

Files

January 17, 1957

W. J. Costley

STAFF MEETING ON THE CURTIS-WRIGHT RESEARCH REACTOR
NOVEMBER 26, 1956

SYMBOL: CA:HEB:WJC

STAFF MEMBERS IN ATTENDANCE:

- C. Rogers McCullough
- C. K. Beck
- J. Z. Holland
- C. D. Luke
- G. Hovorka
- B. J. Garrick
- G. Mortensen
- T. G. Schleiter
- W. J. Costley

The reactor was described as being of the swimming pool type. The core, which may be BeO reflected, consists of 18 ten plate elements of 170 g of fully enriched U-235. The critical mass is estimated to be approximately 2.7 to 3.6 kg. Experimental facilities are limited to three beam holes with a flux of $3-5 \times 10^8 \frac{n}{cm^2 \cdot sec}$ at 1000 K.W. The reactor will be

controlled by three boron carbide shim safety rods worth 2.6% H₂O reflected and 3.8% BeO reflected and one stainless steel control rod worth 0.6% H₂O reflected and 1.2% BeO reflected.

The reactor building is designed for a bare minimum of containment, its leakage rate being approximately 130 ft. 3/min but its situation 100 mi NE of Pittsburgh is a very sparsely populated area.

Some points discussed were as follows:

1. The adequacy of the shield when the reactor is in the open end of the pool. The shield consists of 4 ft. of H₂O and 1 ft. of concrete.
2. The 54 position grid seems large and flexible. How is this grid going to be used.
3. Clarification of the building specifications was desired, such as: (a) the function of the remote control room, (b) the function of the trench shown in the floor plan, and (c) whether or not the doors are interlocked.

RHE Curtis Wright

D-24

CA:HEB OFFICE					
COSTLEY:fa SURNAME	WJC				
1-17-57 DATE					

4. If the flexible cooling hose broke how would this break be detected.
5. What is the possibility of interchanging fuel and reflector elements in the core.
6. The value of the BeO reflected control rod was thought to be large.

The design of this reactor incorporated no new novel features and had a very favorable exclusion radius, thus, it was considered to be safe at the site under consideration.

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Handwritten notes and signatures:
1-30-57
D. G. ...
S. ...
6. ...
C.B.
O.P.W.
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Office Memorandum • UNITED STATES GOVERNMENT

TO : Files

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