

Come On In, The Water's Fine

Situation

A large industrial business park was unable to provide appropriate cooling to its many buildings and tenants on a consistent basis. The parks cooling towers were located on ground level and were loaded with high levels of particulate contaminants. The parks chemical water treatment program was having a difficult time maintaining the balance in the tower as well. Energy costs were increasing as the heat transfer surfaces were loading up with more and more debris.

Action

AWS worked with the facilities manager and chemical water treatment provider to identify the size of particulate loading in the tower. Over 95% of the particulate was less than 5 microns. An automatic sub-micron sidestream filter was selected to remove particulate down to 0.5 microns. The unique characteristics of the filters high efficiency, small footprint, automatic operation, and minimal backwash requirements made this filter the right choice for the job.

Resolve

The filter was installed on their large ground level sump pond and began frequent backwashing on differential pressure. As the system settled in and began filtering the sump water, the backwashes began to spread out. After a couple of weeks in service the backwashes occurred only on the daily default. The pond had gone from a murky dirty mud puddle to a crystal clear swimming pool. A follow-up particle distribution study determined that 97% of the particulate that was 5 microns and less had been removed. In less than 12 months, the energy savings alone were enough to pay for the system.

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