Classification Cancelled/Changed

E. du Pont de Nemours & Co.

By Authority of Wilmington 98, Delaware

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SR/H-929

1. Slack ADD 1/23/89
Name Title Date
2. CF Benish AED CO 2/4/89
Name Title Date

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TO: J. B. TINKER

December 1, 1955.

FROM: R. J. CHRISTL

200 AREA WEEKLY REPORT

SOLVENT EXTRACTION PLANTS

Operations Status

221-F - Analytical results from samples taken of the various contributors to the contents of the waste collection tank have established the air tunnel sump as intermediate source of product appearing in the high activity waste. Further investigation will be made in an effort to determine how product gets into the air tunnel sump.

First cycle operation has been satisfactory at a 4.5 batch per day rate. Increased availability of cooled metal allowed the step up in rate from 2.8 to 4.5 batches per day.

221-H - Entrainment and decontamination difficulties presumably caused by the return of large quantities of LAW from rerun to head-end temporarily caused a first cycle cut-back in rate to 6 batches per day. With diminishing difficulties the rate has been brought back up to 6.7 batches per day.

211-F - Waste Evaporator

A review of waste evaporator design concepts was held this week. Of the several concepts studied, the two least expensive were a vertical U tube design and a pot and coil design. The pot and coil design was selected on the basis that this project could be expedited since EM canyon evaporators could be used. There also was a lack of conviction that the performance of the vertical U tube evaporator would be satisfactory.

The waste evaporation facility will contain two canyon type pot and coil evaporators. Series operation of these evaporators will most likely be required to get the proper DF. However, for flexibility the evaporators will also be piped for parallel operation. For transfer of evaporator concentrate back to waste storage a submerged jet will be designed at TNX.

221-H "B" Line Product Recovery

A test of a "capacitance probe" manufactured by the Fielden Instrument Division of the Robertshaw Fulton Company has been proposed to determine the suitability of the instrument for determination of vessel levels in product recovery solutions. The use of dip tubes and manometers as is done in F Area is

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undesirable because process solutions have been sucked into the manometers outside the cabinets after vacuum transfers when the protective solenoid valves failed to operate perfectly. Other level and weight measurement devices require more room in the cabinets and modification of the vessels if they are to be used.

232-F - Extraction Furnaces

The estimated shipment date of improved extra machinery extraction furnaces from the National Research Corporation is April 1956, with the limiting factor being the redesign. Means of reducing the design time are being investigated.

232-H - Tritium Packaging

Design is proceeding with the preparation of a piping diagram for the packaging facility, incorporating comments received at the plant last week. Preliminary issue of the piping diagram will be sent to the plant December 2 for further study and comment.

221-F "B" Line - Increased Throughput

Preliminary drawings of the coupling piping diagram and equipment arrangement, and a portion of the mechanical line equipment, were sent to the plant November 1 for review and comment. Basic design criteria for the new "B" Line facilities were reviewed with Engineering and the plant liaison representative November 29 and 30.

772-F - Jumper Fabrication Jigs

The Hanford fabrication jig which was ordered for installation in the 772-F shop is now reported unavailable. The "P" Work Order covering the installation of the Hanford jig plus a new radial mock-up jig is being held pending revision of the estimate or scope of work.

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RJC/blt