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December 8, 1955.

TO: J. B. TINKER

FROM: R. J. CHRISTL

200 AREA WEEKLY REPORT

SOLVENT EXTRACTION PLANTS

Operations Status

221-F - Operation has continued normal through the week at a 4.5 batch/day instantaneous rate.

221-H - In "B" Line the installation of a back-up filter in the cabinet air exhaust system has been started.

First cycle operation at 7.2 batches/day was resumed Monday after about a week of poor performance at high rate. Mixer-settler feed temperatures have been increased to 35°C. and process water acidity increased to obtain improved phase separation. Results are encouraging with low entrainment being observed.

232-F - Operating rate is increasing with one furnace currently in service and the second repaired and ready for a cold run. Difficulties with grounding of the thermal column wire have not been completely resolved but operation at nominal capacity has been possible for sustained periods by reducing wire temperature.

221-H - Additional Refrigeration

Engineering has reviewed the 221-F Building heat load data which was obtained late in the summer, and applied the results of their study to an evaluation of the adequacy of refrigeration provided in 221-H.

The results indicate that the refrigeration provided is adequate under nearly all conditions of summer weather. In the event the load exceeds the supply, they recommend a rebalancing of refrigeration to maintain occupied building areas at a reasonable temperature and humidity while allowing canyon air temperature to increase. Control systems will be studied to determine feasibility and ease with which available refrigeration could be rebalanced.

In the event of failure of one of the two installed 350 T refrigeration systems, it appears that canyon cooling may be completely suspended with danger or short term effect on motor life. These results will be reviewed with the plant and, if acceptable, operating procedures developed to handle emergencies.

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Reviewing
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J. Banick 2/4/89
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12/8/55

Julep Facility and 232-H

Possible building locations are being studied with the goal of early site selection so 232-H fences and roadways can be completed to the extent that relocation will not be necessary when Julep is constructed.

A FWO for \$400,000 has been approved and forwarded to the AEC. This covers construction on 232-H up to approval of the Part I. No process equipment is to be installed on this FWO.

221-H - Continuous Solvent Washing and Third Segregated Solvent System

About 65% of this FDM (262-H) has been released for construction. Procurement on all necessary components is being expedited to match the March availability date for the canyon pumps.

221-H - Solvent Decanters

Complete redesign of the 1AW decanter is in progress to facilitate construction and to obtain a better mechanical design. Consideration is being given to removal of coils from an EM cell tank. This unit is required to replace the vessel which failed in service.

The FDM has been issued covering air-lifts for return of the solvent from the decanters directly to the mixer-settlers rather than to rerun. This will reduce the quantity of solvent currently being purged to the tanks in the burial ground.

221-H - Product Recovery (B-Line)

The design concept and arrangement of these facilities is now fairly firm and design completion is scheduled for March 1. Construction will start work in January and estimated completion is October.

221-F - "A" Line

Design of the bulk handling and of the crude oxide handling facilities are now 95% complete. Delivery of the car-loading crane will delay completion until April.

241-F - Waste Tanks

The estimate has been completed for four additional waste tanks designed for the storage of low activity waste. The Part I project is being prepared.

200-F - Increased Capacity

This project is now in the hands of the AEC and additional information is being assembled to facilitate their authorization. It is anticipated that this will be forwarded December 12.

Engineering is currently obtaining quotations on the new design large canyon equipment with the expectation that orders can be placed soon after project authorization.

12/8/55

Design of the new B-Line facilities is proceeding on the basis of installation in a new building on the roof of 221 Building.

232-F - Extraction Furnaces

Procurement of the redesigned furnaces is being expedited. By premium payments for design and substitution of stainless for nichrome, Calrod sheaths delivery has been advanced one month to March 30.

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RJC/blt