

# Chemical Plant Improves Cooling Tower Capacity

## RESULTS

- Increased productivity
- More efficient cooling capacity
- Avoided overflows



## APPLICATION

Cooling tower basin

**Application Characteristics:** Water with occasional foam and debris

## CUSTOMER

Flexsys America L.P.

## CHALLENGE

Flexsys America L.P. was using a level switch to prevent overflowing of their cooling tower basin. They wanted to change to a continuous level indication for trending. They considered using capacitance and non-contacting radar but had reservations about both. They were hesitant to use capacitance because leaves and debris on the surface of the water might cling to the probe and impact the readings. In addition, cooling towers have a tendency to foam periodically, especially when water treatment companies add biocides to control bacteria. They thought the foam might hinder the performance of a non-contacting radar solution.

## SOLUTION

The Rosemount 3300 guided wave radar with a coaxial probe seemed to be the perfect fit. Since the coaxial design acts as a mini-stilling well with the sensing probe protected inside, it would help to isolate the active part of the probe from both debris and foam. In addition, mounting in this open-air system was simple and a telecom site license was not required. Installation of the 3300 was immediate and an accurate level measurement was provided within seconds of power being applied to the system. Even with the waves on the surface of the water, the measurement was well within  $\pm 1/2$  inch (12 mm) when compared to a tape measure. By having a continuous level measurement, Flexsys America was able to avoid overflows as well as increase the capacity and cooling productivity of the cooling tower system.



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**RESOURCES**

**Rosemount 3300**

<http://www.emersonprocess.com/rosemount/products/level/m3300.html>

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