ChemTreat
Case History

Eclipse™ Unit Solves Yogurt Plant Sanitation Concerns: Peracetic Acid and Quat Issues Resolved

BACKGROUND

The wastewater facility at a yogurt production plant experienced efficiency issues after weekend cleanings. The wastewater operators attributed this efficiency loss to the use of sanitation chemicals in production during the week and over CIP (clean-in-place) periods. The operators noticed both quaternary ammonium compounds (quat) and peracetic acid (PAA), but could not determine the main culprit.

SOLUTION

An Eclipse™ trial was scheduled to test for quat and PAA. Both methods would run for six weeks to determine which sanitizer was the main cause of the plant issues. The unit was initially setup to test for PAA because the maintenance manager viewed this as the most likely culprit of the wastewater issues experienced after cleanings. PAA had also been detected using the Hach Peracetic Acid method. The Eclipse™ unit observed a lower level of PAA throughout the trial with several large excursions considered deleterious to the bacteria. The unit was then converted to detect the quaternary ammonium compounds used at the facility using the ChemTreat quat test kit (part number QTK100).

RESULTS

The two-phase Eclipse™ trial results confirmed this facility saw significant levels of PAA and quat entering their biological wastewater treatment plant. The difference between the two trial periods was the quat levels throughout the six-week trial were significant but reasonably consistent with a free quat average of 2.5 ppm. In contrast, the PAA level was lower than what would be considered troublesome on a consistent basis but it had frequent high levels and unpredictable spikes that could considerably impact the beneficial bacterial.

The agreed-upon solution was to install a permanent Eclipse™ PAA unit and dose a constant feed of QK1000 to neutralize the average quat seen during the Eclipse™ trial period.

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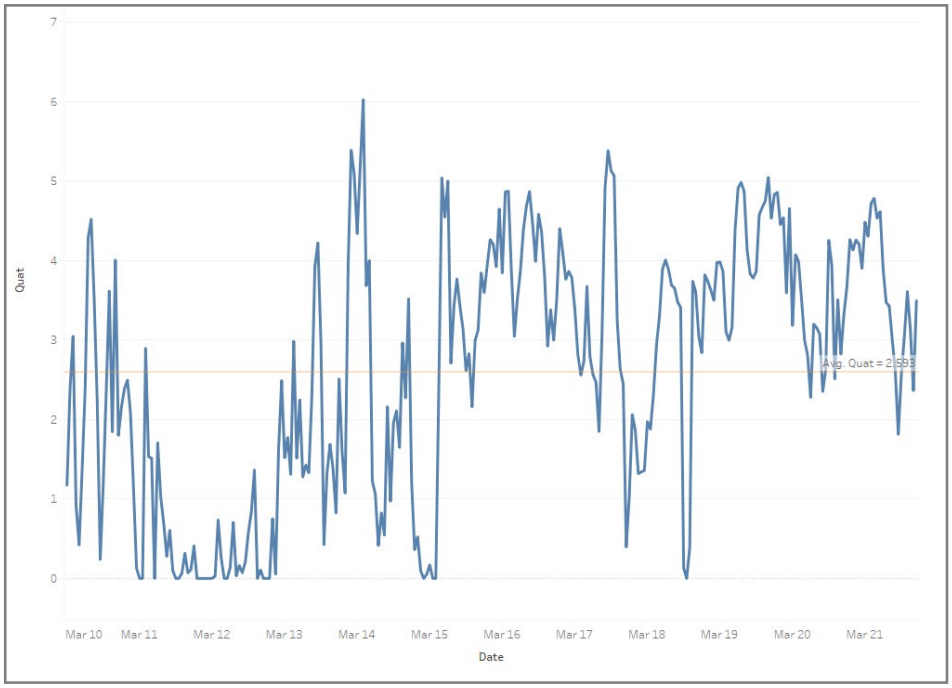
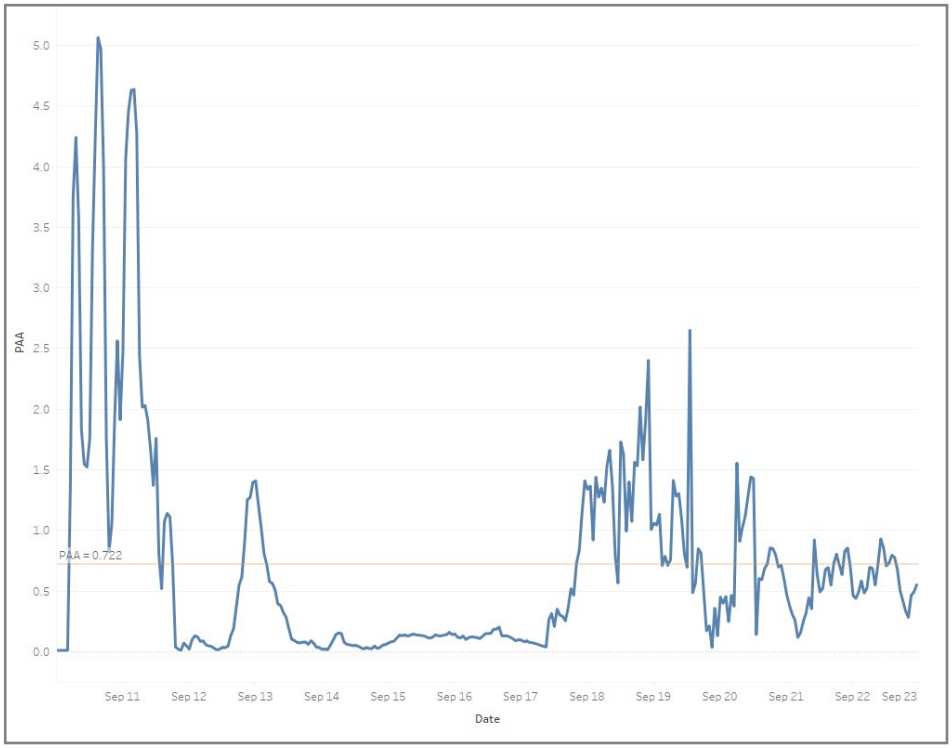
Quat - March 10-21



PAA - September 10-23



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