



DEPARTMENT OF STATE

Washington, D.C. 20520

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U.S. MRS

BUREAU OF OCEANS AND INTERNATIONAL
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

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EXHIBIT REPORT
AND
INTERNATIONAL AFFAIRS

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

*XSNM01539 and
XSNM01626
HEU for Hoger Onderwijs,
Netherlands*

Dear Mr. Shea:

This letter is in response to the letters from your office dated July 19, and December 6, 1979, 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. XSNM01539 and XSNM01626 — Applications by Transnuclear, Inc., each requesting authorization to export to the Netherlands, via the Federal Republic of Germany and France, 2.806 kilograms of U-235 contained in 3.008 kilograms of uranium for a total of 5.612 kilograms of U-235 in 6.016 kilograms 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 UO₂. Either NUKEM or CERCA, Romans, France will fabricate the material into fuel elements for the Hoger Onderwijs Research Reactor at Delft.

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 the 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.

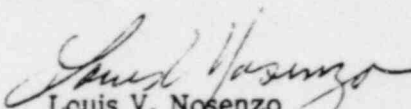
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The Hoger Onderwijs Reactor (HOR) is a 2 MW research facility operated by the Interuniversity Reactor Institute in Delft, Netherlands, for research and training. According to information furnished by the operator, a total of 5.1 kilograms of U-235 in fresh unirradiated fuel was on hand as of January 1, 1980 either in the form of completed elements or in process of fabrication at CERCA, an amount sufficient for operation until January 1, 1983. Reported yearly consumption of U-235 at current power level of 2 MW is 1.8 kilograms. The current combined request for 5.612 kilograms of U-235 would provide sufficient fuel to permit reactor operation through April 1986, when conversion to use of low-enriched fuel may be possible. Average lead time for conversion and fabrication of the HOR fuel elements is estimated to be 21 months.

The amount requested under XSNM01626, 2.806 kilograms U-235 is sufficient for an additional 1.7 years of operation, or from August 1984 until April 1986. Although conversion to use of lower enriched fuel may be possible by 1984, additional delays in obtaining the necessary authorization for use of the new fuel are anticipated, which make it more likely that conversion may not be accomplished until 1986. In view of the uncertainty in the schedule for conversion and the fact that processing these two small requests (XSNM01539 and -1626) separately would entail a substantial economic penalty in conversion and fabrication costs, which the reactor operator can ill afford on a tight research budget, it is recommended that both license requests be processed at this time.

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

July 30, 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:

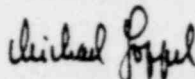
Subject: Transnuclear, Inc. application NUK 286 79-193/01
dated July 6, 1979 for the Netherlands - XSNMol539

We certify that the material mentioned in this application, namely 2.806 kilograms of U₂₃₅ contained in 3.008 kilograms of 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 Transnuklear, GmbH, Hanau, West Germany (for transport only), Nukem, GmbH, Hanau, West Germany (for conversion only), and CERCA, Romans, France (for manufacture of fuel elements only), as intermediate consignees, and the Interuniversitair Reactor Instituut, Delft, the Netherlands, as ultimate consignee, are authorized by EURATOM to receive and possess this material pursuant to the aforementioned Agreement for Cooperation.

The material after conversion by Nukem and the manufacture of fuel elements by CERCA will be used at the Hoger Onderwijs Reactor (HOR) in Delft - the Netherlands.

Sincerely,



M. Goppel

ajs

cc: ✓ Mr. Robin De LaBarre, State Department
Ms. Betty Wright, NRC
Ms. Vicki Matson, Transnuclear, Inc.

DELEGATION OF THE COMMISSION OF THE EUROPEAN COMMUNITIES

EURATOM SUPPLY AGENCY

January 15, 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:

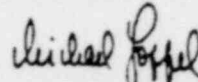
Subject: Transnuclear, Inc. application NUK 307 79-315/01
dated November 16, 1979 for the Netherlands -
XSNM01626

We certify that the material mentioned in this application, namely 2.806 kilograms of U235 contained in 3.008 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 Germany (for transport purposes only), and Nukem, GmbH, Hanau, West Germany (for conversion of UF₆ into uranium metal), and CERCA, Paris, France, or Nukem (for manufacture of fuel elements only), as intermediate consignees, and the Interuniversitair Reactor Instituut (I.R.I.), Delft, the Netherlands, as ultimate consignee, are authorized by EURATOM to receive and possess this material pursuant to the aforementioned Agreement for Cooperation.

The material, in the form of UF₆ enriched to a maximum of 93.3% U235, will be converted from UF₆ into U metal and used in the fabrication of fuel elements for the I.R.I. Hoger Onderwijs Reactor in Delft - the Netherlands.

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.

U.S. NUCLEAR REGULATORY COMMISSION
**APPLICATION FOR LICENSE TO EXPORT NUCLEAR
MATERIAL AND EQUIPMENT** (See Instructions on Reverse)

1. APPLICANT'S USE		a. DATE OF APPLICATION 7/6/79		b. APPLICANT'S REFERENCE NUK 286 79-193/01		2. NRC USE XSNR01539		c. DOCKET NO. 11000712	
3. APPLICANT'S NAME AND ADDRESS				RIS		4. SUPPLIER'S NAME AND ADDRESS (Complete if applicant is not supplier of material) U.S.D.O.E.			
a. NAME Transnuclear, Inc.						a. NAME c/o Goodyear Atomic Corp.			
b. STREET ADDRESS One Skyline Place, 5205 Leesburg Pike						b. STREET ADDRESS Route One			
c. CITY Falls Church		STATE VA	ZIP CODE 22041		c. CITY Piketon		STATE OH	ZIP CODE 45661	
d. TELEPHONE NUMBER (Area Code - Number - Extension) (703) 820-2450									
5. FIRST SHIPMENT SCHEDULED		6. FINAL SHIPMENT SCHEDULED		7. APPLICANT'S CONTRACTUAL DELIVERY DATE To be determined		8. PROPOSED LICENSE EXPIRATION DATE One year from date of issuance		9. U.S. DEPARTMENT OF ENERGY CONTRACT NO. (If Known) none assigned to date	
10. ULTIMATE CONSIGNEE				RIS		11. ULTIMATE END USE (Include plant or facility name) 01 Will be used for the manufacture of fuel elements for the Hoger Onderwijs Reactor at Delft, The Netherlands			
a. NAME Hoger Onderwijs Reactor						11a. EST. DATE OF FIRST USE			
b. STREET ADDRESS Interuniversitair Reactor Institut						13. INTERMEDIATE END USE			
c. CITY - STATE - COUNTRY Delft, The Netherlands						Nukem shall perform conversion of UF6 into U metal. CERCA shall manufacture fuel elements.			
12. INTERMEDIATE CONSIGNEE				RIS		13a. EST. DATE OF FIRST USE			
a. NAME Nukem, GmbH, D-645 Hanau, Fed. Rep. of Germany						15. INTERMEDIATE END USE			
b. STREET ADDRESS CERCA, Romans, France						Intermediate for transport purposes only.			
c. CITY - STATE - COUNTRY						15a. EST. DATE OF FIRST USE			
14. INTERMEDIATE CONSIGNEE				RIS					
a. NAME Transnuklear, GmbH									
b. STREET ADDRESS 645 Hanau, Postfach 110030 Wolfgang-bei-Hanau Industriegebiet									
c. CITY - STATE - COUNTRY Hessen, W. Germany									
16. NRC USE 103	17. DESCRIPTION (Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components) Uranium in the form of uranium hexafluoride enriched to a maximum of 93.3 percent.					18. MAX. ELEMENT WEIGHT 3.008 Kg U	19. MAX. WT. % 93.3%	20. MAX. ISOTOPE WT. 2.806 Kg U235	21. UNIT Kgs
22. COUNTRY OF ORIGIN - SOURCE MATERIAL			23. COUNTRY OF ORIGIN - SNM WHERE ENRICHED OR PRODUCED U.S.			24. COUNTRIES WHICH ATTACH SAFEGUARDS (If Known)			
25. ADDITIONAL INFORMATION (Use separate sheet if necessary) <i>Duke 7905100516</i> *Copy to PDR and ACC <u>7-13-79</u> * 60025									
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 <i>[Signature]</i>				b. TITLE Asst. Mgr. Wash. Oper. Transnuclear, Inc.			

Briefkopf IRI - Delft

To whom it may concern

End Use Statement

The undersigned certify that the following material, i.e. 3.008 kgs of uranium (93.3 per cent U-235 enriched) in the form of UF₆ and containing 2.806 kgs of U-235 which will be furnished to us under a Fixed Commitment Contract with US-DOE will be used for the Hoger Onderwijs Reactor of the Interuniversitair Reactor Institut, Delft, The Netherlands.

NUKEM GmbH, D-6450 Hanau, Federal Republic of Germany shall perform the conversion work for us. Manufacturing of the fuel elements shall be performed by CERCA..... (bitte einsetzen)

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

Signature IRI:

date:

Institute Director:

Delft, 11th June 1979

Drs. J. Boersma

~~Head Reactor Operations:~~

~~F.M. de Meulemeester~~

In absence:

Deputy Head Reactor Operations:

S. van der Veen

[Handwritten signature]

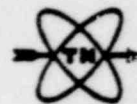
CHECKLIST FOR USE IN REVIEW OF REQUESTS FOR
HIGHLY ENRICHED URANIUM TO DETERMINE
TECHNICAL AND ECONOMIC JUSTIFICATION

Date 11th June 1979

1. Name of Facility: Hoger Onderwijs Reactor (HOR), Delft, The Netherlands
2. Quantity of Uranium Requested (Kgs): 3.0 kg
3. Enrichment in the Isotope U-235 (%): 93%
4. Sale or Toll Enriching: Sale
5. Current Core Loading (Kgs of U-235): 4.2 kg
6. Current Power Level (MWth): 2
7. Criticality and Full Operating Power Dates and Power Rating (if request involves new facility): -
8. Name of Converter and Fabricator of Fuel: NUKEM GmbH, Hanau, Federal Republic of Germany
Element Fabricator: CERCA, Paris, France
9. Breakdown of Fuel Inventory (Kgs of U-235):
 - a. Amount of U-235 in Fabrication outside USA Including Scrap Allowances: 3.8 kg
 - b. Amount of U-235 in Storage in Completed, Unirradiated Fuel Elements: 1.9 kg
 - c. Amount of U-235 in Core: 4.2 kg
 - d. Amount of U-235 in Spent Fuel Storage within the Community Including Chemical Reprocessing Plants, and the Reprocessing Schedule for Such Material: 1.9 kg in storage, of which 1.3 kg is to be reprocessed in 79-80
 - e. Amount of U-235 Lost and/or Consumed During Operation of Above Facility: 0.6 kg consumed during operation in 1 year, 2 MW
 - f. Amount of U-235 per Fuel Element: 190 g
 - g. Average Core Life: 4 years
 - h. Average Lead Time for Conversion and Fuel Fabrication if Conversion and Fabrication is to be Done Abroad: 21 months

TRANSNUCLEAR, INC.

RECEIVED
U.S. NRC



1979 JUL 10 AM 10 13

EXPORT/IMPORT
AND
INTERNAT'L SFGROS

July 6, 1979

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

Re: Export License Application - TN Ref: 79-193/01 (NUK-286)

Dear Mr. Moore:

Attached please find an Export License Application for your handling on the following:

3.008 Kg U, containing 2.806 Kg U235
enriched to 93.30 percent U235.

Thanking you in advance for your help and cooperation.

Sincerely,

Vicki Matson
Assistant Manager - Washington Operations

Enclosure: Original E.U.S.
Original Reactor Checklist

VM/ma

*D-79-
7908100514*

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

1. APPLICANT'S USE		a. DATE OF APPLICATION November 16, 1979		b. APPLICANT'S REFERENCE NUK 307.79-315/01		2. NRC USE		a. LICENSE NO. XSNMO 1626		b. DOCKET NO. 11000 932			
3. APPLICANT'S NAME AND ADDRESS						RIS		4. SUPPLIER'S NAME AND ADDRESS (Complete if applicant is not supplier of material) RIS U.S.D.O.E.					
a. NAME Transnuclear, Inc.						b. STREET ADDRESS One Skyline Place, 5205 Leesburg Pike							
c. CITY Falls Church				STATE VA		ZIP CODE 22041		a. NAME c/o Goodyear Atomic Corp.					
d. TELEPHONE NUMBER (Area Code - Number - Extension) 703-820-2450						b. STREET ADDRESS Route One				c. CITY Piketon			
STATE OH		ZIP CODE 45661		5. FIRST SHIPMENT SCHEDULED		6. FINAL SHIPMENT SCHEDULED		7. APPLICANT'S CONTRACTUAL DELIVERY DATE To be determined		8. PROPOSED LICENSE EXPIRATION DATE One year from date of issuance			
9. U.S. DEPARTMENT OF ENERGY CONTRACT NO. (If Known)						none assigned to date							
10. ULTIMATE CONSIGNEE						RIS							
a. NAME I.R.I.-Interuniversitair Reactor Instituut						11. ULTIMATE END USE (Include plant or facility name) 01 Will be used for the manufacture of fuel elements for the Hoger Onderwijs Reactor at Delft, The Netherlands. (See attached End Use Statement)							
b. STREET ADDRESS Mekelweg 15, 2629 JB Delft						11a. EST. DATE OF FIRST USE							
c. CITY - STATE - COUNTRY The Netherlands						12. INTERMEDIATE CONSIGNEE							
RIS						13. INTERMEDIATE END USE Nukem shall perform conversion of UF6 into U metal. Either Nukem, GmbH, W. Germany or Cerca, France shall manufacture fuel elements.							
a. NAME Nukem, GmbH, D-645 Hanau, Fed. Rep. of Germany						13a. EST. DATE OF FIRST USE							
b. STREET ADDRESS CERCA, Romans, France						14. INTERMEDIATE CONSIGNEE							
c. CITY - STATE - COUNTRY						RIS							
14. INTERMEDIATE CONSIGNEE						15. INTERMEDIATE END USE Intermediate for transport purposes only							
a. NAME Transnuklear, GmbH						15a. EST. DATE OF FIRST USE							
b. STREET ADDRESS 645 Hanau, Postfach 110030 Wolfgang-bei-Hanau Industriegelände						16. NRC USE							
c. CITY - STATE - COUNTRY Hessen, W. Germany						17. DESCRIPTION (Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components)							
16. NRC USE		17. DESCRIPTION				18. MAX. ELEMENT WEIGHT		19. MAX. WT. %		20. MAX. ISOTOPE WT.		21. UNIT	
103		Uranium in the form of uranium hexafluoride enriched to a maximum of 93.3 percent.				3.008 Kg U		93.3%		2.806 Kg U235		Kgs	
22. COUNTRY OF ORIGIN - SOURCE MATERIAL						23. COUNTRY OF ORIGIN - SNM WHERE ENRICHED OR PRODUCED U.S.		24. COUNTRIES WHICH ATTACH SAFEGUARDS (If Known) EURATOM					
25. ADDITIONAL INFORMATION (Use separate sheet if necessary) Copy to FDR and AUC 11-30-79 Done 7902170393 00010 4-22-80													
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 <i>[Signature]</i>			b. TITLE Asst. Mgr. Wash. Oper. Transnuclear, Inc.				



To whom it may concern

Uw kenmerk Uw brief d.d. Ons kenmerk Delft,

Onderwerp

End Use Statement

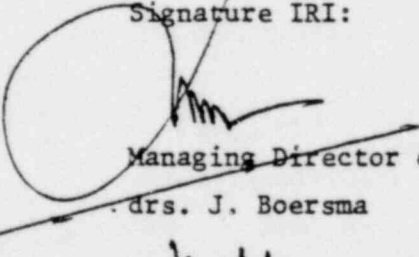
The undersigned certify that the following material, i.e. 3.008 kgs of uranium (93.3 per cent U-235 enriched) in the form of UF₆ and containing 2.806 kgs of U-235 which will be furnished to us under a Fixed Commitment Contract with US-DOE will be used for the Hoger Onderwijs Reactor of the Interuniversitair Reactor Instituut, Delft, The Netherlands.

NUKEM GmbH, D-6450 Hanau, Federal Republic of Germany shall perform the conversion work for us. Manufacturing of the fuel elements shall be performed by CERCA, France or NUKEM, Western Germany.

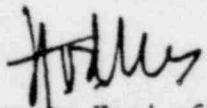
We authorize Transnuclear Inc., Falls Church, Va., to apply for the export license.

Signature IRI:

date: October 26th, 1979


Managing Director of Institute

drs. J. Boersma


Deputy Head of Reactor Operations

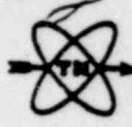
S. van der Veen

POOR ORIGINAL

Date 11th June 1979

1. Name of Facility: Hoger Onderwijs Reactor (HOR), Delft, The Netherlands
2. Quantity of Uranium Requested (Kgs): 3.0 kg
3. Enrichment in the Isotope U-235 (%): 93%
4. Sale or Toll Enriching: Sale
5. Current Core Loading (Kgs of U-235): 4.2 kg
6. Current Power Level (MWth): 2
7. Criticality and Full Operating Power Dates and Power Rating (if request involves new facility): -
8. Name of Converter and Fabricator of Fuel: NUKEM GmbH, Hanau, Federal Republic of Germany
Element Fabricator: CERCA, Paris, France
9. Breakdown of Fuel Inventory (Kgs of U-235):
 - a. Amount of U-235 in Fabrication outside USA Including Scrap Allowances: 3.8 kg
 - b. Amount of U-235 in Storage in Completed, Unirradiated Fuel Elements:
1.9 kg
 - c. Amount of U-235 in Core: 4.2 kg
 - d. Amount of U-235 in Spent Fuel Storage within the Community Including Chemical Reprocessing Plants, and the Reprocessing Schedule for Such Material:
1.9 kg in storage, of which 1.3 kg is to be reprocessed in 79-80
 - e. Amount of U-235 Lost and/or Consumed During Operation of Above Facility:
0.6 kg consumed during operation in 1 year, 2 MW
 - f. Amount of U-235 per Fuel Element: 190 g
 - g. Average Core Life: 4 years
 - h. Average Lead Time for Conversion and Fuel Fabrication if Conversion and Fabrication is to be Done Abroad:
21 months

TRANSNUCLEAR, INC.

Elaine?
Betty

11/19/79

November 16, 1979

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

Re: Export License Application - TN Ref: 79-315/01 (NUK-307)

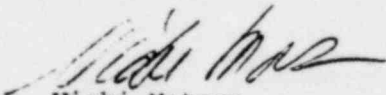
Dear Mr. Moore:

Attached please find an Export License Application for your handling on the following:

3.008 Kg U, containing 2.806 Kg U235
enriched to 93.30 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

EXPORT/IMPORT
AND
INTERNATIONAL SFGRDS

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RECEIVED
U.S. NRC

Dupe
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