CURTISS-WRIGHT CORPORATION
RESEARCH DIVISION
BRIGHTON ROAD
CLIFTON, NEW JERSEY
U. S. A.

December 21, 1956

To: Atomic Energy Commission
1901 Constitution Avenue
Washington 25, D. C.

Attention: Division of Civilian Application

Subject: Application for Amendment to Curtiss-Wright Research Division Application for License dated October 24, 1956

Enclosures: Six (6) copies of application for license for possession and use of Special Nuclear Materials as amendment to and incorporating herewith Curtiss-Wright application for Class 104-c license.

1. Curtiss-Wright Corporation, Research Division, respectfully submits herewith its application for a License for possession and use of Special Nuclear Materials in accordance with Section 50.60 of the Regulations of the Atomic Energy Commission.

2. It is the desire of the Curtiss-Wright Corporation, Research Division, to have the subject application considered as an Amendment to its application for a Class 104-c Research and Development Facility and By-Product Material License of October 24, 1956.

3. In accordance with Section 70.21 (e) of the Regulations of the Atomic Energy Commission, the Research Division incorporates by reference the information contained in its application for said Class 104-c License.

4. It is requested that a License for possession and use of Special Nuclear Materials be granted to further facilitate the work of the Research Division in its Atomic Energy programs of military and commercial application.

Respectfully,

CURTISS-WRIGHT CORPORATION
RESEARCH DIVISION

George R. Hill
Vice President for Finance

MS:wcb

D-21

APPLICATION FOR LICENSE FOR POSSESSION AND USE OF SPECIAL NUCLEAR MATERIALS AS AMENDED TO AND INCORPORATING HEREWITH CURTISS-WRIGHT APPLICATION FOR CLASS 104-c RESEARCH AND DEVELOPMENT FACILITY AND BY-PRODUCT MATERIAL LICENSE OF OCTOBER 24, 1956

A. NAME - Curtiss-Wright Corporation, Research Division

B. ADDRESS - Quehanna, Pennsylvania

C. By virtue of Section 70.21 (e) of the Regulations of the Atomic Energy Commission, the Applicant herewith incorporates by reference to and makes a part hereof the same as if herein contained the information contained in the Curtiss-Wright application for Class 104-c Research and Development Facility and By-Product Material License of October 24, 1956.

D. This special nuclear material license is requested for the same period of time as the facility license, that is, twenty years.

E. As indicated in the Preliminary Hazards Evaluation Report, a total of 32 fuel elements containing approximately 4.5 Kg of U-235 are desired. To allow the fuel element fabricator sufficient working excess, application is hereby made for 6 Kg of U-235 in the following form:

High purity enriched uranium (90% U-235) remelted and pickled; 50% of the said enriched U-235 as pieces with no dimensions greater than 3/8", the balance with dimensions no greater than 1/8", no powder. In addition, shipping containers to be limited to 2.0 Kg U-235 per container.

4.5 Kg of U-235 to be delivered to the Applicant named herein. Accountability and return to the Atomic Energy Commission, of the balance, to be the responsibility of the Fabricator.

F. It is requested that the first shipment of Special Nuclear Material (6.0 Kg U-235) reach the fuel element fabricator by January 31, 1957. The fabricator of said fuel elements shall be Sylvania Electric Products Company of Bayside, Long Island, New York.

G. The estimated schedule for subsequent receipt of enriched uranium for replacement of fuel elements is as follows:

Calendar Year	Estimated U-235 Requirement
1957	None
1958	None
1959	4 Kg.
1960	5 Kg.
1961	5 Kg.

The estimated schedule of production, consumption and operating losses of Special Nuclear Material is as follows:

Year	Production	U-235 Consumption	Operating Losses
1957	Negligible	2 gm	None
1958	Negligible	85 gm	None
1959	Negligible	200 gm	None
1960	Negligible	200 gm	None
1961	Negligible	200 gm	None

The estimated schedule of transfer of special nuclear material to the Commission is as follows:

Year	U-235 As Spent Fuel Elements
1957	None
1958	None
1959	3.0 Kg.
1960	3.8 Kg.
1961	3.8 Kg.

The above estimates are based on the assumptions that (1) the reactor will log about 200 megawatt-days per year once routine operation at 1 megawatt is achieved in 1958, and (2) 5-10% burn-up can be tolerated before reprocessing of fuel elements becomes necessary.

State of New Jersey
County of Bergen

George R. Hill, being duly sworn, deposes and says that he is the Vice-President for Finance of the Curtiss-Wright Corporation mentioned in the foregoing application, that he has read the said application and knows the contents thereof and that the same is true of his own knowledge except as to the matters therein stated on information and belief and as to those matters he believes it to be true.

George R. Hill
Vice-President for Finance

I, Roger W. Mullin, Jr., certify that I am the Assistant Secretary of the Corporation named as Applicant, that George R. Hill, who signed this application, was then the Vice-President for Finance of said Corporation; that said application was duly signed for and in behalf of said Corporation by authority of its governing party, and is within the scope of its corporate powers.

Roger W. Mullin, Jr.
Assistant Secretary