SAFE COKER – PROFITABLE COKER
Design - 18 KTPD Capacity, Highest – 20.9 KTPD Throughput

Three Blocks (Six Coke Drums) with common Blowdown & CCD

Double Fired Heaters with Pigging, OLS & SAD facility

Heater Run Lengths – 120-150 Days

Feed – Mix VR, FCC Slurry, Mangala VR, Refinery slop, Refinery Sludge

Low Recycle: 5-7 Wt%

DELTA valves for coke drum un-heading

Interlocks for all MOV’s of coke drum & coke cutting system

ZERO failures due to corrosion

Maximum Mangla VR processing in any refinery

ZERO Slop unit
SAFETY CULTURE- ZERO Incidents

- ‘Safe at Risk’ observations/audits by Senior Personnel from other units
- Work permit procedure audits & compliance
- SOP / SMP / Risk assessment for all activities – Routine and Non-Routine
- Tool box talks to contractor staff before any activity
- Weekly joint walk-through audits
- Safety refresher training at frequent intervals
- Operator Training based on GAP analysis / personal evaluation
- Multi-Disciplinary approval for High Risk jobs – Hot Tapping, Online Sealing
- All Modifications (Temporary / Permanent / Software / Hardware) through Management of Change (MOC) procedure
- Learning from incidents (LFI) knowledge sharing amongst all groups
- Training session before shutdown for contractors / employees
- Incident Investigation for all incidents
- Root cause analysis (RCA) for all failures
SAFETY CULTURE- Improved Reliability

- Built in-house software for parameters close monitoring
- Systematic and Methodical Approach by Plant Operations
- Shift wise Pre-Programmed tasks
- Historian / Records of all past data
- Proactive approach
- Avoid surprises - Improved Reliability
- Leak detection and rectification programme (LDAR)
- Multi discipline Grating check programme
- Conveyor belt safety – Pull cords, Field Horns
- Dead ends/zones audit & removal
- Random positive material identification programme (PMI)
SAFETY CULTURE - Improved Reliability

- Conduction of Process Mock drills with different emergency scenarios.
- Share LFIs (Learning from Incidents at different refineries) with operation crew.
- Prepared and maintain the Aspect Impact Risk Register for DCU.
- Provision of vibration probe at Coke drum to monitor cutting operation.
- Implementation of 5S in the plant as well as O & M.
- Integrated Hydraulic cutting system.
- Flowserve has supplied first time enclosure facility to safeguard the cutting tool at the Top Un Heading Device as special added safety feature.
- Done CIA inspection of Coke drum to improve reliability.
CHALLENGES AHEAD

- Sustaining safety record during unit Revamp
- Achieving ‘ZERO HOT SPOTS’ operation
- ZERO conveyor system breakdown
- Rigorous coke drums stress monitoring
- Scope for Advance Process Control.
- Early event detection programme (EED)
Thank You

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