Shift Handover Report

Refinery: Sandy Point Refinery (150,000 bpd capacity)

Date: September 18, 2024

From: Maxine Hebert (Day Shift Operator)

To: Steve Perry (Night Shift Operator)

1. General Operations Status:

- All units now operating at normal capacity, including the Distillation Unit

- No safety incidents reported during repair and restart

- Environmental compliance maintained throughout

2. Production Overview:

- Crude throughput: 148,000 bpd (ramped up after repairs)

- Gasoline production: 71,000 bpd

- Diesel production: 51,000 bpd

- Jet fuel production: 15,500 bpd

- Other products: Within normal ranges

3. Distillation Unit Issue Resolution:

The pressure drop issue in the main atmospheric distillation column (ADU-101) that you reported this morning has been successfully resolved. Here's a detailed account of the actions taken during my shift:

a) Inspection Results:

- Visual inspection revealed damage to three trays (stages 8, 9, and 10) in the upper section of the column

- Corrosion was evident on these trays, with approximately 30% of the active area compromised

b) Repair Actions:

- Column was shut down and degassed following safety protocols

- Damaged trays were removed and replaced with new stainless steel trays with improved corrosion resistance

- All bolts and fasteners in the upper section were inspected and replaced where necessary

- Column walls were inspected for signs of corrosion; minor patches were treated with protective coating

c) Root Cause Analysis:

- Investigation revealed higher than normal chloride content in the crude feed over the past month

- Crude desalter efficiency was found to be suboptimal, allowing corrosive components to enter the column

d) Preventive Measures:

- Implemented more frequent testing of crude feed for corrosive components

- Adjusted desalter operating parameters to improve efficiency

- Scheduled more frequent inspections of upper column trays

e) Start-up and Stabilization:

- Column was carefully restarted at 0900 hours

- Gradual increase in feed rate while closely monitoring all parameters

- Full operational capacity achieved at 1400 hours

4. Areas Requiring Special Attention During Night Shift:

a) Column Pressure Profile:

- Monitor pressure drop across the column closely; should remain stable at 0.4 bar

- Any fluctuations beyond ±0.05 bar should be reported immediately

b) Temperature Profile:

- Pay extra attention to temperature readings on stages 7-11

- Target temperatures: Stage 7: 165°C, Stage 8: 158°C, Stage 9: 151°C, Stage 10: 144°C, Stage 11: 137°C

- Deviations of more than 3°C should be investigated

c) Reflux Flow:

- Maintain reflux ratio at 1.2; adjust as needed to maintain top temperature

- Monitor reflux pump performance; any unusual vibrations or noise should be reported

d) Product Draw-offs:

- Closely monitor all product draw-off rates and qualities, especially for the light naphtha and kerosene cuts

- Any significant changes in API gravity or flash point should be communicated to the lab for immediate testing

e) Desalter Performance:

- Monitor desalter efficiency; maintain pH of effluent water between 6.5-7.5

- Check and record brine conductivity every 2 hours

5. Other Noteworthy Items:

- Crude tank T-101 receiving new shipment at 2200 hours; monitor levels and heating coils

- FCC catalyst addition completed; regenerator differential pressure now within normal range

- SRU catalyst bed temperature has normalized after adjustment of air flow

6. Ongoing Maintenance:

- Scheduled cleaning of heat exchanger E-205 postponed to next week due to column repair priority

7. Laboratory Results:

- All product qualities now within specification after column repair

- New crude assay shows lower chloride content; continue monitoring

8. Safety Reminders:

- Increased frequency of H2S monitoring near ADU-101 for the next 48 hours as a precaution

- Ensure all operators are briefed on the recent repairs and potential signs of any recurring issues

9. Shift KPIs:

- Energy consumption: On target

- Flaring: Minimal during restart, now within permitted limits

- Product giveaway: 0.3% (better than average due to improved column performance)

Please acknowledge receipt of this handover. Given the recent major repair, maintain heightened vigilance on the distillation unit throughout your shift. Don't hesitate to contact me if you notice any anomalies or require any clarification.

Signed: Maxine Hebert (Day Shift Operator)

Time: 1900 hours