



Reference Project

Clarifying Freshwater on the
Sabine River

CarboNet ●●

An operator looked for modern alternatives as a commodity chemical became less reliably available and economical.

Background: Companies that rely on freshwater clarification for reverse osmosis, ion exchange, process water, feedwater, or cooling towers are concerned about the shortages and increasing cost of polyDADMAC. It's becoming less reliably available and economical, driving interest in other options that allow operators to reach their KPIs.

The problem: On top of increasing supply challenges with polyDADMAC, a refinery on the Sabine River has been unable to maintain its turbidity KPI to <5 NTU making it necessary to constantly supervise the daily fluctuations.

↳ Though they use a sludge blanket clarifier system, it's been difficult maintaining the sludge blanket itself to mitigate carry over.

The solution: We tested the performance of to help the refinery fully transition from relying on polyDADMAC.

The results: Tests consistently result in better clarity with lower NTUs over a wider range of dosing. We saw faster flocculation with lower dosing than commodity dry or emulsion polymers due to SimpleFloc's pre-made-down state.

The bottom line: The switch from polyDADMAC to SimpleFloc + ACH created better KPIs while reducing manpower, the chance of spills and HS&E incidents, and emissions.

Footnote: SimpleFloc not only improved clarification, but delivered additional benefits:

- Crews were more efficient as they didn't have to babysit make-down
- Significantly less chemicals were introduced into the operating envelope, ensuring no permits were breached
- Crews enjoyed safer working conditions not having to deal with dry make-down dust or slips from emulsion slop

RESULTS

- Removed need for polyDADMAC
- Reduced chemical costs by 50%
- Boosted crew efficiency
- Reduced HS&E incidents

CarboNet: As freshwater becomes increasingly scarce and regulated, companies from energy and mining to food and beauty turn to CarboNet to reduce, recycle, and renew the water they need to compete.