

Docket No. 50-39

NOV 25 1958

Curtiss-Wright Corporation
Research Division
Quehanna, Pennsylvania

Attention: Mr. Paul F. Liller
Nuclear Power Department

Gentlemen:

This will acknowledge receipt of your letter of November 7, 1958 requesting that facility license R-36 be amended to permit short duration operation at one megawatt.

You will be informed of further action in this matter or if supplemental information is required.

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Very truly yours,

Lyall Johnson
Chief, Licensing Branch
Division of Licensing and Regulation

D-119

OFFICE ▶	LRL	LRL	LRL			
SURNAME ▶	FC Lee/mjm	OT Edwards	L Johnson			
DATE ▶	11/21/58					

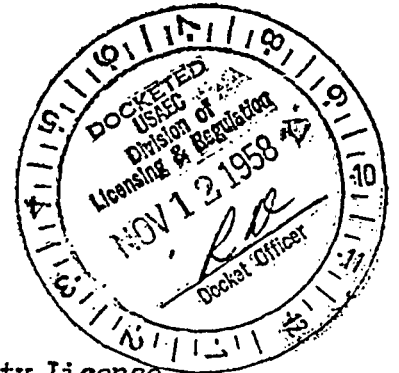
CURTISS-WRIGHT CORPORATION
 RESEARCH DIVISION
 QUEHANNA, PENNSYLVANIA
 AMHERST 3-4711

November 7, 1958

U. S. Atomic Energy Commission
 Division of Licensing & Regulation
 Washington 25, D. C.

Attention: Mr. Lyall Johnson, Chief
 Licensing Branch

Gentlemen:



Application is hereby made to amend our Reactor Facility License No. R-36 to allow short duration operation at a power level of 1 Megawatt.

Our Reactor Facility License No. R-36 authorizes operation at 100 KW until certain items of cooling system equipment are installed and at 1 megawatt thereafter. The primary coolant circulating system is complete and fully instrumented. The heat exchanger, cooling tower and secondary coolant system pumps are not yet installed. The design of the secondary system, however, is complete and the equipment is on order. It would be desirable to be able to make short runs at 1 megawatt, at an early date, to test the cooling system and shielding design. Operation at this level is feasible since the reactor pool provides a 147,000 gal. supply of cool water. Assuming that this water (normal temp. 64° F) is heated uniformly to 100° F, and making no allowances for heat losses from surface or walls of pool, it could absorb approximately 4×10^7 BTU. This heat capacity would allow operation at 1 megawatt for a period in excess of ten hours under the conditions stated above.

The conditions under which we propose to operate at 1 megawatt are:

Flow Rate	700 GPM
Slow Shutdown-Low Flow	525 GPM (75% normal)
Differential Temperature across core	10° F
Alarm Temperature-Core Effluent	110° F

Calculations have indicated that the average maximum fuel temperatures under these conditions will be approximately 114° F. These calculations are based on a core array of 4 x 5 with no reflector elements.

Thank you for your continuing cooperation.

Very truly yours,
 CURTISS-WRIGHT CORPORATION
 RESEARCH DIVISION

Paul R. Liller

Paul R. Liller
 Nuclear Power Department

Docket No. 50-39

OCT 1 1958

Curtiss-Wright Corporation
Research Division
Quehanna, Pennsylvania

Attention: Mr. Carlyle J. Roberts
Nuclear Power Department

Gentlemen:

This will acknowledge receipt of eight copies of the Mutual Atomic Energy Liability Underwriters Binder No. 13 which extends your Nuclear Energy Liability Insurance through December 31, 1958.

Very truly yours,

DISTRIBUTION

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Lyall Johnson
Chief, Licensing Branch
Division of Licensing and Regulation

OFFICE	LR	LR				
SURNAME	Edwards/mjm	LJohnson				
DATE	9/30/58	(J)				