

Hydrate Curve Algorithm Prevents Plant Shutdowns

Application Sheet #29

CUSTOMER
VALUE

SITUATION

- An operator in Southern Alberta injects methanol to prevent hydrate buildups from blocking a critical production line.
- A blocked line results in a hazardous plant shutdown, and a daily loss in production of approximately \$100,000.
- The operator would typically experience two blockages per year, known to be a result of incorrect injection rates and unreliable pumps.

SOLUTION

- The operator replaced an existing pump with a Sirius Fusion™ injection system.
- By connecting the Sirius Fusion™ controller to the existing plant SCADA system, the flow rate of methanol was fully automated to follow a known hydrate curve.
- With fully automated electronic control, the pump was able to cover the full range of required flow rates with no need for on-site mechanical adjustments.
- Sirius' smart sight glass (InSight) was installed to provide flow verification, tank level, and closed-loop flow rate feedback control for improved injection rate accuracy.
- For added reliability, a second, redundant pump was installed which automatically injects in the event of a failure.

RESULTS

- The Sirius Fusion injection system reduced production line blockages and prevented two plant shutdowns in a single year.
- Total savings in the first year exceeded \$100,000.

\$100,000+ annual savings by preventing unnecessary plant shutdowns



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