

# Gulf Coast Chemical Plant Minimizes Costly Exchanger Cleaning Costs with FlexPro®

*Cooling Water Innovation and Technology*

## Background

Historically, the cooling systems at a Gulf Coast chemical plant were treated with traditional phosphate/polymer technology. While the treatment program provided good corrosion control, calcium phosphate deposition occurred in some of the hot plate and frame heat exchangers. These system components operate at low-flow conditions, creating further treatment challenges.

## Solution

The cooling water treatment program was converted to phosphate-free FlexPro® technology, which has provided superior heat exchanger cleanliness while simultaneously maintaining corrosion control. A new process unit at the plant was commissioned on FlexPro® cooling water technology.



*Plate and Frame Heat Exchanger Cooling Water Side with FlexPro® Treatment*

## Results

Since switching to FlexPro®, the plant systems have not experienced any fouling or deposition, and corrosion control has remained very good. The hot, low-flow plate and frame exchangers exhibited no deposition during a planned outage following two years of operation with FlexPro®. The new process unit heat exchangers also exhibited no deposition during a planned outage following two years of FlexPro® use.



*New Process Unit Heat Exchanger Cooling Water Side with FlexPro® Treatment*



*Before and after cleaning photos of mild steel and stainless steel corrosion coupons, FlexPro® Treatment*