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Tech. Ser. Lab.

JAN 21 1982

Interoffice Communication

To Mr. J. T. Zeien - Houston

From D. F. Myers - Lake Charles

Date January 15, 1982

Subject PROGRESS REPORT - PERIOD ENDING JANUARY 14, 1982
LAKE CHARLES REFINERY

GFE _____
JHR _____
PJR _____
TEC _____
DGO _____
RSJ _____
FILE _____

Crude

Crude charge data are as follows. Crude inventory is finally at comfortable levels. The 800 MB delivery of Es Sider crude has been unloaded at Clifton Ridge. Currently, a 300 MB delivery of this crude is scheduled to the refinery January 15. Deliveries of Es Sider crude will be kept to a minimum in order to preserve the maximum volume of crude available for blending with Humber gas oil. The first Humber gas oil ship is now scheduled to arrive on the Calcasieu bar January 16. Approximately 30 MB will be lightered onto a barge before the ship can navigate the ship channel.

	Total Bbls. Thru Put For January	Average Chg. Rate Past Week - BPD
No. 2 Crude Unit	565,716	43,529
No. 3 Crude Unit	803,502	62,819
Totals	1,369,218	106,348

Average/day this month totalled 105,324 BPCD.

Operations Summary

Cold weather invaded the area this past weekend. Record low temperatures were established with the low early Monday morning around 15°F. All units were struggling to operate with considerable instrument freeze ups occurring. Both Reformers, EFS-HDS Units, and the Acid Plant had to be shut down due to cold weather problems.

The No. 3 Crude Unit was upset by the cold weather, but survived with no loss of production. The HDS Units were shut down early Monday morning due to a lack of hydrogen from the Reformers. Feed was charged back to the units late Monday evening with no further problems.

The No. 2 Crude Unit operation was also erratic during the early hours of Monday morning, but did stay on-stream charging 42 MBPD of crude.

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The FCC charge rate was increased to 30 MBPD last weekend when the work was completed on the Cat Poly Unit. Gas oil apparent conversion has averaged 79% with an 83% efficiency. Catalyst addition rates were 2.6 TPD at a loss of 0.8 TPD. Gasoline octane averaged 92.7 RONC at a riser temperature of 990°F.

The Cat Poly Unit started up over the last weekend following completion of repairs to the stabilizer reboiler. Unit operation has been steady since that time.

Casinghead Unit propane has been corrosive all week. The problem has been pinpointed to free sulfur in the propane. We are at a loss to explain the free sulfur formation, but suspect it relates to the DEA system.

The Thermal Cracker suffered very few upsets during the cold weather and continues to operate at maximum charge rates.

Feed to the Alky Unit has been reduced to minimum to provide B-B's for gasoline blending. The icy roads delayed truck shipments of normal butane requiring the B-B's for gasoline blending.

The cold weather dealt a shutdown to the Sulfuric Acid Plant when the well water feed line to the de-humidifying tower froze solid. The unit was down until Wednesday morning.

The Coker survived the freezing weather until Thursday night when air lines freezing up in the structure delayed the heading and unheading of the coke drum. Attempts to put the unit on circulation were unsuccessful due to improper operation of the switch valve motor and freeze ups of the gas oil line from storage necessary to maintain levels in fractionating tower. The unit is now back on-stream and lining out. Total production time lost was 27-hours.

The Calciner operated satisfactorily through the cold weather and is currently charging 450 TPD of green coke.

Both Reformers and the naphtha HDS were shut down early Monday morning when critical instruments on the unit froze up. The units were back on line by that afternoon and are currently operating satisfactorily, charging 15 MBPD to the No. 2 Unit and 6 MBPD to the number one.

Power Plant also experienced problems during the cold weather. The 150 psig steam controller froze and allowed the pressure to drop way below normal operating levels. This in turn backed some oil into the steam system and contaminated the condensate.

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The boiler feedwater supply became critically low because of the extra demands and the loss of condensate which ultimately required injecting some raw water into the boiler feedwater surge drums for a short period of time. The operations at the Power Plant have now returned to near normal conditions.

Offsites & Inventories

The Dock personnel handled one ship and thirteen barges this week.

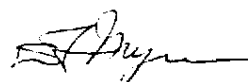
Total gasoline inventory is 607 MB on the way down from a peak inventory earlier in the week. If the shipping schedule is met over the next few days, the inventory will continue to fall.

Total distillate inventory is 548 MB with 225 MB of this product fungible kerosene. Problems developed with corrosive heating oil *HLS* late last week requiring shut down of local and pipeline shipments. Several tanks have been successfully treated with caustic and on-spec product is available. *Local Sales due 5-6 days*

Acid shipments were curtailed earlier in the week due to frozen safety shower lines. The loading has now resumed following repairs to the water lines and the onslaught of warmer weather. No problems were encountered in containment of the product, but some of our customers are distraught.

Shipments to the Bayou were disrupted when a heavy blend tank was contaminated with heavy oils during the upsets earlier in the week. This presented problems because heavy blend inventory is low at the Bayou. Changes in the schedule were made to prevent any outages at the Bayou with more light blend being delivered earlier than scheduled.

No. 6 Fuel Oil scheduling and blending has been quite active this past week. Chemicals and PPG have been burning oil and are requesting deliveries. NGP has given permission to deliver to Chemicals, but will try to obtain more gas for PPG before permitting deliveries to them. This has been complicated by the fact that the sulfur level on the Cit-Con returns has been over 1.5% making it difficult to blend to a 1% sulfur spec.



D. F. Myers
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