

NRC FORM 7
(8-2010)
10 CFR 110

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0027

EXPIRES: 08/31/2012

**APPLICATION FOR NRC EXPORT OR IMPORT
LICENSE, AMENDMENT, OR RENEWAL***(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 Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to 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.

PART A. FOR NRC USE ONLY	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC	DATE RECEIVED SEP 24 2010
LICENSE NUMBER PXB143.00	DOCKET NUMBER	ADAMS ACCESSION NUMBER

PART B. TO BE COMPLETED FOR ALL 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.)*

1. NAME AND ADDRESS OF APPLICANT/LICENSEE The Curators of the University of Missouri University of Missouri Research Reactor 1513 Research Park Columbia, MO 65211	1a. NAME OF APPLICANT'S CONTACT John Ernst	1b. APPLICANT'S REFERENCE NUMBER N/A	
	1c. PHONE NUMBER (573) 882-5226	1d. FAX NUMBER (573) 882-6360	
	1e. E-MAIL ADDRESS ernstj@missouri.edu		
2. TYPE OF ACTION REQUESTED <i>(Check One)</i> <input checked="" type="checkbox"/> EXPORT (Parts B, C, E) <input type="checkbox"/> IMPORT (Parts B, D, E) <input type="checkbox"/> AMENDMENT/RENEWAL Existing License Number: _____			
3. CONTRACT NUMBER(S) N/A	4. FIRST SHIPMENT DATE 09/29/2010	5. LAST SHIPMENT DATE 09/29/2015	6. PROPOSED EXPIRATION DATE 09/29/2015

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 N/A	8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S) DHL Global Forwarding NV/SA (Belgium) (Acting for MDS Nordion S.A.) Building 765 B - 1931 Brucargo BELGIUM SEE ADDITIONAL SHEETS	9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) MDS Nordion S.A. Avenue de L'Esperance 1 Fleurus 6220 BELGIUM SEE ADDITIONAL SHEETS	
7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED N/A	8a. INTERMEDIATE USE(S) Import and delivery	9a. ULTIMATE END USE(S) MEDICAL DEVICE	
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT Ir-192 solid metal	10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) See attached.	10b. MAX ENRICHMENT OR WGT % N/A, no special nuclear material licensed	10c. MAX ISOTOPE WGT (KG) N/A, no special nuclear material licensed
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) Belgium, 32%; Netherlands, 68%			

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

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS

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 checked="" type="checkbox"/> YES <input type="checkbox"/> NO
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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 Ralph A. Butler Director, Research Reactor Center	18b. SIGNATURE - AUTHORIZED OFFICIAL <i>John Ernst</i> for <i>Ralph Butler</i>	18c. DATE 9-22-10
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Rec'd
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Jc

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ADDITIONAL INFORMATION (Reference applicable block numbers from page 1 and/or page 2 for each entry)

8. ADDITIONAL INTERMEDIATE FOREIGN CONSIGNEES:

Kuehne + Nagel N.V. (Acting for Mallinckrodt Medical – dba Covidien Pharmaceuticals)
Lloydstraat 35
Rotterdam NL-3024 EA
NETHERLANDS

8A. INTERMEDIATE USES

Import into respective country and final delivery to ultimate consignee.

9. ADDITIONAL ULTIMATE FOREIGN CONSIGNEES :

Mallinckrodt Medical – dba Covidien Pharmaceuticals
Westerduinweg 3
Petten 1755 ZG
NETHERLANDS

9A. FINAL USES

Manufacturing of the activated metal into medical device.

Maximum activity of Ir-192 (TBq):

Ultimate Consignee:	MDS Nordion	Mallinckrodt Medical
Per Shipment:	37 TBq	78 TBq
Life of License (5 years)*:	9620 TBq	20280 TBq

*Assumes maximum of 52 shipments per year, each year for the life of the license.

Rec'd
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Research Reactor Center
University of Missouri-Columbia

Research Park Drive
Columbia, MO 65211-3400
PHONE (573) 882-4211
FAX (573) 882-6360
WEBSITE <http://web.missouri.edu/~murrwww>

September 22, 2010

Stephen Baker
Office of International Programs
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Mr. Baker,

Pursuant to our phone conversation on September 22, 2010, enclosed you will find an application for a license to permit the export of byproduct material.

As stated in the application, the requested iridium-192 will be used by the recipient to manufacture a medical device for the treatment of cancer in humans. The routine supply of this isotope from European reactors has been disrupted due to unanticipated maintenance activities. The companies listed have found it necessary to request routine shipments from our facility in order to meet the medical community needs. A shipment has been requested for as soon as September 30, 2010 and weekly thereafter for the foreseeable future. The University and the end users would appreciate any effort by the NRC to expedite this license application.

If you should have any questions regarding the content of our application, please contact John Ernst, our Associate Director for Regulatory Assurance, at (573)882-5226, or ernstj@missouri.edu.

Sincerely,

John Ernst
Ralph Butler *for Ralph Butler*

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