



DEPARTMENT OF STATE

Washington, D.C. 20520

JAPAN  
XSNM01668

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BUREAU OF OCEANS AND INTERNATIONAL  
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

OFFICE OF  
INTERNATIONAL  
PROGRAMS

AUG 13 1980

XSNM01668  
45% HEU  
for JMITRC

MEMORANDUM FOR JAMES R. SHEA  
NUCLEAR REGULATORY COMMISSION

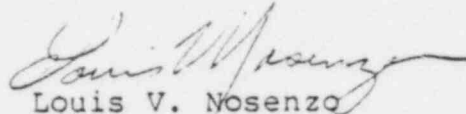
Enclosed is an Executive Branch review of a license application for export of medium-enriched uranium to Japan, via the Federal Republic of Germany for conversion and fabrication. In accordance with the Nuclear Non-Proliferation Act of 1978 (P.L. 95-242), the Executive Branch considered how the requirements of Section 126 a.(1) of the Atomic Energy Act, as amended, are met, including the specific criteria of Sections 127 and 128, as well as certain additional factors, envisaged by Section 126 a. (1).

The Executive Branch, on the basis of its review of the application, has concluded that the requirements of the Atomic Energy Act, as amended by P.L. 95-242, have been met and that the proposed export would not be inimical to the common defense and security of the United States, provided that the transport of the material proposed for export shall, for the international portion of shipment, be in accordance with a physical security plan which is acceptable to the concerned agencies.

A detailed analysis for Japan was submitted April 30, 1979 for NRC application No. XSNM01435. In regard to the export to the FRG, a EURATOM member state, as intermediate consignee, a detailed analysis for the FRG and the European Community was submitted November 27, 1979 for the application No. XU08427. A detailed analysis regarding physical security arrangements in EURATOM was submitted December 8, 1978 for application XSNM-1241. There has been no material change in circumstances regarding Japan since those submissions. In view of Executive Order 12193, 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, 1981, the detailed analyses for EURATOM remain valid. There has been no other material change in circumstances since that submission.

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Moreover, Japan and EURATOM (for the FRG) have adhered to the provisions of their Agreements for Cooperation with the United States. Therefore the Executive Branch recommends issuance of the requested export license.



Louis V. Nosenzo  
Deputy Assistant Secretary

Enclosures:  
As stated

XSNM01668

Country: Japan

Transaction: The export of 10.053 kilograms of U-235 contained in 22.142 kilograms of uranium in the form of uranium hexafluoride enriched to 45.4 percent to be converted to uranium metal by NUKEM, GmbH, Hanau, FRG and fabricated into fuel elements for criticality experiments in the Japan Materials Testing Reactor Critical Facility (JMTRC).

Applicant: Transnuclear Incorporated

Date of Application: March 25, 1980

Quantity of Unirradiated HEU (kgs of U-235) Excluding Current Request

	<u>JMTRC</u>
On hand at reactor sites	13.6 kgs. -- 34 elements 90-93%
In fuel fabrication process	--
Totals	13.6 kgs.

Steps Taken to Determine the Possibility of Converting the Facility to Use of Fuel of Lower Enrichment

This export of MEU fuel is pursuant to the DOE high-density, lower-enrichment research reactor fuel program. The critical experiments in the JMTRC will provide important experimental data which can be applied to the conversion of the JMTR, JRR-2 and JRR-4 reactors to 45% enrichment fuel when this high density fuel is available. Based on independent studies at ANL and Japan Atomic Energy Research Institute (JAERI), the owner/operator of these reactors, JAERI is planning a 5-year program with the objective of a full-core demonstration with 45% fuel in the JMTR, JRR-2 and JRR-4 reactors in mid-1983. The ANL and JAERI also are planning a joint program to study the feasibility of using less than 20% enriched fuel in the three reactors.

EMBASSY OF JAPAN

2520 MASSACHUSETTS AVENUE, N.W.

WASHINGTON, D.C. 20008

(202) 234-2266

July 8, 1980

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

Dear Colonel Hudgins:

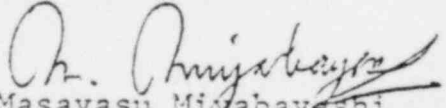
Concerning import of the special nuclear material for the facility noted below, this will confirm that the Government of Japan appointed Japan Atomic Energy Research Institute (JAERI) as an authorized person under the terms and conditions pursuant to Article VI of the Agreement for Cooperation between the Government of the United States of America and Government of Japan concerning Civil Uses of Atomic Energy which entered into force on July 10, 1968, amended by the Protocol on December 21, 1973.

Fuel for JMTRC of JAERI: 10.053 kgs of U-235  
(45.40 % maximum enrichment) contained in 22.142 kgs of uranium

Further, it is confirmed that the transfer of the special nuclear material identified above will take place under all the terms and conditions of the Agreement for Cooperation between our Governments, and that the appointee(s) named above have been authorized to receive and possess the material by both Governments.

Also, the Government of Japan confirms that the safeguards and guarantees of the Agreement for Cooperation will always apply to this special nuclear material, except for that material subsequently retransferred with the written approval of the United States.

Sincerely yours,

  
Masayasu Miyabayashi  
First Secretary (Scientific)

Ref: This is in reference to the case number of XSNM-1668 stated in your letter dated April 15, 1980.

DELEGATION OF THE COMMISSION OF THE EUROPEAN COMMUNITIES

EURATOM SUPPLY AGENCY

May 16, 1980

Mr. Vance H. Hudgins  
Director, Division of Politico-  
Military Security Affairs  
Office of International Security Affairs  
U.S. Department of Energy  
Washington, D.C. 20585

Dear Mr. Hudgins:

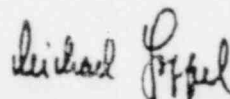
Subject: Transnuclear, Inc. application MISC 321 80-073/01  
dated March 25, 1980 for Japan - XSNMol668

We certify that the material mentioned in this application, namely 10.053 kilograms of U<sub>235</sub> contained in 22.142 kilograms of total uranium, 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 German (for transport purposes only), and NUKEM, GmbH, Hanau, West Germany (for conversion and fabrication only), as intermediate consignees, are authorized by EURATOM to receive and possess this material pursuant to the aforementioned Agreement for Cooperation.

The material (in the form of UF<sub>6</sub>) will be converted into U metal and fabricated into fuel elements by NUKEM for use in Japan.

Sincerely,



M. Goppel

ajs

cc: ✓ Mr. Robin De LaBarre, U.S. Department of State  
Ms. Betty Wright, U.S. Nuclear Regulatory Commission  
Ms. Vicki Matson, Transnuclear, Inc.

N.B.: Our reference AGF/02/NUKEM/2