



FLUIDIZED CATALYTIC CRACKING UNIT REVAMP

CLIENT - El Dorado Refinery
LOCATION - El Dorado, KS
COMPLETED - November 2014

DESCRIPTION

Matrix Service's Gulf Coast Turnaround Division executed a major revamp on the Fluidized Catalytic Cracking Unit (FCCU), which included replacement of a significant portion of the reactor and has sole responsibility for the FCCU structure. The reactor's top head and upper 25 feet of shell were replaced along with the internal plenum, primary and secondary cyclones with inlet nozzle, crossover duct, and dip legs. The replacement shell and cyclones were assembled with the refractory installed and thermally cured on a jig stand during the pre-turnaround. This shortened the reactor turnaround schedule removing it from the overall shutdown critical path. During the turnaround, the reactor overhead line was brought down to grade, refractory repaired, and then reinstalled toward the completion of the work.

PRINCIPAL FEATURES

- Complete replacement of the 52" (SS) Expander Inlet Line (EIL) from the third stage separator
- EIL hanger system
- Modifications to the EIL support structure
- Regenerator internals repair
- Capital piping demo and replacement
- Removal and reinstallation of 28 exchanger bundles
- Cleaning in place of 4 exchangers and 21 fin-fans
- Weld buildup in several vessels
- Significant repairs to the economizer
- Vessel engineering for the new reactor section
- All construction, engineering, and lift planning for the project

FOR MORE INFORMATION:

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