

NRC FORM 7  
(11-2012)  
10 CFR 110

U. S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0027

EXPIRES: (11/30/2015)

**APPLICATION FOR NRC EXPORT OR IMPORT  
LICENSE, AMENDMENT, RENEWAL,  
OR CONSENT REQUEST(S)**  
(See Instructions on Pages 4 and 5)

Estimated burden per response to comply with this mandatory collection request: 2.4 hours. This submittal is reviewed to ensure that the applicable statutory, regulatory, and policy considerations are satisfied. Send comments regarding burden estimate to the Information Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [Infocollects.Resource@nrc.gov](mailto:Infocollects.Resource@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0027), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

<b>PART A. FOR NRC USE ONLY</b>	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC	DATE RECEIVED <b>SEP 22 2014</b> <i>Rec'd JC</i>
LICENSE NUMBER <b>XSNM3755</b>	DOCKET NUMBER <b>11006174</b>	ADAMS ACCESSION NUMBER <b>ML14265A475</b>

**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 NRG-EU15
	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-SC12-Y12-1215	4. FIRST SHIPMENT DATE February 1, 2015	5. LAST SHIPMENT DATE November 1, 2015	6. PROPOSED EXPIRATION DATE December 31, 2015
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**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) AREVA CERCA BP 1114 Usine des Barauds 26104 Romans sur Isere France	9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) Nuclear Research and Consultancy Group Westerduinweg 3 1755 LE Petten, Netherlands
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7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED Supplier/Transporter	8a. INTERMEDIATE USE(S) Target Fabrication	9a. ULTIMATE END USE(S) Target Irradiation/Mo-99 Production
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10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT 3.73 kg uranium-235 contained in maximum of 4.00 kg uranium, enriched to maximum 93.35 weight %, in the form of broken metal	10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) 4.00 kg U	10b. MAX ENRICHMENT OR WGT % 93.35 wt %	10c. MAX ISOTOPE WGT (KG) 3.73 kg U-235
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**APPROVED FOR PUBLIC RELEASE**  
This document has been approved for release to the public by  
*[Signature]* SWT A. HAWKS 9/17/14  
NPO Y-12 Site Office Classification Officer Date

11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) 100% US Obligation	SEP 22 2014 <i>Rec'd JC</i>
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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 <b>XSNM 3755</b>	BUCKET NUMBER <b>1100 6174</b>	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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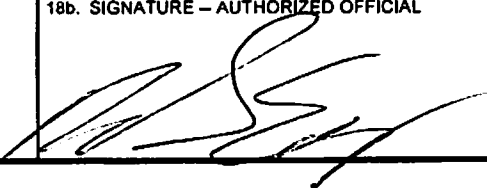
**PART D. TO BE COMPLETED FOR IMPORT LICENSES, AMENDMENTS, OR RENEWALS**

(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) (if applicable)	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 Sept. 18, 2014

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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 XSNM 3755	DOCKET NUMBER 11006174	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. 4 and 5: Dates do not reflect actual ship dates 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.

Page 1, Block 7 and 7a, Other Parties to Export:

7. Consolidated Nuclear Security (CNS) L.L.C.  
301 Bear Creek Road  
Oak Ridge, TN 37831

7a. DOE/NNSA Contractor for Supply/Transport

Page 1, Block 8 and 8a, Intermediate Foreign Consignee(s):

8. CERCA means "Compagnie pour l'Etude et la Réalisation de Combustibles Atomiques"

8a. For fabrication of targets to be used for Molybdenum (Mo)-99 production until conversion to LEU targets is implemented.

8. AREVA TN International  
as agent for CERCA  
1, rue des Hérons  
78180 Montigny-le- Bretonneux  
France

8a. Transporter

8. High Flux Reactor (HFR)  
Westerduinweg 3  
1755 LE Petten  
Netherlands

BR-2 Reactor  
Boeretang 200  
B-2400 Mol  
Belgium

Maria Reactor  
05-400 Otwock-Świerk  
Poland

8a. Target irradiation in the High Flux Reactor (Petten, The Netherlands), BR-2 Reactor (Mol, Belgium), and Maria Reactor (Otwock-Świerk, Poland).

8. Mallinckrodt Molybdenum Production Facility  
Westerduinweg 3,  
1755 LE Petten,  
Netherlands

8a. Mo-99 extraction at the Mallinckrodt Molybdenum Production Facility (Petten, The Netherlands).

SEP 22 2014 Recd  
JC



**U.S. Department of Energy**  
 NNSA Production Office  
 Post Office Box 2050  
 Oak Ridge, Tennessee 37831-8009



September 18, 2014

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

*XSNM 3755*  
 SEP 22 2014 *rec'd*  
*Jc*

Dear Mr. Shaffer:

**APPLICATION TO EXPORT ENRICHED URANIUM TO THE NUCLEAR RESEARCH AND CONSULTANCY GROUP FOR USE IN THE PRODUCTION OF MEDICAL ISOTOPES**

Enclosed is a Department of Energy (DOE), National Nuclear Security Administration (NNSA), application to export enriched uranium to the Nuclear Research and Consultancy Group (NRG) for use in the production of medical isotopes. The enriched uranium will be exported to the Compagnie pour l'Etude et la Réalisation de Combustibles Atomiques (CERCA) Romans facility in France for exclusive 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, and the Maria Reactor in Poland. The irradiated targets will be transferred to the Mallinckrodt isotope production facility in Petten, Netherlands, where Molybdenum-99 and other isotopes will be extracted to satisfy nuclear medicine demand.

The application, NRC Form 7 (Enclosure 1), has been determined to be unclassified, non-sensitive. However, Enclosure 2 contains commercial proprietary information prepared by NRG that has been determined to be business sensitive and shall be handled as Official Use Only and cannot be released to the public. An Interagency Agreement, DE-NA0002451, between NNSA and the Nuclear Regulatory Agency (NRC) is in place for NRC services and fees, and sufficient funds are available for processing this application.

Enclosure 2 Transmitted Herein Contains  
 Official Use Only - Commercial Proprietary  
 Information

When Separated from Enclosure 2, this document is  
 Unclassified/Nonsensitive  
 and Approved for Public Release

Mr. Shaffer  
Application to Export to NRG

XSNM 3 755

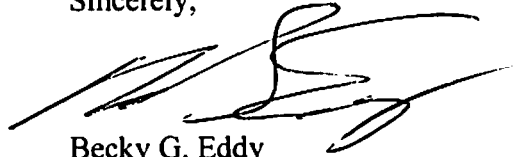
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SEP 22 2014 rec'd JC

NRG is actively working with the United States Government to implement a plan to convert to low enriched uranium targets used for medical isotope production. In the interest of supporting the production of medical isotopes, the NNSA Production Office requests that the review process be executed to support issuance of the export license by February 2015.

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

Sincerely,



Becky G. Eddy  
Program Manager  
NNSA Production Office/Y-12

Enclosure:

- 1) NRC Form 7 (NRG-EU15)
- 2) NRG Checklist (supporting information)

cc w/enclosure:

B. Wilhoit, 301BCR, MS 8112, CNS LLC