

QuikTurn®

Strategic Chemistry®

EMERGENCY SHUTDOWN - COKER MAIN FRACTIONATOR

THE CHALLENGE

Is your unit prepared to handle an emergency shutdown? Is there a plan in place for cleaning each process vessel and gaining rapid permitted entry? If so, have you chosen a proven and effective chemical cleaning technology?

Having answers to these questions can save your unit hundreds of thousands of dollars in unnecessary downtime. It is important to carefully choose the right cleaning chemistry to effectively dissolve the target contaminant in any process vessel or exchanger. In the case of removing heavy hydrocarbons (i.e. resid, slurry, bitumen, etc.) it is critical to apply a pure-organic product with high solvency power, measured by a Kauri-Butanol (KB) value >100. Cleaning products that are water-based do not have the solvency strength required to completely emulsify asphaltenes and heavy oil contaminants.

To illustrate this point, consider the following case study completed recently at a major Gulf States refinery.

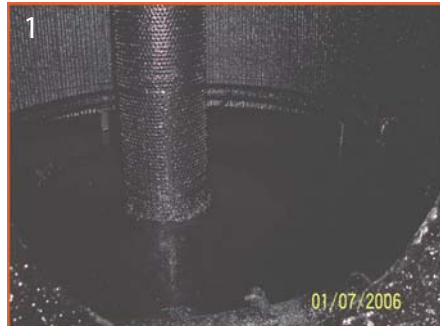
TWO DIFFERENT SOLUTIONS

The following photos were taken in the bottom of a Coker Main Fractionator after two different cleaning technologies were applied:

1. Common industry water-based product
2. QuikTurn – pure-organic formulation (KB Value > 130).

The difference in cleanliness and time savings between the two technologies is remarkable.

The refinery suspected tray damage in their Coker Main Fractionator because the HCGO tray wasn't holding a level. The decision was made to take the column down for chemical cleaning and inspection of the trays.



THE RESULTS

Photo 1 was taken after they circulated a very common industry water-based product, intending to clean and degas the tower. After the cleaning, the trays were still too covered with heavy oil to allow for a thorough inspection and a significant crack in the HCGO tray was missed.

They brought the tower back online, still experiencing the same problem. After running for an additional 2 weeks and evaluating the margin loss they decided to come back down again and clean the column using the patented QuikTurn / Vaporganic process.

Photo 2 was taken immediately upon entry, following the QuikTurn application. As evidenced in the photo, only dry coke remained....no heavy oil, LEL or H2S.

This refinery remarked that the tower was the cleanest they have ever seen it, and they were able to simply vacuum out the loose coke. Given the bare-metal cleanliness, the crack in the tray was easily identified and quickly repaired.



THE QUIKTURN ADVANTAGE

Refineries are using Refined Technologies' products and services to gain a strategic advantage in the marketplace. This application is another example of how refineries are restoring the operating performance of their equipment while lessening the burden on maintenance crews.

In your daily operations meetings, we encourage you to consider Strategic Chemistry®: the timely use of chemistry and planning, engineered to improve operating margins.



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