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C. D. Lingenfelter

May 20, 1958

C. C. Bigelow

cc: E. R. Dytko

PWAR-11 Data for Performance Analysis

CNLM 781

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NO. 2 OF 3 PAGES

The following data are submitted as the current design numbers for the PWAR-11, Columbiu-m-Lithium, Intermediate Reactor for the purpose of a preliminary performance study.

General Reactor Operating Conditions

Reactor power	350 MW
Reactor life at full power	150 hrs.
Coolant inlet temperature	1600° F
Coolant exit temperature	2000° F
Coolant inlet pressure	260 psia
Coolant outlet pressure	110 psia
Radiator inlet pressure	105 psia
Radiator outlet pressure	30 psia
Coolant flow rate	850 lbs/hr
Total pumping power	1890 HP

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J. F. Carroll
Chief, Declassification Branch

Reactor and Shield Configuration and Weight

Core size	18 in.l. x 18 in.d. cyl.
Reflector size, side and top	7 in. thick
Pressure shell	48.4 in.l. x 33.8 in.d.
Shield-transverse diameter	70.8 in.
Maximum radius	52 in.
Height	86.1 in.
Shield weight-crew compartment	11,090 lbs.
Reactor shield	18,110 lbs.
Reactor weight	4,470 lbs.
Total weight-reactor plus shield	33,670 lbs.

45,000 lb
18 lbs
27 lbs
33,670 lb
55,000 lb
11.3 lbs
27 lbs
June 1 Dec
5/23/58

C. C. Bigelow

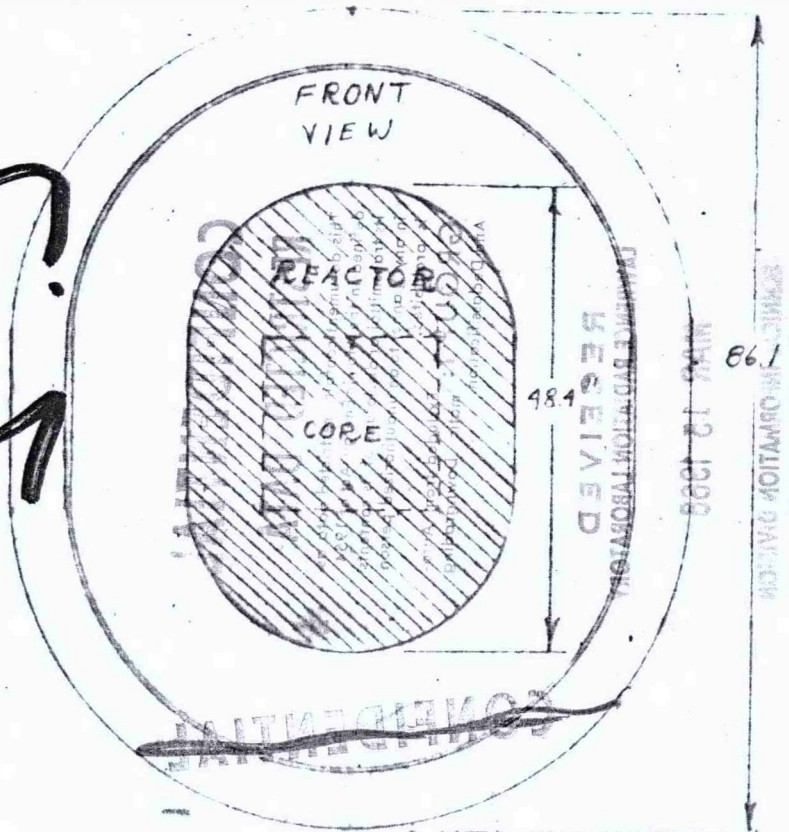
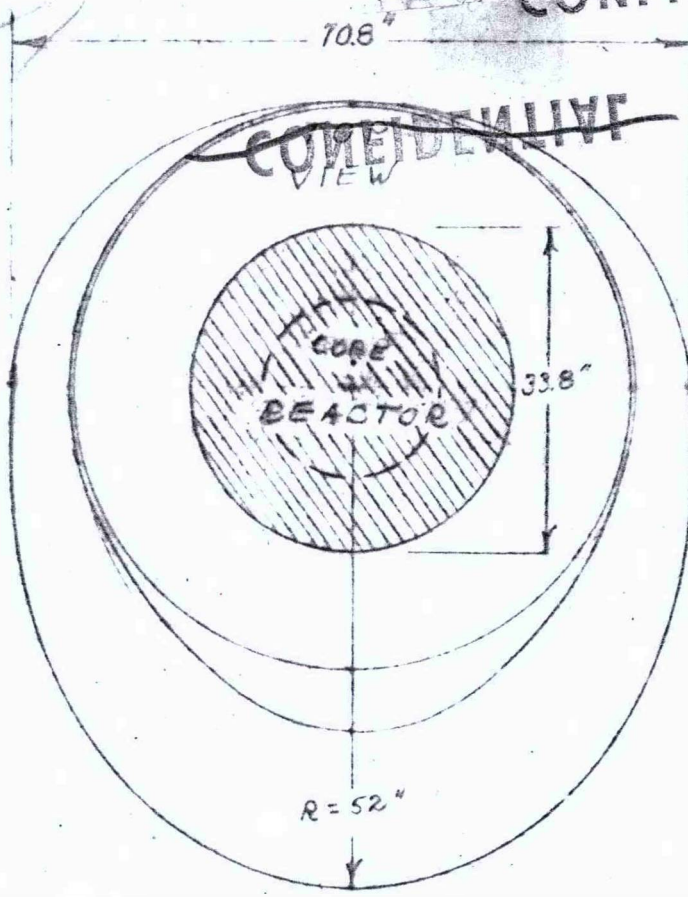
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