RPA-338 Helps Refiners Reduce Fouling and Reactor Bed Pressure Drops in Hydrodesulfurization (HDS) Units

THROUGHPUT RESTORED IN HOURS TO EXTEND RUN LENGTHS UNTIL TURNAROUND FOR REACTOR SKIMMING OR CATALYST REPLACEMENT

GULF COAST, USA

RESULTS

Through superior service and application expertise, Athlon has been able to provide a rapid response to several refiners to reduce pressure drops and increase charge in two to four hours or less without downtime.

The graph below demonstrates the application of RPA-338 within a Gulf Coast refiners' diesel hydrotreater (DHT) reactor.

With the injection of RPA-338, pressure drop was reduced immediately and over a few hours charge and pressure drop returned to normal operating conditions.

CHALLENGE

Multiple refiners have approached Athlon, a Halliburton Service, for a solution to address fixed-bed reactor pressure drops due to FeS fouling deposits in the hydrodesulfurization (HDS) units of hydrotreaters.

The deposits increase pressure drops, which dramatically reduces daily throughput and revenue. A solution to quickly correct and mitigate against future drops is needed to help ensure refiners meet daily production objectives in a cost-effective manner.

SOLUTION

RPA-338, a hydrotreater catalyst bed antifoulant, is designed to extend run lengths on catalyst beds experiencing FeS fouling by agglomerating the FeS to create high and low concentration areas so throughput and efficiency can be managed.

Its effectiveness allows refiners to meet production objectives until turnaround, when reactor skimming or catalyst replacement can occur.

Close coordination between Athlon and refinery operations is necessary to deliver, apply and support this specialty chemistry for a rapid solution in hydrotreater reactors.

All refineries have similar challenges but each has different characteristics that require application expertise. For example, injection of RPA-338, which creates a low pH environment, at high-pressure requires application expertise to monitor and optimize the product's effectiveness.

Gulf Coast DHT Reactor Treat

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