ACC

DEPARTMENT OF STATE

Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

MAR 19 1981

Mr. James R. Shea
Director of International Programs
United States Nuclear Regulatory Commission
Room 6714 - MNBB
Bethesda, Maryland

XSNM01521
XSNM01536
XSNM01764
HEU for the HFR
Reactor, Grenoble, France

Dear Mr. Shea:

This letter is in response to the letters from Mr. Gossick dated June 13, and July 12, 1979, and the letter from your office dated November 21. 1980, requesting Executive Branch views as to whether issuance of export licenses in accordance with the applications hereinafter described would be inimical to the common defense and security of the United States and whether the proposed exports meet the applicable criteria of the Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act of 1978:

NRC No. XSNM01521, -1536 and -1764 — Applications by Transnuclear, Inc. and Edlow International for authorization to export to France via the Federal Republic of Germany the following amounts of special nuclear material: -1521 — 30.8 kg. U-235 in 33.0 kg. U; -1536 — 24.31 kg. U-235 in 26 kg. U; and -1764 -- 24.31 kg. U-235 in 26 kg. U for a total of 79.42 kilograms of U-235 contained in 85 kilograms of uranium enriched to a maximum of 93.5 percent. The enriched uranium in the form of UF_6 will be shipped to NUKEM, GmbH, Hanau, FRG, for conversion into UO_2. NUKEM and CERCA will fabricate the material into fuel elements for the HFR Reactor at Grenoble.

The proposed exports would take place pursuant to the Additional Agreement for Cooperation Between the United States and the European Atomic Energy Community (EURATOM) as confirmed in letters from the Delegation of the Commission of the European Communities, copies of which are enclosed. EURATOM has adhered to the provisions of its Agreement for Cooperation with the United States.

The Executive Branch has reviewed these applications and concluded that the requirements of the Atomic Energy Act, as amended by the Nuclear Non-Proliferation Act of 1978, have been met and that the proposed export will not be inimical to the common defense and security of the United States. A detailed analysis for EURATOM was submitted December 8, 1978 for NRC applications XSNM01212, -1232 and -1241. In view of Executive Order 12295 extending the duration of the period specified in the first proviso to Section 126a(2) of the Atomic Energy Act of 1954, as amended, to March 10, 1982, that detailed analysis remains valid. There has been no other material change in circumstances since that submission.

The High Flux Reactor (HFR) at Grenoble is a 57 MW research and test facility located at the Institute Max Von Laue - Paul Langevin. It is used for neutron beam experiments in solid state, nuclear and elementary particle physics, chemistry and biology. The Institute is operated jointly by the British French and Germans. According to information furnished by the operators, a total of 147 kilograms of U-235 in fresh unirradiated fuel was on hand as of January 1, 1980, either in the form of completed elements or in process of fabrication. As part of the British, French, German agreement in support of the Grenoble HFR, the fuel fabricators require maintenance of working stocks of U-235 — NUKEM, 15 kilograms and CERCA, 30 kilograms. Hence, the current inventory provides 102 kilograms U-235 available for use in the HFR, enough to supply the reactor until late 1982. The three current requests combined (79 kilograms U-235 or about 17 months' supply) would be sufficient to fuel the HFR until early 1984. Average lead time for enrichment, shipment, conversion and fabrication of the HFR elements is estimated to be a minimum of 18 months. Therefore, the operator has requested early action on these license requests to ensure supply of the fabricated fuel by October 1982.

The Argonne National Laboratory in 1978 completed a technical and economic analysis of the reactor and concluded that it is not a candidate for use of lower enriched fuels in the near term. Since the fuel element design is closely integrated with the beam research facilities and reactor control systems, alteration of the fuel element will be difficult to accomplish without significant reduction in reactor performance. Longer term conversion possibilities will depend on the further development of lower enriched, higher density fuels.

On the basis of the foregoing, the Executive Branch recommends that the licenses be issued.

Sincerely,

Louis V. Nosenzo
Deputy Assistant Secretary

Enclosures:
Assurance letters

DELEGATION OF THE COMMISSION OF THE EUROPEAN COMMUNITIES

EURATOM SUPPLY AGENCY

August 8, 1979

Mr. Vance H. Hudgins
Assistant Director for Politico-
Military Security Affairs
Division of International Security Affairs
Department of Energy
Washington, D.C. 20545

Dear Mr. Hudgins:

Subject: Edlow International Co.'s application URN-3 (as agent for Urangesellschaft, GmbH) dated July 5, 1979 for France - XSNMo1536

We certify that the material mentioned in this application, namely 24.31 kilograms of U_{235} contained in 26 kilograms of total uranium (in the form of UF_6), and the transfer of this material will be subject to all terms and conditions of the Additional Agreement for Cooperation, dated July 25, 1960, as amended.

Further, we certify that Nukem, GmbH, Hanau, West Germany (for fabrication of fuel elements only), as intermediate consignee, and the Institut Laue-Langevin, Grenoble, France, as ultimate consignee, are authorized by EURATOM to receive and possess this material pursuant to the aforementioned Agreement for Cooperation.

The material will be used in the I.L.L. high flux reactor for research and testing in Grenoble - France.

Sincerely,

J. Marchal

ajs

cc: Mr. Robin De LaBarre, State Department
Ms. Betty Wright, NRC
Mrs. Diane Harmon, Edlow International Co.

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