


<b>NRC FORM 7</b> (11-2012) 10 CFR 110		 <b>U. S. NUCLEAR REGULATORY COMMISSION</b>		<b>APPROVED BY OMB: NO. 3150-0027</b>		<b>EXPIRES: (11/30/2015)</b>	
<p align="center"><b>APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S)</b> (See Instructions on Pages 4 and 5)</p>							
<b>PART A. FOR NRC USE ONLY</b>			<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC			DATE RECEIVED <b>SEP 12 2013</b> <i>JC</i>	
LICENSE NUMBER <b>XSNM 3730/01</b>			DOCKET NUMBER <b>11006054</b>			ADAMS ACCESSION NUMBER	
<b>PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS, OR CONSENT REQUESTS</b> (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 <b>Becky G. Eddy</b>		1b. APPLICANT'S REFERENCE NUMBER <b>NRG-EU-13R</b>		
			1c. PHONE NUMBER <b>(865) 576-4119</b>		1d. FAX NUMBER <b>(865) 574-0492</b>		
			1e. E-MAIL ADDRESS <b>becky.eddy@npo.doe.gov</b>				
2. TYPE OF ACTION REQUESTED (Check One)							
<input type="checkbox"/> EXPORT (Parts B, C, E)		<input type="checkbox"/> IMPORT (Parts B, D, E)		<input checked="" type="checkbox"/> AMENDMENT/RENEWAL Current License Number:		<input type="checkbox"/> CONSENT REQUEST (Parts B, C) Current License Number:	
<p align="center">XSNM-3730</p>							
3. CONTRACT NUMBER(S) <b>NNSA-SC12-Y12-1215</b>		4. FIRST SHIPMENT DATE <b>March 1, 2013</b>		5. LAST SHIPMENT DATE <b>January 31, 2015</b>		6. PROPOSED EXPIRATION DATE <b>June 30, 2015</b>	
<b>PART C. TO BE COMPLETED FOR EXPORT LICENSES, AMENDMENTS, OR RENEWALS</b> (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 <b>DOE/NNSA          Y-12 National Security Complex          301 Bear Creek Road          Oak Ridge, TN 37831</b>			8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S) <b>AREVA CERCA          BP 1114          Usine des Barauds          26104 Romans sur Isere          France</b>			9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) <b>Nuclear Research and consultancy Group          Westerduinweg 3          1755 LE Petten,          Netherlands</b>	
7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED <b>Supplier/Transporter</b>			8a. INTERMEDIATE USE(S) <b>Target Fabrication</b>			9a. ULTIMATE END USE(S) <b>Target Irradiation/Mo-99 Production</b>	
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT <b>9.4 kg uranium-235 contained in maximum of 10.1 kg uranium, enriched to maximum 93.35 weight %, in the form of broken metal (previously shipped in Spring 2013)</b>  <b>7.7 kg uranium-235 contained in maximum of 8.3 kg uranium, enriched to maximum 93.35 weight %, in the form of broken metal</b>				10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) <b>10.1 kg U</b>  <b>8.3 kg U</b>		10b. MAX ENRICHMENT OR WGT % <b>93.35 wt %</b>  <b>93.35 wt %</b>	10c. MAX ISOTOPE WGT (KG) <b>9.4 kg U-235</b>  <b>7.7 kg U-235</b>
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) <b>100% US Obligation</b>							
<p align="right"><b>SEP 12 2013</b> <i>JC</i></p>							

NRC FORM 7  
(11-2012)  
10 CFR 110

U. S. NUCLEAR REGULATORY COMMISSION


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

LICENSE NUMBER <i>XSNM 3730/01</i>	DOCKET NUMBER <i>11006054</i>	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 checked="" 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 <i>9/9/2013</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 XSNM3730/01	DOCKET NUMBER 11006054	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. 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. B&W Technical Services Y-12 L.L.C.  
301 Bear Creek Road  
Oak Ridge, TN 37831

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-99 (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

Page 1, Block 9, Intermediate Foreign Consignee:

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

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BR-2 Reactor  
Boeretang 200  
B-2400 Mol  
Belgium

Maria Reactor  
05-400 Otwock-Świerk  
Poland

Mallinckrodt Molybdenum Production Facility (previously was Covidien)  
Westerduinweg 3,  
1755 LE Petten,  
Netherlands

9a. Target irradiation in the High Flux Reactor (Petten, The Netherlands), BR-2 Reactor (Mol, Belgium), and Maria Reactor (Otwock-Świerk, Poland), and Mo-99 extraction at the Mallinckrodt Molybdenum Production Facility (Petten, The Netherlands).



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



September 10, 2013

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

XSNM 3730/01

SEP 12 2013  
JC

Dear Mr. Shaffer:

**APPLICATION TO AMEND EXPORT LICENSE XSNM-3730 TO ADD INTERMEDIATE FOREIGN CONSIGNEE AND 2014 DELIVERY FOR ENRICHED URANIUM SUPPLIED 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 amend export license XSNM-3730. The license amendment is required to add an intermediate foreign consignee involved in the production of the medical isotope Molybdenum-99 for the Nuclear Research and Consultancy Group (NRG). Export License XSNM-3730 was issued on March 5, 2013, to authorize export of enriched uranium feedstock for NRG to the Compagnie pour l'Etude et la Réalisation de Combustibles Atomiques (CERCA) Romans facility in France for use in the fabrication of targets and subsequent irradiation in the HFR Reactor in the Netherlands and the BR-2 Reactor in Belgium. The irradiated targets will be transferred to the Mallinckrodt (previously was Covidien) isotope production facility in Petten, Netherlands, where Molybdenum-99 and other isotopes will be extracted to support medical isotope demand.

**This application requests that the Maria Reactor in Poland be added as an intermediate foreign consignee, where enriched uranium targets will be irradiated to support Molybdenum-99 production and to increase the maximum enriched uranium quantity to address a delivery in 2014.**

The application to amend XSNM-3730, NRC Form 7 (Enclosure 1), has been determined to be unclassified, non-sensitive. Enclosure 2 contains commercial proprietary information prepared by NRG that has been determined to be business sensitive and should be handled as Official Use Only and cannot be released to the public. An Interagency Agreement between DOE and NRC was executed on April 15, 2009, for NRC export licensing services and fees, and sufficient funds are available for processing this export license.

Enclosure 2 transmitted herein contains  
**Official Use Only.** When separated from Enclosure 2,  
handle as Unclassified Nonsensitive.

**OFFICIAL USE ONLY**

Mr. Shaffer

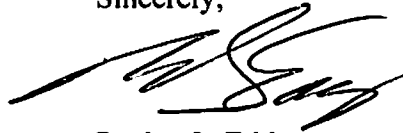
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September 10, 2013

NRG is actively working with the U.S 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 January 2014.

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-EU13-R)
- 2) NRG Checklist (supporting information)

cc w/enclosure:

T. Nelson, 301BCR, MS 8112, B&W Y-12

cc w/o enclosure:

J. Albaugh, NPO-50, Y-12

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