CASE HISTORY

Pulp Mill

RECORDED BENEFITS

- Solenis' feed rate averaged 0.5 lb./ton (25% chemical feed reduction) less than competitor
- Solenis heater life averaged 200+ days while competitor averaged ~130 days resulting in a 54% increase in heater life
- There was minimal scaling on the Solenis treated top separator screen compared to >50% pluggage on the competitively treated screen.

Digester Scale Control Program Provides Superior Performance

Infinity™ SL4335 Scale Inhibitor

Improvement Opportunity

A Northern Bleached Softwood Kraft (NBSK) mill in Western Canada wanted to optimize its digester scale control program to help them maintain an 18-month outage schedule, minimize heater acid washes, and control scale build-up in the digester and separator screen. The mill operates two identical digesters both fed by the same chip supply and liquor production cycle. They chose to run one digester using a product supplied by their long standing incumbent supplier versus Solenis' Infinity SL4335 on the other digester for a complete 18-month cycle.

Recommended Solution

Solenis recommended Infinity SL4335 copolymer, crystal modification technology due to both its price position and it superior performance in similar applications. We also monitored the process for key variables that would increase or decrease scaling potential and made feed rate adjustments based on data driven decisions.

Results Achieved

Both digesters ran for a full 18-month cycle from outage to outage with typical operational issues. The incumbent program dosage was increased during the second half of the trial period to make it through the outage cycle. The Infinity SL4335 treated digester ran at an application rate that was 25% lower than the competitive product. Even at that lower feed rate, the heater life on the Infinity SL4335 treated digester 54% longer than on the competitively treated digester. Additionally, as the pictures below demonstrate, the scale build-up between the two digesters was significantly different.

Competitor

Solenis

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