



North Carolina State University

Office of the Chancellor

Box 7001, Raleigh 27695-7001
(919) 737-2191

July 19, 1985

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

RE: Docket No. 50-297

SUBJECT: Facility License No. R-120, NCSU PULSTAR Amendment No. 6, issued
September 17, 1980

Dear Sir:

Paragraph 2.B.(2) of our current Facility License, the subject of Amendment No. 6 noted above, authorizes in part possession of "...no more than 1.0 kilogram of highly enriched uranium,..." We wish to delete the reference to HEU in Paragraph 2.B.(2) because this facility no longer possesses HEU fuel.

North Carolina State University (NCSU) requested on January 4, 1980 to amend the R-120 Facility License, said request specifying possession and use of four (4) unirradiated HEU fuel assemblies and one (1) Pu-Be neutron source transferred from the NCSU R-63 Facility (now decommissioned). No practical use for these fuel assemblies was realized so in April 1984, the HEU items were delivered to the Savannah River Plant by our staff. Shipping document copies are attached.

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Director of Nuclear Reactor Regulation

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July 19, 1985

We, therefore, request that Paragraph 2.B.(2) of the NCSU PULSTAR Facility License No. R-120 be amended to read as follows:

- (2) Pursuant to the Act and Title 10, Chapter I, CFR, Part 70, "Special Nuclear Material", to receive, possess, and use in connection with operation of the reactor up to 435 kilograms of uranium and up to 200 grams of plutonium-239 in the form of plutonium-beryllium neutron sources.

Should additional information be required to process this request, please notify us without delay.

Sincerely,

Bruce R. Poulton
for Bruce R. Poulton
Chancellor

BRP/TCB:edt

Attachments: (1) DOE/NRC Form 741 (2 sheets)

(2) NCSU Radioactive Material Shipping Document (3 sheets)

cc: Dr. James A. Mulholland, Chairman, RPC, w/attachments

Mr. Garry D. Miller, Associate Director, NRP, w/attachments

Sue H. West
Sue H. West, Notary

My Commission expires July 8, 1986

RADIOACTIVE MATERIAL SHIPPING DOCUMENT

Name and Address of Shipper: Department of Nuclear Engineering
North Carolina State University
Box 7909
Raleigh, NC 27695-7909

Name and Address of Receiver: E. I. DuPont de Nemours
Savannah River Plant
Aiken, SC 29808
Attn: W. T. Dickinson

Date Shipped April 17, 1984 From North Carolina State Univ.

Ship Via NCSU Vehicle

Description:

Radioactive material, Fissile, N.O.S. UN2918(284 grams)

U enriched (> 20%)

Solid, UAL

Curies .01988

Labelled Radioactive Yellow III, Transportation Index 57

WARNING: Fissile Class III shipment. DO NOT load more than 2 packages per vehicle.

In loading and storage areas, keep at least 20 feet (6 meters) from other packages bearing "Radioactive" labels.

This is to certify that the above described materials are properly classified, described, packaged, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signed: Thomas A. Drabkin

Receiver's Signature

W. T. Dickinson

Date:

4-17-84

RADIOACTIVE MATERIAL SHIPPING DOCUMENT

Name and Address of Shipper: Department of Nuclear Engineering
North Carolina State University
Box 7909
Raleigh, NC 27695-7909

Name and Address of Receiver: E. I. DuPont de Nemours
Savannah River Plant
Aiken, SC 29808
Attn: W. T. Dickinson

Date Shipped April 18, 1984 From N. C. State University

Ship Via NCSU Vehicle

Description:

Radioactive material, Fissile, N.O.S. UN2918(283 grams)

U enriched (> 20%)

Solid, UAL

Curies .01981

Labelled Radioactive Yellow III, Transportation Index 57

WARNING: Fissile Class III shipment. DO NOT load more than 1 packages per vehicle.

In loading and storage areas, keep at least 20 feet (6 meters) from other packages bearing "Radioactive" labels.

This is to certify that the above described materials are properly classified, described, packaged, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signed: Thomas R. Jackson

Receiver's Signature W. L. Jett Date: 4/15/84

RADIOACTIVE MATERIAL SHIPPING DOCUMENT

Name and Address of Shipper: Department of Nuclear Engineering
North Carolina State University
Box 7909
Raleigh, NC 27695-7909

Name and Address of Receiver: E. I. DuPont de Nemours
Savannah River Plant
Aiken, SC 29808
Attn: W. T. Dickinson

Date Shipped April 17, 1984 From N. C. State University

Ship Via NCSU Vehicle

Description:

Radioactive material, Fissile, N.O.S. UN2918(80 grams)

U enriched (> 20%)

Encased in plastic plates

Curies .0056

Labelled Radioactive Yellow III, Transportation Index 16

WARNING: Fissile Class III shipment. DO NOT load more than 2 packages per vehicle.

In loading and storage areas, keep at least 20 feet (6 meters) from other packages bearing "Radioactive" labels.

This is to certify that the above described materials are properly classified, described, packaged, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signed: Thomas A. Beachin

Signature

[Signature]

Date: 4-17-84

U.S. DEPARTMENT OF ENERGY AND U.S. NUCLEAR REGULATORY COMMISSION
NUCLEAR MATERIAL TRANSACTION REPORT

Revised by GAO
038-R0478
Approved by GAO
B-180225 (R0040)
Expires 6-30-83

1. SHIPPER'S RIS (1-4)	2. RECEIVER'S RIS (5-8)	3. TRANSACTION NO. (9-12)	4. CORRECTION NO. (13-16)	5. PROCESSING CODE (17)	6. RESERVED (18-21)	7. ACTION CODE (22)	8. DATA CODE (23)	DOCUMENTATION (Only if document is classified SECRET)					
ZPY	DZA	5		SHIPPER A	RECEIVER	SHIPPER B	RECEIVER	PAGE	OF PAGES COPY OF COPIES SERIES				
9. A. NAME AND ADDRESS OF SHIPPER Department of Nuclear Engineering North Carolina State University Raleigh, NC 27695-7909 C. ATTENTION: T. L. Brackin O. TELEPHONE: (919) 737-3385		10. A. NAME AND ADDRESS OF RECEIVER E. I. DuPont de Nemours Savannah River Plant Aiken, SC 29808 C. ATTENTION: W. T. Dickinson O. TELEPHONE: (803) 725-3358		11. NO. OF DATA LINES (1-20-21) Same as #9		12. NATURE OF TRANSACTION (1-22) D		13. A. SHIPPED FOR ACCOUNT OF B. RIS (1-23-28) ZPY		14. A. SHIPPED TO ACCOUNT OF B. RIS (1-27-30) Same as #10		15. DISTRIBUTION OF COPIES 1. DZA-ZPY 2. DZA 3. DZA-QFA 4. QFA 5. ZPY	
16. TRANSFER AUTHORITY: CONTRACT, NM DRAFT, OR ORDER NUMBER (1-34-80) Letter, DOE, SR00, to Tom Brackin, NCSU, dated 15 March 1984				17. MATERIAL TYPE AND DESCRIPTION Uranium enriched in U-235 > 20% unirradiated				18. EXPORT OR IMPORT TRANSFERS: A. LICENSE NO. (1-32-33) B. U.S. PORT EXIT ENTRY (3-32-35)				19. PACKAGE IDENTIFICATION A. MODEL ID B. NUMBER C. ACTION DATE MONTH DAY YEAR 04 18 84	
20. A. MISCELLANEOUS SR00 Contract No. DE-AC 09-76SR00001				21. A. MISCELLANEOUS B. Concise Note Attached Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> C. Concise Note Attached Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				22. TOTAL GROSS WEIGHT (4157-55) 50 lbs.				23. TOTAL VOLUME (When Transfers Only) (4157-75)	

LINE NO. 238 (700-271)	TYPE OF CHANGE (239-241)	IDENTIFICATION (BATCH NAME) (2134-281)	NO. OF ITEMS (2140-431)	PROJECT NUMBER (2144-531)	MATERIAL TYPE (2154-58)	COMPLIANCE FACILITY CODE (2155-58)	PROD CODE (2160)	OWNER CODE (2161)	COUNTRY CONTROL NUMBER (2162-68)	KEY MEAS POINT (2170-71)	MEAS IDENT (2172-74)			GROSS WEIGHT (4157-55)	NET WEIGHT (4157-55)	ELEMENT WEIGHT (4143-53)	ELEMENT LIMIT OR ERROR (5154-58)	WEIGHT % ISOTOPE (5158-64)	ISOTOPE WEIGHT (5165-75)	ISOTOPE LIMIT OR ERROR (5175-80)		
											1 (2172-73)	2 (2173-74)	3 (2174-75)									
01		U enriched-235	2					A	US-US-00-00				50 lbs.			303		93.59	283			
24. SHIPPER'S DATA SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED: Thomas L. Brackin April 16, 1984																					25. RECEIVER'S DATA SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED: J. L. Lorton 4/18/84 SHIPPER'S VALUES ACCEPTED	

U.S. DEPARTMENT OF ENERGY AND U.S. NUCLEAR REGULATORY COMMISSION
NUCLEAR MATERIAL TRANSACTION REPORT038-R0478/1
Approved by GAO
B-180225 (R040)
Expires 6-30-88

1. SHIPPER'S RIS (1-4)	2. RECEIVER'S RIS (5-8)	3. TRANSACTION NO. (9-12)	4. CORRECTION NO. (13-16)	5. PROCESSING CODE (17)	6. RESERVED (18)	7. ACTION CODE (19)	8. DATA CODE (20)	DOCUMENTATION (Only if document is classified SECRET)															
ZPY	DZA	4		SHIPPER	RECEIVER A	SHIPPER B	RECEIVER		PAGE	OF	PAGES	COPY	OF	COPIES	SERIES								
9. A. NAME AND ADDRESS OF SHIPPER		B. LICENSE NO. R-120,92-090		10. NAME AND ADDRESS OF RECEIVER		B. LICENSE NO.		11. NO. OF DATA LINES (1-20 21)		12. NATURE OF TRANSACTION (1-22)		13. A. SHIPPED FOR ACCOUNT OF											
Department of Nuclear Engineering North Carolina State University Raleigh, NC 27695-7909 C. ATTENTION T. L. Brackin D. TELEPHONE (919) 737-3385				E. I. DuPont de Nemours Savannah River Plant Aiken, SC 29808 C. ATTENTION W. J. Dickinson D. TELEPHONE (803) 725-3358				Same as #9		D		Same as #10											
15. TRANSFER AUTHORITY - CONTRACT, NM DRAFT, OR ORDER NUMBER (1-34-50)								16. EXPORT OR IMPORT TRANSFERS A. LICENSE NO. (1-22 21)								17. MATERIAL TYPE AND DESCRIPTION							
Letter, DOE, SROO, to Tom Brackin, NCSU, dated March 15, 1984.								B. U.S. PORT EXIT/ENTRY (1-22 21)								Uranium enriched in U-235 > 20% unirradiated							
21. A. MISCELLANEOUS								B. CONCISE NOTE ATTACHED Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								C. CONCISE NOTE ATTACHED Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>							
SROO Contract No. DE-AC 09-76SRO0001 SROO Loan Number NET61/4-5																							
								22. TOTAL GROSS WEIGHT (4-57 58) 60 lbs.								23. TOTAL VOLUME (Waste Transfer Only) (4-57 75)							

LINE NO. (20 21)	TYPE OF TRANSFER (22 23)	IDENTIFICATION (BATCH NAME) (24 25)	NO. OF ITEMS (26 27)	PROJECT NUMBER (28 29)	DATE (30 31)	COMP. FACILITY CODE (32 33)	PROD. NUMBER CODE (34 35)	COUNTRY CONTROL NUMBER (36 37)	KEY MEAS. POINT (38 39)	NEAS. IDENT. (40 41)			GROSS WEIGHT (42 43)	NET WEIGHT (44 45)	ELEMENT WEIGHT (46 47)	ELEMENT LIMIT OF ERROR (48 49)	WEIGHT N. (50 51)	ISOTOPE WEIGHT (52 53)	ISOTOPE LIMIT OF ERROR (54 55)
										1 BASIS (40)	2 OMP (41)	3 MULTIPLE (42)							
01	A	U enriched-235	3					US-US-00-00				60 lbs.			389		93.59	364	
24. SHIPPER'S DATA																			
SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED (See instructions for provisions regarding confidentiality)																			
Thomas J. Brackin April 16, 1984																			
25. RECEIVER'S DATA																			
SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED (See instructions for provisions regarding confidentiality)																			
4-17-84																			
Shippers Values Accepted																			