Coking Fines Handling System
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Problem

- Production of Significant Quantities of Coking Fines
- Coking Fines Deposit in the Maze, the Sump, and the Jetting Water Tank
- Coking Fines Pumped Through Sump and Jetting Water Pump(s) and associated valves
- Resulting in Erosion, Wear and High Maintenance Costs

Handling System - Goals

- Minimize Coking Fines in the Maze, Sump and Jetting Water Tank
- Minimize Coking Fines Pumped Through Sump Pump(s), Jetting Water Pump(s) and Valves
- Increase Residence Time in the Maze and the Jetting Water Tank
- Minimize Operator Time to Manage Coking Fines
Economic Benefits

- System Maintenance
  Reduced - Pumps/Valves/ Piping/Control and Measurement Equipment

- Existing Coking Fines Removal Processes

The Solution - Merpro Tore® Online Vessel Desanders (OVD)
Development of Sand Removal Technologies

SHOVEL AND BUCKET

SAND JETTING

TORE®:OVD

TORE®

Fluidizes and Transports Solids

- Localized area of influence
- Low energy
- High efficiency
TORE® Demonstration

Tangential feed to swirl chamber
≈ 18 gpm @ 20 psi over vessel pressure

Vortex lifts & fluidizes solids
1" Tore – 80 -100 ft³ / hr

Feed Water Header

Slurry Discharge Piping
Jetting Systems
- Re-entains Coking Fines
TORE® vs. Jetting

Liquid Surface Observed While Jetting

Liquid Surface While Operating Merpro’s Tore®OVD

TORE®OVD

- No Disturbance of Maze or Jetting Water Tank
- Tank Liquid Level Not Affected
- Tore® may be Fully Submerged in Solids
- Efficient and Cost Effective Handling System
TORE® OVD

Maintenance / Reliability

- Effectively Removes Coking Fines
- Robust and Easy to Operate
- Proven Technology
Best Available Technology -
Incorporated into FMC's Tordis Subsea Processing Module
Questions???

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