CASE STUDY

Refinery Improves Corrosion Control and Reduces Operational Costs with FlexCorr™

Background

A large refinery on the Gulf Coast was feeding non-phosphorus corrosion inhibitors to protect their heat exchangers from corrosion.

Looking to improve cost performance while maintaining corrosion rates and continuing to comply with environmental discharge permit regulations, they decided to switch to ChemTreat's FlexCorr corrosion inhibitor treatment.

Solution

FlexCorr™

ChemTreat began implementing proprietary FlexCorr technology, which contains low phosphate and metal levels, to treat the mild steel heat exchangers at this plant.

The new product was fed based on PTSA control, and corrosion rates were monitored with mild steel coupons. After several months of treatment using FlexCorr technology, significant corrosion rate improvements were observed in heat exchangers with mild steel metallurgy.

Mild Steel Coupon Before FlexCorr Trial

Mild Steel Coupon After FlexCorr Trial

Results

FlexCorr significantly improved corrosion inhibition in the refinery's heat exchangers at a lower cost than the previous treatment program. Containing less phosphorus and zinc, FlexCorr also helped the facility reduce the discharge of regulated chemicals into local waterways. Thanks to the non-fouling nature* of this technology, the refinery saw cleaner heat exchanger surfaces and achieved historically low iron and copper levels.

After a three-month trial, the facility decided to permanently switch to FlexCorr for heat exchanger corrosion treatment.

**under standard operating conditions*

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