Circular solution helps Nestlé save water and energy in Brazil

INSIGHT
As the world’s largest food and beverage company, Nestlé is committed to preserving resources for future generations by:

• Reducing water across its operations
• Using sustainably managed and renewable resources
• Achieving its zero-waste goal

A Nestlé milk production plant in southeastern Brazil challenged its suppliers to develop improvement projects that would deliver energy savings and reduce water consumption and CO₂ emissions. In particular, the plant was looking for an economically viable way to reuse the condensate organic water (COW) stream generated by the production of powdered milk. Nalco Water presented a plan that was approved, implemented and delivered sustainability savings within six months.

INNOVATION
Nalco Water conducted studies and prepared a water map to identify potential uses for COW water recovery. A work plan followed, which led to the recommendation that the COW water be used as cooling tower make-up.

The solution required a novel approach: creating and installing customized pre-treatment and heat recovery systems along with 3D TRASAR™ monitoring and control technology. This had a considerable impact on the plant, reducing costs as well as water and energy use, further supporting Nestlé’s ambitious sustainability goals.

TECHNOLOGY
• 3D TRASAR™ Technology for Cooling Water