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February 3, 1955.
DPW-55-17-5
SRTH--917

FROM: H. W. BELLAS, *W.B.*

WEEKLY REPORT - 100 AREAS - FEBRUARY 3, 1955.

Assembly Area

Tests on LM-Thorium loaded Q-foils have been discussed with the plant. Current plans are to move two of the four Mark II test foils in L-2 load and replace them with two foils containing LM fuel and SEP-canned Fernald Thorium. A suggestion has been made that one of these foils be loaded with A grade metal and one with B grade metal. We propose to reach a recommendation on these points so that the plant may load foils early the week of February 7.

Reactor Control

A detailed estimate on the safety brake for the latch hoist has been reviewed with Engineering Department who also estimate that about 12 days of reactor time would be consumed for installation. We expect to receive their estimates formally next week.

Reactor Complex

Repairs to the C thermal shield have been completed and the three annular tanks in question have been hydrostatically tested at 12 psig. leaks appeared in the tests. Data were taken using motion measurement equipment, and calculation and interpretation of the data are under way. The concrete will be poured in the excavated shield on Saturday, February

Formsprag clutches under test in Central Shops and in 105-C have performed satisfactorily in every respect. In view of this, additional Formsprags are being installed on the remaining motors in 105-C. The A-C tripping device which was to have been installed in 105-K as an alternative to the clutches is being deferred in installation and will not be installed if the Formsprags continue to show up well. Development of a D-C tripping device as another alternative applicable to areas with parallel installation of heat exchangers has not been successful and we have asked Engineering to write us a progress report on this subject before closing out this aspect of the work.

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1. *AWOR* ADD 1/23/59
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2. *JTB* AED CO 2/4/59
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Reviewing *JTB* 2/4/59
Official

2/3/55

Bowser Teleflow alarms to warn of low cooling water flow to A-C motors are to be supplemented with a high temperature alarm in the circulating air in the motors. The Teleflows have proven unreliable in service and, so, will be replaced by thermocouples as the source of alarm signals.

Disassembly

Rusting of shipping casks has been investigated by ESD for Design Division. They recommend zinc-painting the outsides of the casks and plugging up the cooling tubes in order to avoid the currently excessive dirty condition of water when these casks are received in the 200 Area.

Scrap handling is being investigated by Methods and Standards Group at the plant in order to arrive at a decision for the purchase of more scrap casks, for which we have received quotations.

General

Scheduling of major time-consuming equipment changes is being discussed with Design Division. There are a number of major installations or alterations to be made in 105 R, P, L and K that would require some shut down of the reactor during installation. Some of these such as the safety brake on the latch hoist and the supplemental safety system are rather extensive but can be done partly during a discharge shut down, while others such as work on lower ends of latches would require that the reactor room be accessible. These various changes can be accomplished individually or can be performed at one time with some saving of shut down time. Our plan is to develop estimates of installation time with Design Division and to discuss them at the plant about February 23.

Vapor escape from the reactor room into adjoining personnel areas has been studied in a general way by Engineering Department. We have reviewed with them their survey of doors and other passages that should be sealed in some way to prevent escape of vapors in the event of a boiling accident. The next step is to develop design details for which they wish to have a \$2,000 work request. We would estimate on a high-spot basis that the changes we are discussing cost about \$10,000 per area.

Waterproofing the inner surface of concrete of Building 106 (emergency moderator storage) has been discussed with Design Division. It appears that an essentially waterproof finish could be easily applied by the use of Thoroseal for about \$1,000 per unit. If it is desired to have a surface that can be readily decontaminated, an organic coating such as Phenoline 300 could be applied at a cost of about \$5,000 per unit. We propose to discuss with the plant our real needs for this service.

HWB/blt

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