

NRC FORM 7  
(3-2010)  
10 CFR 110

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0027

EXPIRES: 08/31/2012

# APPLICATION FOR NRC EXPORT/IMPORT LICENSE, AMENDMENT, OR RENEWAL

(See Instructions on Page 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.

<b>PART A. FOR NRC USE ONLY</b>		<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC	DATE RECEIVED <b>SEP 23 2010</b>
LICENSE NUMBER <b>PCB 140.00</b>	DOCKET NUMBER	ADAMS ACCESSION NUMBER	

## PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS OR NOTIFICATIONS

(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 <b>University of Maryland, Baltimore 714 west Lombard Street Baltimore, Maryland 21201</b>		1a. NAME OF APPLICANT'S CONTACT <b>Paul James Demopoulos</b>	1b. APPLICANT'S REFERENCE NUMBER <b>MDE-07-014-01</b>
		1c. PHONE NUMBER <b>(410) 706-6281</b>	1d. FAX NUMBER <b>(410) 706-1520</b>
		1e. E-MAIL ADDRESS	
2. TYPE OF ACTION REQUESTED (Check One) <input type="checkbox"/> EXPORT (Parts B, C, E) <input type="checkbox"/> NOTIFICATION OF EXPORT OF INCIDENTAL RADIOACTIVE MATERIAL (PART C, E) <input type="checkbox"/> IMPORT (Parts B, D, E) <input checked="" type="checkbox"/> COMBINED EXPORT/IMPORT (Parts B, C, D, E) <input type="checkbox"/> AMENDMENT/RENEWAL Existing License Number: _____			
3. CONTRACT NUMBER(S)	4. FIRST SHIPMENT DATE <b>09/15/2010</b>	5. LAST SHIPMENT DATE <b>02/28/2011</b>	6. PROPOSED EXPIRATION DATE <b>07/31/2017</b>

## PART C. TO BE COMPLETED FOR EXPORT ONLY OR COMBINED 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		8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S)		9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) <b>Best Theratronics 413 March Road Ottawa, Ontario K2K 0E4 Canada Ultimate End Use Best Theratronics accepts return sources from customers for inspection, disposal, recycling or reuse.</b>	
7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED		8a. INTERMEDIATE USE(S)		9a. ULTIMATE END USE(S)	
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT <b>Cesium 137 Sealed sources Chemical form: Element Physical form: Solid Device: Gammacell 3000</b>		10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) <b>112.8 TBq * Nominal activity (max) of the device 562 TBq (1,140 curies)</b>		10b. MAX ENRICHMENT OR WGT %	
				10c. MAX ISOTOPE WGT (KG)	
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) <b>* See email dated 9-23-10, revising activity of Cs-137</b>					

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JC



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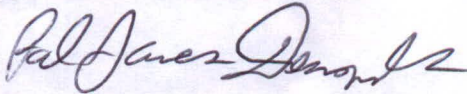
APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER <b>PCB140.00</b>	DOCKET NUMBER	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 ONLY, OR COMBINED 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  <b>Best Theratronics 413 March Road Ottawa, Ontario K2K 0E4 Canada NRC Export License Number</b>	13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S)	14. NAME(S) / ADDRESS(ES) OF ULTIMATE 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  <b>Cesium 137 Sealed sources Chemical form: Element Physical form: Solid Device: Gammacell 3000</b>	15a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)  <b><del>112.8</del> TBq 56 TBq (1,520 curies)</b>	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, 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
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 <b>Paul James Demopoulos</b>	18b. SIGNATURE -- AUTHORIZED OFFICIAL 
18c. DATE <b>8/9/2010</b>	

SEP 23 2010

JC



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**APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)**

LICENSE NUMBER <b>PCB140.00</b>	DOCKET NUMBER	ADAMS ACCESSION NUMBER	<input checked="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)

Check enclosed for \$4600.00 made out to US NRC.

*Rec'd*  
SEP 23 2010  
*JC*

## Baker, Stephen

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**From:** Demopoulos, Paul [pdemopoulos@af.umaryland.edu]  
**Sent:** Thursday, September 23, 2010 3:23 PM  
**To:** Baker, Stephen  
**Subject:** RE: Review of draft license PCB140.00  
**Attachments:** USNRC Import Export Gammacell 1000 and 3000.pdf

Dear Steve,

The 112.8 TBq Cs-137 value was from the directions that Best Theratronics provided that are attached. This is the maximum activity that can be loaded into the Gamma Cell 3000 model that we were ordering. The actual activity is 56 TBq that we will receive and we will return about 42 TBq Cs-137.

Hope this helps,

Thanks,

Paul

Paul J. Demopoulos, M.S., CHP  
Radiation Safety Officer - EHS  
University of Maryland at Baltimore  
714 West Lombard Street  
Baltimore, MD 21201  
Phone: 410-706-6281  
Fax: 410-706-8212  
email: [pdemopoulos@af.umaryland.edu](mailto:pdemopoulos@af.umaryland.edu)

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**From:** Baker, Stephen [mailto:Stephen.Baker@nrc.gov]  
**Sent:** Thursday, September 23, 2010 03:00 PM  
**To:** Demopoulos, Paul  
**Subject:** RE: Review of draft license PCB140.00

*Reed*  
**SEP 23 2010**  
*JC*

Paul:

Thanks for the reply.

I was reviewing your application and noticed that I had annotated the application where the activity of your sources were provided. Notably, on the export section, where you had indicated 112.8 TBq, I wrote '42 TBq,' and on the import section where it also read 112.8 TBq, I wrote '56 TBq.'

This is significant in that if either entry should have been 112.8 TBq, you would need a Category 1 authority, as 112.8 TBq exceeds the Category 2 threshold for Cs-137 of 100 TBq.

While I recall us talking about this and resolving it over the phone, for our records, please explain where the 112.8 TBq entry came from and why these figures were reduced on the application.

Thanks, Paul.

Stephen Baker  
U.S. Nuclear Regulatory Commission





09 May 2008

**Subject: Import and/or Export License Application for a Gammacell 1000 and Gammacell 3000**

To Whom It May Concern:

The US Nuclear Regulatory Commission has revised the import/exports regulations in 10 CFR 110 to remove the general license for the importation exportation of Cesium 137. Since December 28, 2005, a specific license is required to import or export quantities of Cesium 137 that exceed 1 TBq (27 Ci). Section 10 CFR 110.32 outlines the information required in the application for a specific license.

Best Theratronics now requires a copy of the import license prior to shipping a Gammacell 1000 or Gammacell 3000 to a customer situated in the United States. As well, Best Theratronics also requires a copy of the export license prior to shipping a source from a customer in the United States back to Canada.

The import or export application must be completed on the attached revised NRC Form 7. The application must be submitted along with the applicable fees.

Please refer to 10 CFR 170.31 for the complete and current list of fees for shipments to or from Canada.

Please note that the fees may not apply to non-profit educational institutions.

In cases of exports to Canada, licensees are also required to notify the Canadian Nuclear Safety Commission not less than 24 hours in advance of each shipment with the details required by 10 CFR 110.50 (b) (4). Notifications can be sent by fax or email to:

Canadian Nuclear Safety Commission  
Non-Proliferation and Export Controls Division  
613-995-5086 fax  
[export.import@cnsccsn.gc.ca](mailto:export.import@cnsccsn.gc.ca)

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JC

## Information Required on NRC Form 7.

### Part B.

1. Name and address of applicant.
  - This is your information.
2. Type of NRC License Requested.
  - To ship a returned Gammacell 1000/3000 to Best Theratronics, check the Export box.
  - To receive a Gammacell 1000/3000 from Best Theratronics, check the Import box.
  - To receive a Gammacell 1000/3000 and dispose of an old device check the Combined Export/Import box.
3. The Contract number box is not applicable.
4. The date of the anticipated shipment date.
5. The last shipment date should be at least six months from the anticipated shipment date. In the case of multiple Gammacell 1000/3000 orders over several months, provide the anticipated last shipment date.
6. The date of your license expiry.

### Part C – To be completed for Exports from the United States

7. Unless there is another party involved in returning the Gammacell 1000/3000 this box should be left empty.
8. This box should be left empty.
9. Enter:
  - Best Theratronics
  - 413 March Road
  - Ottawa, Ontario
  - K2K 0E4
  - Canada
  - Ultimate End Use
  - Best Theratronics accepts return sources from customers for inspection, disposal, recycling or reuse.
10. Description of the sealed sources
  - Cesium 137
  - Sealed sources
  - Chemical form: Element
  - Physical form: Solid
  - Device: Gammacell 1000 or Gammacell 3000

Total Activity

  - Activity of the decayed sources.
11. This box does not apply.

*Rec'd*  
**SEP 23 2010**  
*JC*



**Part D – To be completed for Import into the United States**

12. Enter: Best Theratronics  
413 March Road  
Ottawa, Ontario  
K2K 0E4  
Canada  
NRC Export License Number
- Applies to sources originally exported under a specific NRC license. In most cases there is no export license number.
13. This box should be left empty.
14. Complete this box only if the consignee is not the same as in box 1.
15. Description of the sealed sources
- Cesium 137
  - Sealed sources
  - Chemical form: Element
  - Physical form: Solid
  - Device is the Gammacell 1000 or Gammacell 3000
- Total Activity
- Maximum activity of Gammacell 1000 is 112.8 TBq (3048Ci).
  - Maximum activity of Gammacell 3000 is 112.8 TBq (3048 Ci).
16. This box does not apply.

**Part E**

17. Additional Information.
- For exports shipment to Best Theratronics, attach a copy of Best Theratronics' license.
18. Please complete.

The import permit application should be sent to the following location:

Mr. Scott Moore,  
Deputy Director  
Office of International Programs  
Mail Stop: 4E21  
U.S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, Maryland  
20852-2738

*Rec'd*  
SEP 23 2010  
*Jc*

Should you have any questions or require further information, please do not hesitate to contact customer service by telephone at (613) 591-2100 ext. 1090 or by fax at (613)

592-6627.

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JC