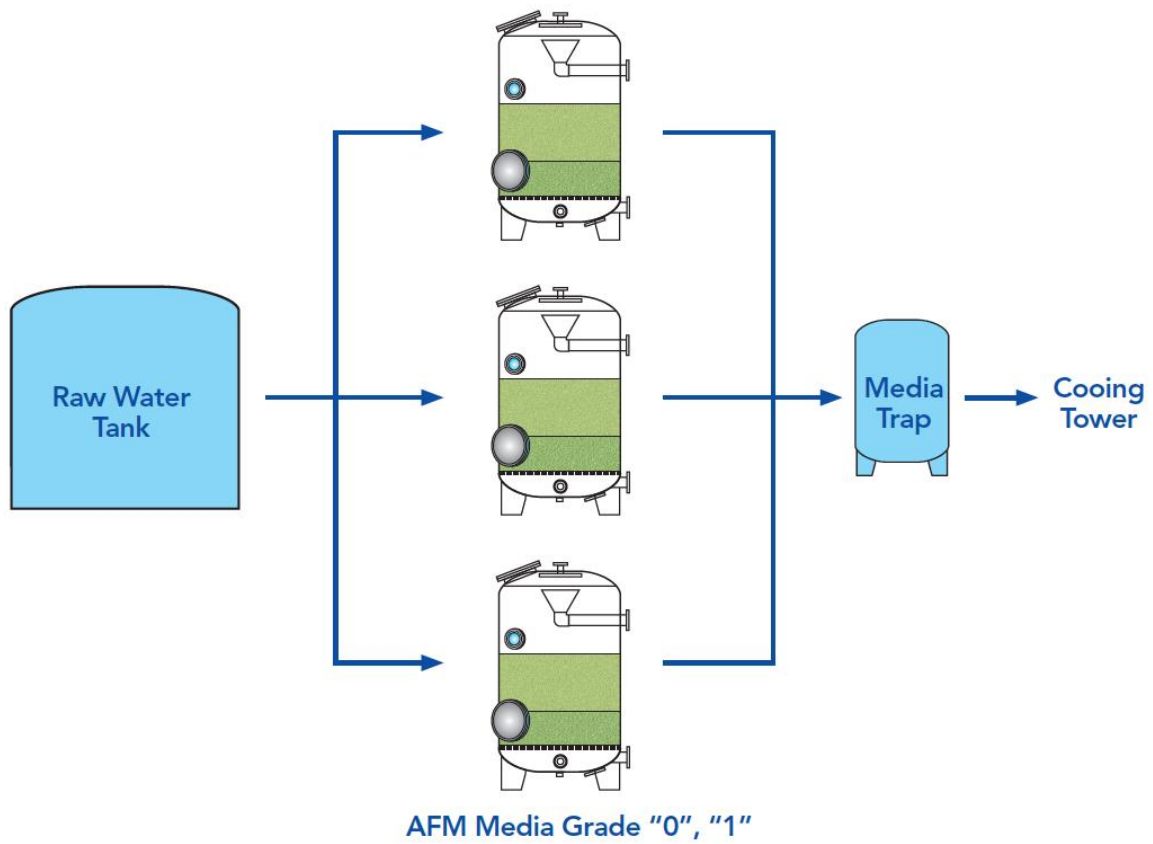
- ❖ Shortage of good make up water source availability.
- ❖ River water contained organic colloidal matter
- ❖ Cooling towers were treated with high concentration of biocides to minimize biological fouling
- ❖ Cooling towers were treated with high concentration of chlorine to minimize bacteria count.

Technical Solution:

- ❖ River water was filtered with AFM® type 1 and type 0, and then transferred as make up water to all 3 cooling towers.
- ❖ Consequently, biocide and chlorine dosing level was significantly reduced in all cooling towers.
- ❖ Colloidal and suspended matter levels were reduced by more than an order of magnitude, to significantly below allowed values.



Side photos:



Results:

Parameter	Required Value	Before treatment	After treatment
Turbidity (NTU)	<5	<10	<0.5
Ammonia-N, (PPM)	-	<3	<1
Bacteria Count (CFU/ml)	<1,000	>10,000	<100
Suspended Solids (PPM)	<2	<15	<0.2
CODT (PPM)	-	<30	<1