
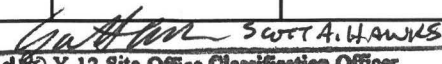


NRC FORM 7 (02-2016) 10 CFR 110		 U. S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3150-0027		EXPIRES: 11/30/2018	
<p align="center"> APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) <i>(See Instructions on Pages 4 and 5)</i> </p>							
PART A. FOR NRC USE ONLY				<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC		DATE RECEIVED August 5, 2019; szf	
LICENSE NUMBER XSNM3810		DOCKET NUMBER 11006361		ADAMS ACCESSION NUMBER			
PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS, OR CONSENT REQUESTS (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)							
1. NAME AND ADDRESS OF APPLICANT/LICENSEE U. S. Department of Energy (DOE) National Nuclear Security Administration (NNSA) Y-12 National Security Complex 301 Bear Creek Road Oak Ridge, TN 37831				1a. NAME OF APPLICANT'S CONTACT Becky G. Eddy		1b. APPLICANT'S REFERENCE NUMBER IRE-EU19	
				1c. PHONE NUMBER (865) 576-4119		1d. FAX NUMBER (865) 574-0492	
				1e. E-MAIL ADDRESS Becky.Eddy@npo.doe.gov			
2. TYPE OF ACTION REQUESTED (Check One)							
<input checked="" type="checkbox"/> EXPORT (Parts B, C, E)		<input type="checkbox"/> IMPORT (Parts B, D, E)		<input type="checkbox"/> AMENDMENT/RENEWAL Current License Number:		<input type="checkbox"/> CONSENT REQUEST (Parts B, C) Current License Number:	
3. CONTRACT NUMBER(S) NNSA-SC16-Y12-0707		4. FIRST SHIPMENT DATE 10/1/2019		5. LAST SHIPMENT DATE 3/31/2020		6. PROPOSED EXPIRATION DATE 3/31/2020	
PART C. TO BE COMPLETED FOR EXPORT LICENSES, AMENDMENTS, OR RENEWALS (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)							
7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPORT DOE NNSA Y-12 National Security Complex 301 Bear Creek Road Oak Ridge, TN 37831			8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S) Framatome 54 Avenue De La Déportation ZI Les Bérauds 26104 Romans Sur Isère, France			9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) Institute for Radioelements (IRE) Avenue de l'Espérance 1 B-6220 Fleurus, Belgium	
7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED Supplier/Transporter			8a. INTERMEDIATE USE(S) Target Fabrication			9a. ULTIMATE END USE(S) Medical Isotope Production	
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT 4.455 kg uranium-235 contained in a maximum of 4.772 kg uranium, enriched to maximum of 93.35%, in the form of unalloyed broken metal				10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) 4.772 KG		10b. MAX ENRICHMENT OR WGT % 93.35%	10c. MAX ISOTOPE WGT (KG) 4.455 KG
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) None				<div style="border: 2px solid black; padding: 5px; text-align: center;"> APPROVED FOR PUBLIC RELEASE This document has been approved for release to the public by:  SCOTT A. HAWKINS Y-12 Site Office Classification Officer </div>			

NRC FORM 7
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U. S. NUCLEAR REGULATORY COMMISSION

**APPLICATION FOR NRC EXPORT OR IMPORT
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)**


LICENSE NUMBER XSNM3810	DOCKET NUMBER 11006361	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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PART D. TO BE COMPLETED FOR IMPORT LICENSES, AMENDMENTS, OR RENEWALS

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

12. NAME(S) / ADDRESS(ES) OF FOREIGN SUPPLIERS AND/OR OTHER PARTIES TO IMPORT	13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S)	14. NAME(S) / ADDRESS(ES) OF ULTIMATE U. S. CONSIGNEE(S)	
12a. NRC EXPORT LICENSE NUMBER(S) <i>(if applicable)</i>	13a. LICENSE NUMBER(S) / EXPIRATION DATE(S)	14a. LICENSE NUMBER(S) / EXPIRATION DATE(S)	
	13b. INTERMEDIATE USE(S)	14b. ULTIMATE END USE(S)	
15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES	15a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)	15b. MAX ENRICHMENT OR WGT %	15c. MAX ISOTOPE WGT (KG)
16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)			

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS OR CONSENT REQUEST(S)

17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED? <input type="checkbox"/> YES <input type="checkbox"/> NO	
18. CERTIFICATION: I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge.		
18a. PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL Becky G. Eddy DOE NNSA Production Office, Program Manager	18b. SIGNATURE -- AUTHORIZED OFFICIAL 	18c. DATE 07/31/2019

NRC FORM 7
(02-2016)
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U. S. NUCLEAR REGULATORY COMMISSION

**APPLICATION FOR NRC EXPORT OR IMPORT
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)**

LICENSE NUMBER XSNM3810	DOCKET NUMBER 11006361	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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ADDITIONAL INFORMATION (Reference applicable block numbers from page 1 and/or page 2 for each entry)

Part B. Blocks 4 and 5:

Dates do not reflect actual ship dates. Time-frame indicated for shipment to support target fabrication, target irradiation and processing schedules to meet one year isotope production demand until conversion to LEU targets.

Part C: Blocks 7 and 7a, Suppliers and/or Other Parties to the Export:

Consolidated Nuclear Security (CNS) L.L.C.
301 Bear Creek Road
Oak Ridge, TN 37831
(DOE/NNSA Supply and Transport Contractor)

Part C: Blocks 8 and 8a, Intermediate Foreign Consignee(s):

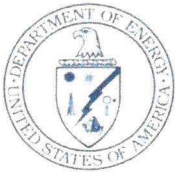
ORANO TN International
1, rue des Hérons
78180 Montigny-le- Bretonneux
France
(Transporter)

Studiecentrum Voor Kernenergie (SCK-CEN)
Boeretang 200
BE-2400 Mol
Belgium
BR-2 Research Reactor (Target Irradiation)

Nuclear Research and Consultancy Group (NRG)
Westerduinweg 3
1755 LE Petten
The Netherlands
HFR Research Reactor (Target Irradiation)

Nuclear Research Institute, Rez, plc
Husinec - Řež 130
Cz- 250 68 Řež
Czech Republic
LVR-15 Research Reactor (Target Irradiation)

National Center for Nuclear Research (NCBJ)
Andrzej Soltan 7
05-400 Otwock-Świerk
Poland
Maria Research Reactor (Target Irradiation)



**Department of Energy
National Nuclear Security Administration
Production Office**

P.O. Box 2050
Oak Ridge, TN 37831

P.O. Box 30030
Amarillo, TX 79120



July 31, 2019

Mr. David Skeen, Deputy Director
Office of International Programs
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852-2738

Dear Mr. Skeen:

**APPLICATION TO EXPORT ENRICHED URANIUM TO THE INSTITUTE FOR
RADIOELEMENTS FOR USE IN THE PRODUCTION OF MEDICAL ISOTOPES**

On behalf of the Institute for Radioelements (IRE), enclosed is a Department of Energy (DOE), National Nuclear Security Administration (NNSA) application to export enriched uranium to IRE for use in the production of medical isotopes. The enriched uranium will be exported to Framatome's facility in Romans, France for use in the fabrication of targets and subsequent target irradiation in the High Flux Research Reactor in the Netherlands, the BR-2 Reactor in Belgium, the LVR-15 Research Reactor in Czechia, and the Maria Research Reactor in Poland. The irradiated targets will be transferred to the IRE isotope production facility in Fleurus, Belgium, where Molybdenum-99 (Mo-99) and Iodine-131 (I-131) will be extracted to satisfy nuclear medicine demand.

This application covers the total estimated quantity of highly enriched uranium required by IRE to sustain Mo-99 and I-131 production from the 4th Quarter of 2020 through the projected completion of the LEU conversion program in the 2nd Quarter of CY 2022.

The application, NRC Form 7 (Enclosure 1), has been determined to be unclassified, non-sensitive. However, Enclosure 2 contains commercial proprietary information prepared by IRE that has been determined to be business sensitive and shall be handled as Official Use Only and cannot be made available to the public.

I respectfully request that NRC expedite the review process to minimize risk associated with interruption in IRE supply of isotopes to meet nuclear medicine demand.

Enclosure 2 Transmitted Herewith Contains
Official Use Only - Commercial Proprietary
Information. When Separated from Enclosure 2,
this document is Unclassified/Nonsensitive
and Approved for Public Release

OFFICIAL USE ONLY

Mr. Skeen

-2-

July 31, 2019

APPLICATION TO EXPORT ENRICHED URANIUM TO THE INSTITUTE FOR
RADIOELEMENTS FOR USE IN THE PRODUCTION OF MEDICAL ISOTOPES

If you have any questions or require additional information, please contact me at
(865) 576-4119 or becky.eddy@npo.doe.gov.

Sincerely,



Becky G. Eddy
Program Manager
NNSA Production Office

Enclosures:

- 1) NRC Form 7 (IRE-EU19)
- 2) IRE Checklist (supporting information)

cc w/enclosures:

- B. Cox, NA-23, FOR/Portals III
- M. Einwechter, NPO-70, 301BCR
- B. Wilhoit, 301BCR, MS 8112, CNS, Y-12