CASE HISTORY

Chemical Processing



RECORDED BENEFITS

- Reduced fouling potential
- Improved product control
- Resistance to raw water guality variation

Variable Water Quality Issue Resolved for Specialist Plastic Producer

Performax[™] MX Cooling Water Treatment

Customer Challenge

A speciality high performance polymer producer was facing issues related to the make-up water fed to its reactor cooling system. Variation in feed water quality was impacting fouling and corrosion rates, raising concerns about loss of heat exchange efficiency and the effect on plant life.

Recommended Solution

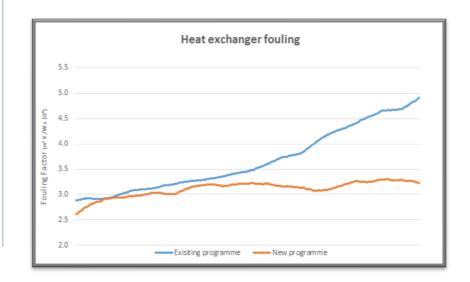
Solenis recommended the site change the existing deposit control programme to a product based on High Temperature Dispersant (HTD), a more robust product specifically designed to work under the high stress conditions seen in the reactor when it was fed with poor quality make-up.

Results Achieved

Immediately following the change to Solenis' Performax MX cooling water treatment, analysis confirmed that existing phosphate deposits were being removed from the system by the HTD polymer. After this initial clean-up, phosphate reserves returned to expected values and control was maintained within the recommended limits.

Heat exchanger fouling stabilised at an acceptable level following the introduction of the new product, contrasting with the situation seen previously where fouling increased over time resulting in loss of reactor heat transfer.

Even when lower quality water was supplied to the cooling system, scaling and fouling was controlled and carbon steel corrosion rates, both in terms of pitting and general corrosion, were maintained at an acceptable level.



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