EFFICIENT METHANOL REGULATION WITH DC3

OBJECTIVE

Assess the effectiveness of DC3 technology in regulating methanol pump operations in accordance with ambient temperatures.

BACKGROUND

Optimizing methanol injection processes is pivotal to the success of any oilfield operation. Both over-injection and under-injection can culminate in operational inefficiencies and increased expenses. DC3 Technology offers a novel methodology: verifiably adjusting methanol injections based on ambient temperatures, aiming to optimize efficiency and reduce costs.

IMPLEMENTATION

A leading Producer initiated a week-long pilot in the Carlsbad Area to evaluate the methanol regulation prowess of DC3. DC3's Mirador was deployed with a set goal: maintain a consistent injection rate of 4 qts/day, but cease injection when ambient temperatures rose above 70°F.

WEEK 1 PERFORMANCE INSIGHTS:

- Daily injections by the system varied from 0.05 qts to 0.26 qts.
- A cumulative 1.67 qts was injected exclusively when the temperature stayed below 70°F, preventing an excessive injection of 34.33 qts of methanol.

COMPARATIVE ANALYSIS:

Dynamic Regulation vs. Conventional 'ON' Mode

High Temp (HT) Shutoff Setpoint	60.0 F
HT to HT Minus 10F	32 qts/day
HT Minus 10F to HT Minus 20F	32 qts/day
HT Minus 20F to HT Minus 30F	42 qts/day
HT Minus 30F to HT Minus 40F	52 qts/day
HT Minus 40F to HT Minus 50F	62 qts/day
HT Minus 50F+	72 qts/day

When juxtaposed with conventional systems that perpetually operate in 'ON' mode (particularly during colder seasons), the dynamic regulation of DC3 showcased notable cost-effectiveness. Over a two week period, the system's injection volumes fluctuated between 22.4 qts to 36.6 qts within a 24-hour window. In stark contrast, a continually active 'ON' system would have injected considerably more at temperatures of 70°F or lower, with volumes ranging from 42 to 48 qts. The total methanol volume saved over this 14-day period amounted to a remarkable 277.1 qts.

CONCLUSION

Methanol optimization saves money and reduces downtime with the use of DC3's technology. Whether you chose to optimize your methanol injection from process temperature, ambient temperature or custom algorithms; DC3 offers verifiable proof that your methanol program is providing value.

If you're interested in learning more or discussing how these solutions might fit into your methanol management strategy, our team is here to help.

Contact DC3 today for more information about products and services.

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