

Ethylene Cracker Feed Saturator Cleaning

THE CHALLENGE

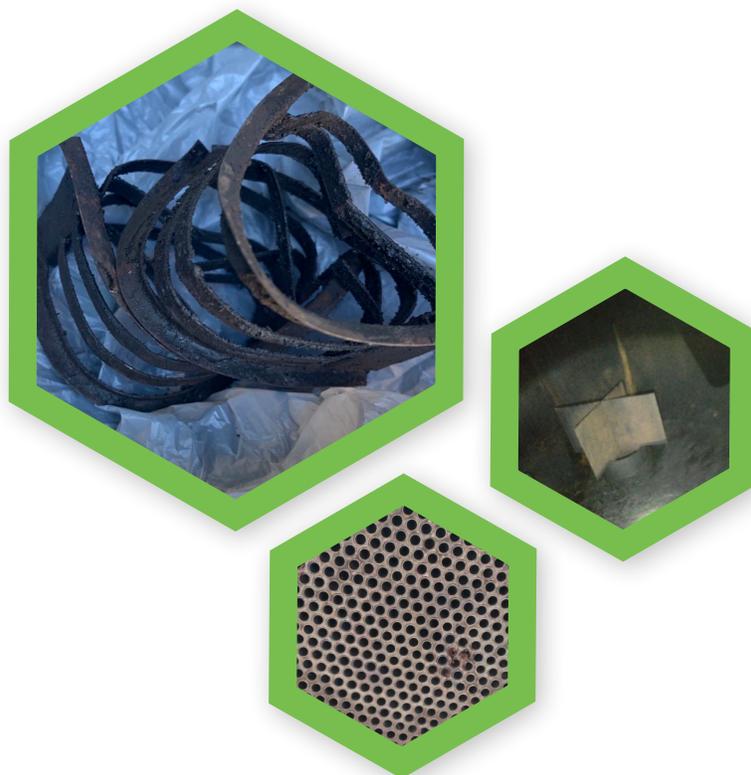
The client was experiencing high differential pressure (D/P) across the packed section of the ethane feed saturator, as well as a loss in efficiency with their downstream heat exchangers. Multiple operational issues were accredited to design problems as the unit was only online for about two years. The fouling material was a combination of polymers, heavy hydrocarbon, and inorganic solids. Previous sample analysis indicated the polymers were of the styrene and butadiene nature. In the past, the client had struggled with degassing this equipment due to the content of the solids; it was considered one of their most difficult vessels to clean. They traditionally needed to go inside to change the packed sections out. The client desired a decrease in the time normally required to clear the tower and a safer environment for entry.

THE SOLUTION

QuikTurn® was injected into the client's feed saturator because it has had great previous success with heavy hydrocarbon and some polymers, especially those with the styrene nature. QuikTurn® was also injected into a process water stripper tower with large amounts of benzene. Upon further inspection of the equipment, effluent management was provided along with a chemical clean.

THE RESULTS

The client reported this was the cleanest they had ever seen the equipment. The client was impressed not only with the cleanliness of the equipment but also the overall timeline, condition of the mechanical rental equipment, and support for installation. The Refined Technologies team worked through challenging timelines (delivering a finished product in hours instead of several days) and conditions.



THE CHEMISTRY

QuikTurn® is a chemistry designed to expedite confined space entry and clean vessels. It is a hydrocarbon-based formula that is easy to apply, safe for the environment, exhibits excellent metallurgy properties, and will not cause problems with chemical or refinery products and waste treatment facilities. QuikTurn® is one of many chemistries used by Refined Technologies to improve process operations while lowering total costs.