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DEPARTMENT OF STATE

Washington, D.C. 20520



BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

APR 13 1981

*XSNM01500
HEU for DR-3,
Denmark*

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

Dear Mr. Shea:

This letter is in response to the letter from your office dated April 26, 1979, requesting Executive Branch views as to whether issuance of an export license in accordance with the application hereinafter described would be inimical to the common defense and security of the United States and whether the proposed export meets the applicable criteria of the Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act of 1978:

NRC No. XSNM01500 — Application by Transnuclear, Inc. for authorization to export to Denmark via the Federal Republic of Germany 14.030 kilograms of U-235 contained in 15.038 kilograms of uranium enriched to a maximum of 93.3 percent. The enriched uranium in the form of UF₆ will be shipped to NUKEM, GmbH, Hanau, FRG, for conversion into uranium metal and then to the Elsinore Shipyard, Riso, Denmark, for manufacture of fuel elements of the DR-3 Research Reactor at Riso.

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

The Executive Branch has reviewed the application 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.

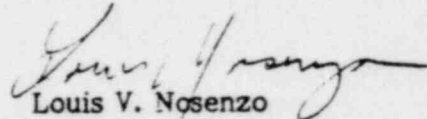
The DR-3 is a 10 MW research and test reactor operated by the Riso Research Establishment for materials testing and radioisotope production. A total of 43.5 kilograms of U-235 in fresh unirradiated fuel was on hand as of

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March 4, 1979 in the form of completed elements or in process of fabrication, an amount sufficient for operation until early 1984, on the basis of an annual utilization rate of 8.4 kilograms of U-235. The current request for 14.03 kilograms of U-235 would provide sufficient fuel to permit reactor operation until late 1985 when conversion to use of medium-or low-enriched fuel may be possible. Argonne National Laboratory and DR-3 personnel are examining the conversion potential of the DR-3 reactor and have concluded that conversion to use of 45 percent or 20 percent enriched fuel is possible. DR-3 personnel plan to test a 45 percent enriched fuel element near the end of 1983. Allowing for testing and licensing of the lower-enriched fuel, the reactor could be converted to medium-enriched fuel by 1985. There are also plans to test an LEU fuel element in the DR-3. Average lead time for conversion and fabrication to the DR-3 fuel elements is estimated to be from 18 to 24 months.

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

Sincerely,



Louis V. Nosenzo
Deputy Assistant Secretary

Enclosure:
Assurance letter

DELEGATION OF THE COMMISSION OF THE EUROPEAN COMMUNITIES

EURATOM SUPPLY AGENCY

May 21, 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:

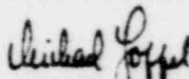
Subject: Transnuclear, Inc. application NUK-279 79-132/01
dated April 20, 1979 for Denmark - XSNMol500

We certify that the material mentioned in this application, namely 14.030 kilograms of U-235 contained in 15.038 kilograms of U, 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 Transnuclear, GmbH, Hanau, West Germany (for transport purposes only), Nukem GmbH, Hanau, West Germany (for conversion of UF6 into U metal), and Elsinore Shipyard, Riso, Denmark (for manufacture of fuel elements), as intermediate consignees, and the Riso Research Establishment, Roskilde, Denmark, 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 for the manufacture of fuel elements for the DR-3 reactor at Riso - Denmark.

Sincerely,


M. Goppel

JM/ajs

cc: Mr. Robert DeLabarre, State Department
Ms. Betty Wright, NRC
Ms. Vicki Matson, Transnuclear, Inc.