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.
	May 20, 1981	(NUK-375) 81-I63/01 81-I64/01		XSNM01824	11002489

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 Commission of the European Communities (J.R.C.)		Will be used for the H.F.R. Reactor at Petten, Netherlands (See attached End Use Statement)
b. STREET ADDRESS Petten Establishment, Postbus 2, 1755ZG		
c. CITY – STATE – COUNTRY Petten, The Netherlands		11a. EST. DATE OF FIRST USE

12. INTERMEDIATE CONSIGNEE	RIS	13. INTERMEDIATE END USE
a. NAME Nukem, GmbH		Conversion and fabrication of fuel 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 trnasport purposes only.
b. STREET ADDRESS 645 Hanau, Postfach 110030, Wolfgang-bei-Hanau Industriegelände		
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 93.30 percent U235	18.045 Kg U	93.3%	16.836 KgU	Kg
		20.050 Kg U	93.3%	18.707 KgU	Kg
		38.095		35.543	

RECEIVED JUN 01 1981 U.S. NUCLEAR REGULATORY COMMISSION

RECEIVED U.S. NRC

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

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

8106080003

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
	Vicki Matson	Assistant Manager, Wash. Opers.

Commission of the European Communities

JOINT RESEARCH CENTRE

Petten Establishment

Postbus 2, 1755 ZG Petten, The Netherlands
Tel. (02246) 6442 - Telex 57211 REACP

81/163/01

TO WHOM IT MAY CONCERN

END USE STATEMENT

The undersigner certifies that the following material, i.e. 18.045 kgs of uranium (93,3% U-235 enriched) in the form of UF_6 and containing 16.836 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 reactor at Petten, Netherlands.

NUKEM GmbH, D6450 HANAU, Federal Republic of Germany shall perform the conversion work for us. Manufacturing of the fuel elements shall be performed by NUKEM, Hanau.

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

Petten, 27 th April 1981
For the Commission of the
European Communities

P.J. VAN WESTEN
(Director)

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

Date, 23rd April 1981

1. Name of Facility : High Flux Reactor
2. Quantity of Uranium Requested (Kgs) : 18 kgs
3. Enrichment in the Isotope U-235 (%) : 93,3 %
4. Sale or Toll Enriching : (referring to our 9th and 10th shipment to SRP)
5. Current Core Loading (Kgs of U-235) : 11,1 kgs
6. Current Power Level (MWth) : 45
7. Criticality and Full Operating Power Dates and Power Rating (if request involves new facility) : --
8. Name of Convertor and Fabricator of Fuel : Nukem GmbH
   Hanau, Federal REpublic of Germany
9. Breakdown of Fuel Inventory (Kgs of U-235) : as per 15th April 1981
   a). Amount of U-235 in Fabrication outside USA, Including Scrap (%) :

   Allowances : 51,8 kg (Manufacturers plant)

   b). Amount of U-235 in Storage in Completed, Unirradiated Fuel Elements : HFR Vault 23,2 kgs

   c). Amount of U-235 in Core : ~~11,1 kgs~~

   d). Amount of U-235 in Spent Fuel Storage within the Community Including Chemical Reprocessing Plants, and the Reprocessing Schedule for such Material :

   a) in HFR pools ; 22kgs (86 -75%)

   b) Savannah River plant (reprocessed) : 29 kg (75%)
   c) to be reprocessed at Savannah plant : 15 kg (75%)

   e). Amount of U-235 Lost and/or Consumed During Operation of Above Facility : consumption approx 16 kg / year
   losses approx 470 gms/year in fabrication plant

   f). Amount of U-235 per Fuel Element : approx. 405 gms/element

   g). Average Core Life : 28 days

   h). Average Lead Time for Conversion and Fuel Fabrication if Conversion and Fabrication is to be Done Abroad :

   Average 12 - 15 months

Commission of the European Communities

JOINT
RESEARCH
CENTRE

87 164/10

Petten Establishment

Postbus 2, 1755 ZG Petten, The Netherlands
Tel. (02240) 6442 - Telex 57211 REACP

TO WHOM IT MAY CONCERN

END USE STATEMENT

The undersigner certifies that the following material, i.e. 20.050 kgs of uranium (93,3 % U-235 enriched) in the form of UF_6 and containing 18.707 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 reactor at Petten, 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 NUKEM, Hanau.

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

Petten, ...17. April.....1981
For the Commission of the
European Communities

P.J. VAN WESTEN
(DIRECTOR)

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

Date, 23rd April 1981

1. Name of Facility : HIGH FLUX REACTOR

2. Quantity of Uranium Requested (Kgs) : 20 kgs

3. Enrichment in the Isotope U-235 (%) : 93,3 %

4. Sale or Toll Enriching : (fresh supply for 1981)

5. Current Core Loading (Kgs of U-235) : 11,1 kgs

6. Current Power Level (MWth) : 45

7. Criticality and Full Operating Power Dates and Power Rating (if request involves new facility) : --

8. Name of Convertor and Fabricator of Fuel : Nukem GmbH

   Hanau, Federal Republic of Germany

9. Breakdown of Fuel Inventory (Kgs of U-235) : as per 15th April 1981

   a). Amount of U-235 in Fabrication outside USA, Including Scrap (%) :

   Allowances : 51,8 kgs (maufacturers plant)

   b). Amount of U-235 in Storage in Completed, Unirradiated Fuel Elements : HFR Vault 23,2 kgs

   c). Amount of U-235 in Core : 11,1 kgs

   d). Amount of U-235 in Spent Fuel Storage within the Community Including Chemical Reprocessing Plants, and the Reprocessing Schedule for such Material :

   a) in HFR pools : 22 kgs (86- 75%)

   b) Savannah River plant (reprocessed): 29 kg (75%)
   c) to be reprocessed at Savannah River plant : 15 kg (75%)

   e). Amount of U-235 Lost and/or Consumed During Operation of Above Facility : consumption : approx. 16 kg / year
   losses : approx. 400 gms / year

   f). Amount of U-235 per Fuel Element : approx. 405 gms / element

   g). Average Core Life : 28 days

   h). Average Lead Time for Conversion and Fuel Fabrication if Conversion and Fabrication is to be Done Abroad :

   Average 12 - 15 months