UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

October 1, 1980 SECY-80-451

INFORMATION REPORT

For: The Commissioners

From: James R. Shea, Director
Office of International Programs

Thru: Executive Director for Operations THR for W.J.D.

Subject: EXECUTIVE BRANCH RESPONSE ON PENDING EXPORT APPLICATION XSNM01718, HEU FOR WEST GERMANY

Purpose: To inform the Commission of the above subject.

Discussion: Enclosed for the information of the Commission are copies of the Executive Branch response on a pending export license application. Also enclosed is a copy of the original application. Copies of the Executive Branch comments have been placed in the Public Document Room. A Commission Action Paper will be forwarded soon.

Commissioners are requested to advise the staff of any particular issues or information which they can identify at this stage and which they wish included in the staff's analysis.

James R. Shea, Director
Office of International Programs
OCT 1 1980

Enclosures
As Stated

Contact:
B.L. Wright, IP (27984)
R.N. Moore, IP (27984)

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DEPARTMENT OF STATE

Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

SEP 16 1980

XSNM01718
HEU for W. Ger.

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 August 15, 1980, 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 (P.L. 95-242):

> NRC No. XSNM01718 -- Application by Transnuclear, Inc. for authorization to export to the Federal Republic of Germany 2.951 kilograms of U-235 contained in 6.5 kilograms of uranium enriched to a maximum of 45.4 percent. This medium-enriched uranium in the form of uranium hexafluoride will be shipped to NUKEM, FRG, for fabrication into 10 prototype fuel elements for test irradiation in the FRG-1 and -2 research reactors at Geesthacht.

The proposed export to the Federal Republic of Germany 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 the European Communities. EURATOM has adhered to the provisions of its Agreement for Cooperation with the United States.

A technical and economic justification has not been prepared in this case as the proposed export of medium-enriched uranium is pursuant to the US-FRG cooperative program to reduce the enrichment level of research reactor fuels.

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The Executive Branch has reviewed this application and concluded that the requirements of the Atomic Energy Act, as amended by P.L. 95-242, 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 the FRG was submitted December 8, 1978 (NRC No. XSNM01241). In view of Executive Order 12193, extending the duration of the period specified in the irst proviso to Section 126a(2) of the Atomic Energy Act of 1954, as amended, to March 10, 1981, that detailed analysis remains valid. There has been no other material change in circumstances since that submission.

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

August 26, 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

Subject: Transnuclear, Inc. application (NUK-337)80-168/01
dated August 12, 1980, for GKSS Forschungszentrum,
Geesthacht, West Germany - XSNM-1718

Dear Mr. Hudgins:

We certify that the material mentioned in this application, namely 6.5 kg of U, 45.4% enriched in U-235, 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, as intermediate consignee, and GKSS Forschungszentrum, Geesthacht, West Germany, as ultimate consignee, are authorized by EURATOM to receive and possess this material (as delineated by the above referenced application) pursuant to the aforementioned Agreement for Cooperation.

This material will be used for conversion and fabrication of high density fuel elements prototypes to be tested in the FRG-1 and FRG-2 reactors.

Sincerely,

J. Marchal
Secretary, Nuclear Supply

cc: Mr. Robin De LaBarre, State Department
Ms. Behty Wright, Nuclear Regulatory Commission
Mrs. Vicki Matson, Transnuclear, Inc.

2100 M Street NW Suite 707 Washington DC 20037 / telephone: (202) 862-9500 / telex: Washington WU 89539 (EURCOM WSH)

FORM NRC-7
(7-78)
10 CFR 110

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY GAO
B-180225(R0362)

APPLICATION FOR LICENSE TO EXPORT NUCLEAR MATERIAL AND EQUIPMENT *(See Instructions on Reverse)*

1. APPLICANT'S USE	a. DATE OF APPLICATION	b. APPLICANT'S REFERENCE	2. NRC USE	a. LICENSE NO.	b. DOCKET NO.
	August 12, 1980	(NUK-337) 80-168/01		XSNM01718	11002166

3. APPLICANT'S NAME AND ADDRESS	RIS	4. SUPPLIER'S NAME AND ADDRESS *(Complete if applicant is not supplier of material)*	RIS
a. NAME Transnuclear, Inc.		U.S.D.O.E.	
b. STREET ADDRESS One Skyline Place, 5205 Leesburg Pike		a. NAME c/o Goodyear Atomic Corp.	
c. CITY: Falls Church; STATE: VA; ZIP CODE: 22041		b. STREET ADDRESS Route One	
d. TELEPHONE NUMBER *(Area Code – Number – Extension)* 703-820-2450		c. CITY: Piketon; STATE: OH; ZIP CODE: 45661	

5. FIRST SHIPMENT SCHEDULED	6. FINAL SHIPMENT SCHEDULED	7. APPLICANT'S CONTRACTUAL DELIVERY DATE	8. PROPOSED LICENSE EXPIRATION DATE	9. U.S. DEPARTMENT OF ENERGY CONTRACT NO. *(If Known)*
		To be determined	One year from date of issuance	To be assigned

10. ULTIMATE CONSIGNEE	RIS	11. ULTIMATE END USE *(Include plant or facility name)*	
a. NAME GRSS - Forschungszentrum Geesthacht GmbH		Will be used for the FRG-1 and FRG-2 Reactors at Geesthacht, Federal Republic of Germany (See attached End Use Statement)	
b. STREET ADDRESS Postfach 1160, 2054 Geesthacht			
c. CITY – STATE – COUNTRY Federal Republic of Germany		11a. EST. DATE OF FIRST USE	
12. INTERMEDIATE CONSIGNEE	**RIS**	**13. INTERMEDIATE END USE**	
a. NAME Nukem, GmbH		Conversion and fabrication of 10 prototype elements (see attached End Use Statement)	
b. STREET ADDRESS D-6450 Hanau			
c. CITY – STATE – COUNTRY Federal Republic of Germany		13a. EST. DATE OF FIRST USE	
14. INTERMEDIATE CONSIGNEE	**RIS**	**15. INTERMEDIATE END USE**	
a. NAME Transnuklear, GmbH		Intermediate for transport purposes only	
b. STREET ADDRESS 645 Hanau, Postfach 110030, Wolfgang-bei-Hanau Industriegelande			
c. CITY – STATE – COUNTRY Hessen, West Germany		15a. EST. DATE OF FIRST USE	

16. NRC USE	17. DESCRIPTION *(Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components)*	18. MAX. ELEMENT WEIGHT	19. MAX. WT. %	20. MAX ISOTOPE WT.	21. UNIT
	Uranium in the form of uranium hexafluoride enriched to 45.4 percent U235	6.5 Kg U	45.4	2.951 Kg U	Kg

RECEIVED

22. COUNTRY OF ORIGIN.-SOURCE MATERIAL	23. COUNTRY OF ORIGIN-SNM WHERE ENRICHED OR PRODUCED	24. COUNTRIES WHICH ATTACH SAFEGUARDS *(If Known)*
	U.S.	EURATOM

25. ADDITIONAL INFORMATION *(Use separate sheet if necessary)*

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Copy to PDR and ACC 8-13-80

26. The applicant certifies that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information in this application is correct to the best of his/her knowledge.

27. AUTHORIZED OFFICIAL	a. SIGNATURE	b. TITLE
		Assistant Manager

GKSS

FORSCHUNGSZENTRUM GEESTHACHT GMBH

GKSS, Postfach 1160, 2054 Geesthacht

Reaktorstraße 7-9, 2054 Geesthacht
Telefon: 04152/1 21
Telex: 02 18 712 gkssg
Telegramm: GKSS - Geesthacht

Firma
NUKEM GmbH

6450 H a n a u

Ihr Zeichen:	Ihre Nachricht vom:	Unser Zeichen:	Bearbeiter:	Telefon-Durchwahl:	Datum:
		R-Dr.Kr/T	Dr. Krull	04152/12 203	14.7.1980

End Use Statement

The undersigner certifies that the following material, i.e.

6.500 kgs of uranium (45.4 % U-235 enriched)
in the form of UF_6 and containing 2.951 kgs
of U-235

which will be furnished to us under a Short-Term Fixed-Commitment Contract with US-DOE will be used for the reactors FRG-1 and FRG-2 at Geesthacht, Federal Republic of Germany.

NUKEM GmbH, D 6450 Hanau, Federal Republic of Germany shall perform conversion of the enriched UF_6 and manufacturing of 10 prototype-fuel elements.

We authorize Transnuclear Inc., Falls Church, Va., to apply for the US-export license.

GKSS-FORSCHUNGSZENTRUM GEESTHACHT GMBH

CHECKLIST FOR USE IN REVIEW OF REQUESTS FOR HIGHLY ENRICHED URANIUM TO DETERMINE TECHNICAL AND ECONOMIC JUSTIFICATION

Date July 1, 1980

1. Name of Facility: FRG-2
2. Quantity of Uranium Requested (Kgs): 6.5 *
3. Enrichment in the Isotope U-235 (%): 45.4
4. Sale or Toll Enriching: own material
5. Current Core Loading (Kgs of U-235): 7.7 without burnup
6. Current Power Level (MWth): 15 (21 in future) MW
7. Criticality and Full Operating Power Dates and Power Rating (if request involves new facility):
8. Name of Convertor and Fabricator of Fuel: NUKEM, Hanau
9. Breakdown of Fuel Inventory (Kgs of U-235):
   a. Amount of U-235 in Fabrication outside USA Including Scrap Allowances: 8.4
   b. Amount of U-235 in Storage in Completed, Unirradiated Fuel Elements: 26.6 kg
   c. Amount of U-235 in Core: 7.7 without burnup
   d. Amount of U-235 in Spent Fuel Storage within the Community Including Chemical Reprocessing Plants, and the Reprocessing Schedule for Such Material: 14.2 kg
   e. Amount of U-235 Lost and/or Consumed During Operation of Above Facility: burnup between 43 - 44 %
   f. Amount of U-235 per Fuel Element: 94, 180, 303 if 93 %; 280 g if 45 %
   g. Average Core Life: 5 weeks fuel cycle
   h. Average Lead Time for Conversion and Fuel Fabrication if Conversion and Fabrication is to be Done Abroad: 8 - 12 months

* This quantity is needed for the tests of 10 prototype fuel elements for the German enrichment reduction program.

AA/1574-2

CHECKLIST FOR USE IN REVIEW OF REQUESTS FOR HIGHLY ENRICHED URANIUM TO DETERMINE TECHNICAL AND ECONOMIC JUSTIFICATION

Date July 1, 80

1. Name of Facility: FRG-1
2. Quantity of Uranium Requested (Kgs): s. FRG-2
3. Enrichment in the Isotope U-235 (%): "
4. Sale or Toll Enriching: "
5. Current Core Loading (Kgs of U-235): 7.2 without burnup
6. Current Power Level (MWth): 5 MW
7. Criticality and Full Operating Power Dates and Power Rating (if request involves new facility):
8. Name of Convertor and Fabricator of Fuel: NUKEM
9. Breakdown of Fuel Inventory (Kgs of U-235):
   a. Amount of U-235 in Fabrication outside USA Including Scrap Allowances: s. FRG-2
   b. Amount of U-235 in Storage in Completed, Unirradiated Fuel Elements: s. FRG-2
   c. Amount of U-235 in Core: 7.2 without burnup
   d. Amount of U-235 in Spent Fuel Storage within the Community Including Chemical Reprocessing Plants, and the Reprocessing Schedule for Such Material: s. FRG-2
   e. Amount of U-235 Lost and/or Consumed During Operation of Above Facility: burnup between 43 % and 44 %
   f. Amount of U-235 per Fuel Element: s. FRG-2
   g. Average Core Life: 100 h - 110 h per week
   h. Average Lead Time for Conversion and Fuel Fabrication if Conversion and Fabrication is to be Done Abroad: 8 - 12 months

TRANSNUCLEAR, INC.

August 12, 1980

Mr. N. Moore
Nuclear Regulatory Commission
Office of International Programs
7735 Old Georgetown Road
Bethesda, Maryland 20014

Re: Export License Application
TN Ref: 80-168/01 (NUK-337)

Dear Mr. Moore:

Enclosed is an export license application for your handling on the following:

6.5 Kg U, containing 2.951 Kg U235,
enriched to 45.4 percent U235

Thanking you in advance for your help and cooperation.

Sincerely,

Vicki Matson
Assistant Manager
Washington Operations

Enclosure: Original E.U.S.
Reactor Checklist

VM/ma

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ONE SKYLINE PLACE • 5205 LEESBURG PIKE • FALLS CHURCH, VIRGINIA 22041
TELEPHONE: 703-820-2450 • CABLE: TRANSNUC FSCH • TELEX: 89-9463