E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

WILMINGTON, DELAWARE

EXPLOSIVES DEPARTMENT

DPW-55-16-42

SR/H--925

IN TURN TO:

1. J. B. Tinker
2. J. E. Cole
3. W. H. Holstein
4. M. H. Smith
5. ~~B. H. Mackey~~
6. H. Worthington
7. S. A. McNeight
8. W File

FROM: M. S. BLOOMSBURG *SB*

W FILE RECORD COPY

Copy 1 - J. B. Tinker

2 - K.W.Millett - T.C.Evans - SRF

3 - M.H.Wahl - SRL

4 - D.W.Bartholomew

This document consists of 3 pages

No 1 of 4 Copies, Series a

December 8, 1955

mm 12/28 Classification Cancelled/Changed
TO **UNCLASSIFIED** *ms*

By Authority of

1. <i>MMOKer</i>	<i>ADD</i>	<i>1/23/89</i>
<i>CF Banick</i>	<i>AED CO</i>	<i>2/4/89</i>
<small>Name</small>	<small>Title</small>	<small>Date</small>

WEEKLY REPORT DECEMBER 2-8, 1955
300-M AREA - SAVANNAH RIVER PLANT

I. ITEMS REQUESTED OF ENGINEERING

Increased Productivity Program

Design progress on the NFE program was reviewed here in Wilmington on 12/6. Plant representatives present at this meeting were K. L. Flanders and E. C. Laing. General agreement was reached on an "L" shaped Mark III building located west of Building 704 and 313 M. As now visualized the new Mark III Building will contain approximately 236,000 square feet of floor space.

Major policy questions considered regarding preliminary Design work on a Mark VI fuel facility are noted below:

1. Preliminary building and equipment layouts will be made on the basis of two fuel tubes/reactor position (26,400 tubes/yr.), although present design capacity is 13,200 tubes/year.
2. Operating basis was changed from 15 to 21 shifts per week.
3. One new extrusion press will be provided in the Mark VI fuel building.

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

MASTER *ra*

DOES NOT CONTAIN
UNCLASSIFIED CONTROLLED
NUCLEAR INFORMATION

Reviewing
Official: *CF Banick*
C. J. Banick, AED Class Officer
Date: *2/4/89*

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

4. Storage area provided in the Mark VI fuel building will be limited in size so that combined Mark III and Mark VI storage space allowances will not materially exceed that required for operation of five reactors regardless of the division between natural and enriched loadings.

A rough draft letter from SRP covering differences between the outstanding Mark IV fuel scope of work and Mark VI fuel as well as target fabrication has been received from SRP and transmitted to Engineering.

II. ITEMS OF INTEREST

Completion of the current Mark VII canning run at Sylvania (for the R-9 loading) will be delayed beyond the scheduled date of 12/9 because of delay in core delivery from FMPC. A total of 1400 out of the required 2,000 cores are now on hand at SEP. To date a total of 690 finished pieces have been shipped to SRP. ~~today~~. SEP yield is now averaging approximately 90% including the three experimental categories (bore warp, flared I.D. and eccentricity).

Current estimates indicate that over-all SEP processing yields for the R-9 loading may be expected to be somewhere near the following:

<u>Processing Step</u>	<u>No. of Pieces</u>	<u>Yield %</u>
1. No. bare cores order from FMPC	2,000	
2. Bare cores acceptable for canning	1,500 - 1,600	75-80%
3. Shipped to SRP:		
Acceptable under present tentative specs.	675 - 800	45-50%
Experimental categories	600 - 640	40-45%
Total Shipped to SRP	1275 - 1440	85-90%
4. Acceptable pieces to Reactors:		
Acceptable under present tentative specs.	500 - 600	
Experimental categories	450 - 480	
Total	955 - 1080	75%

A meeting on the Mark VII program will be held at Sylvania on 12/9, at which time responsibility for direction of the SEP program will be transferred from the Wilmington Process Section to SRP.

Periscope examination of irradiated AlSi dipped Mark VII assemblies removed from the R-7 loading has shown nothing particularly unusual. Some surface pimpling was noted but this is also observed on the present Mark I slugs. Hot laboratory examinations have not yet been made.

Start of Mark VII slug canning for R-9 loading by the AlSi process awaits delivery of aluminum components now expected to arrive at SRF today.

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DWB/ms