

UK CASE HISTORY 1: FOOD MANUFACTURER

System Description: A food manufacturer uses cooling water for the purpose of cooling a secondary closed loop supply via a heat exchanger for compressor cooling. The system consists of 2 cooling towers with a cooling capacity of 1,400Kw and a total system water volume of 7.5m³. A chemical treatment program was being used to treat the cooling water which consisted of biocides, antiscalent and corrosion inhibitor.

New Installation: A VRTX System consisting of a VRTX 20 unit (4.5m³/hr) and two (8m³/hr) Cross Zero Gravity Filtration units was installed in October 2005. Since installation an evaluation has been carried out by an independent Water Treatment Consultant.

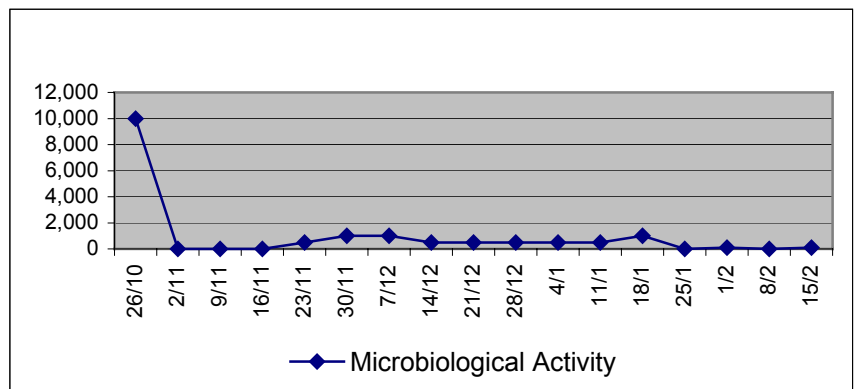


Results: All chemicals and biocides were turned off upon installation and the results have met all expectations. During the chemical treatment program the towers were operated at 2.0 cycles of concentration, with VRTX treatment this has been increased to 4.6. There is clear evidence that old scale is gradually being removed and no new scale is being formed. Mild steel test coupons and corrator readings show corrosion rates of less than 1.8 mpy which are well within industry standards for good corrosion control.

Total bacteria counts have remained below 1,000cfu/ml throughout the VRTX operation, well within the recognized HSE (L8) recommended standards and there has been no legionella detected.

It is estimated that annual water savings of 8400m³/annum (36%) will be achieved, this together with reduced effluent charges

(73%) and savings in chemicals and energy will yield £19,500 annual saving.



Conclusions: The independent consultant concluded at the completion of a 4 month ongoing evaluation that:

- “SCALE has been essentially prevented”
- “CORROSION has been controlled within conventionally accepted limits” and
- “BACTERIAL proliferation has been controlled well within L8 prescribed limits; and legionella has not been detected.”