

Emerson Lifecycle Services Use FlowScanner™ and AMS™ Suite: Intelligent Device Manager Technology to Extend Period Between Refinery's Planned Turnarounds

RESULTS

- Turnaround window extended from one to three years through improved predictive technologies
- Planned turnaround completed on-time by using FlowScanner to service 176 valves in 21 days
- Increased plant productivity and reduced maintenance costs with use of AMS Device Manager



APPLICATION

Specialty crude oil refinery

CUSTOMER

Ergon — Vicksburg, Mississippi

CHALLENGE

The refinery conducted a routine annual turnaround, which grew larger each year. To reduce downtime and maximize productivity, it wanted to extend the window between planned turnarounds from one year to three years. The size of the planned turnaround required a coordinated team who could efficiently complete the job with minimal downtime, assist the plant in extending its turnaround window, and provide a single-invoice solution.

This specialty refinery in Vicksburg, Mississippi, processes wax-free naphthenic crude oils to produce distinctive specialty petroleum and asphalt products for niche markets worldwide. The facility has developed a special processing technology that enables them to refine high-acid, high-sulfur crude oils that many of their competitors are not be able to process.

"We worked with the customer to tweak the plan until they were completely satisfied with it."

Cary Stanbury

Emerson Lifecycle Services Site Supervisor

SOLUTION

Emerson Lifecycle Services supported supported the planned turnaround for the refinery. The scope of the turnaround was three times the scale of previous turnaround efforts.

In order to complete the extensive work on schedule, Emerson Lifecycle Services and refinery personnel met several times to develop a detailed turnaround plan. "We worked with the customer to tweak the plan until they were completely satisfied with it," said Cary Stansbury, the Emerson Lifecycle Services site supervisor for the turnaround.

Using the FlowScanner 6000, Emerson Lifecycle Services technicians were able to quickly and effectively identify internal and external valve leaks. They repaired a total of 138 valves; 87 valves were able to be repaired on-site in Emerson Lifecycle Services Mobile Service Trailer. Only 38 valves needed to be completely replaced with new valves.

To improve the refinery's maintenance efficiency and to help extend its time between turnarounds, Emerson Lifecycle Services connected 15 valves (via Fisher™ digital valve controllers) to AMS Device Manager. AMS Device Manager provides access to the valves' predictive diagnostics, allowing the refinery to monitor valve performance online and predict a valve's continued performance or failure. With this technology, the refinery increased its productivity by detecting and diagnosing potential equipment problems before they impact the process.

Emerson Lifecycle Services helped the refinery to complete its extensive turnaround on-time and provided a foundation of predictive technology to improve the refinery's performance and extend the time between planned turnarounds.

FIELDVUE™ units combined with AMS Device Manager and ValveLink™ online diagnostic capability enabled the refinery to increase its productivity by detecting and diagnosing potential equipment problems before they impacted the process.

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