

# APPLICATION FOR LICENSE TO ~~EXPORT~~ <sup>IMPORT</sup> NUCLEAR MATERIAL AND EQUIPMENT

(See Instructions on Reverse)

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 Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to [infocollections@nrc.gov](mailto:infocollections@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.

|   |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
|---|--|--|--|---|--|---|--|---|--|-------------------------------------|--|----------|--|
| 1. APPLICANT'S USE  |  | a. DATE OF APPLICATION<br>11/14/05   |  | b. APPLICANT'S REFERENCE  |  | 2. NRC USE  |  | a. DOCKET NUMBER  |  | b. LICENSE NUMBER<br><b>IRF0013</b> |  |          |  |
| 3. APPLICANT'S NAME AND ADDRESS   |  |  |  |   |  | 4. SUPPLIER'S NAME AND ADDRESS<br>(Complete if applicant is not supplier) |  |   |  |                                     |  |          |  |
| a. NAME<br>Cold Spring Harbor Laboratory  |  |  |  |   |  | a. NAME<br>MDS Nordion  |  |   |  |                                     |  |          |  |
| b. STREET ADDRESS (Facility Site)<br>1 Bungtown Road  |  |  |  |   |  | b. STREET ADDRESS<br>447 March Road                                       |  |   |  |                                     |  |          |  |
| c. CITY<br>Cold Spring Harbor   |  | d. STATE<br>NY   |  | e. ZIP CODE<br>11724  |  | c. CITY<br>Ottawa, Ontario  |  | d. STATE<br>Canac                                       |  | e. ZIP CODE<br>K2K 1X8              |  |          |  |
| f. TELEPHONE NUMBER<br>(516) 367-8852   |  | g. FAX<br>(516) 367-6873   |  | h. E-MAIL<br><a href="mailto:hubert@cshl.edu">hubert@cshl.edu</a> |  | c. CITY<br>Ottawa, Ontario  |  | d. STATE<br>Canac                                       |  | e. ZIP CODE<br>K2K 1X8              |  |          |  |
| 5. FIRST SHIPMENT SCHEDULED   |  | 6. FINAL SHIPMENT SCHEDULED  |  | 7. APPLICANT'S CONTRACTUAL DELIVERY DATE                          |  | 8. PROPOSED LICENSE EXPIRATION DATE                                       |  | 9. CONTRACT NO.   |  |                                     |  |          |  |
|   |  |  |  |   |  | 12/31/2006  |  | 2005-PM-056A  |  |                                     |  |          |  |
| 10. ULTIMATE FOREIGN CONSIGNEE  |  |  |  |   |  | 11. ULTIMATE END USE<br>(Include plant or facility name)                  |  |   |  |                                     |  |          |  |
| a. NAME<br>NA   |  |  |  |   |  | NA  |  |   |  |                                     |  |          |  |
| b. STREET ADDRESS (Facility Site)<br>NA   |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
| c. CITY<br>NA   |  |  |  | d. COUNTRY<br>NA  |  | 11a. DATE REQUIRED  |  |   |  |                                     |  |          |  |
| 12. INTERMEDIATE FOREIGN CONSIGNEE  |  |  |  |   |  | 13. INTERMEDIATE END USE  |  |   |  |                                     |  |          |  |
| a. NAME<br>NA   |  |  |  |   |  | NA  |  |   |  |                                     |  |          |  |
| b. STREET ADDRESS (Facility Site)<br>NA   |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
| c. CITY<br>NA   |  |  |  | d. COUNTRY<br>NA  |  | 13a. DATE REQUIRED  |  |   |  |                                     |  |          |  |
| 14. INTERMEDIATE FOREIGN CONSIGNEE  |  |  |  |   |  | 15. INTERMEDIATE END USE  |  |   |  |                                     |  |          |  |
| a. NAME<br>NA   |  |  |  |   |  | NA  |  |   |  |                                     |  |          |  |
| b. STREET ADDRESS (Facility Site)<br>NA   |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
| c. CITY<br>NA   |  |  |  | d. COUNTRY<br>NA  |  | 15a. DATE REQUIRED  |  |   |  |                                     |  |          |  |
| 16. COM CODE  |  | 17. DESCRIPTION<br>(Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components)   |  |   |  | 18. MAX. ELEMENT WEIGHT   |  | 19. MAX. WT. %  |  | 20. MAX. ISOTOPE WEIGHT             |  | 21. UNIT |  |
|   |  | One MDS Nordion Gammacell 40 Exactor Self Contained Low Dose Rate Research Irradiator Containing [redacted] of Cesium 137 (two [redacted] sealed sources). Category 1 Source Chemical Form: [redacted] Dollar Value: \$323,890 |  |   |  | NA  |  | NA  |  | NA                                  |  | NA       |  |
| 22. FOREIGN OBLIGATIONS BY COUNTRY AND PERCENTAGE (Use separate sheet if necessary)   |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
| NA  |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
| 23. ADDITIONAL INFORMATION ON CONSIGNEES, END USES, AND PRODUCT DESCRIPTION (Use separate sheet if necessary)   |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
| The irradiator will be used to conduct biomedical research experiments.   |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
| 24. The applicant certifies that this application is prepared in conformity with Title 10, Code of Federal Regulations; and that all information in this application is correct to the best of his/her knowledge. |  |  |  |   |  |   |  |   |  |                                     |  |          |  |
| 25. AUTHORIZED OFFICIAL   |  |  |  | a. SIGNATURE<br><i>Christopher Hubert</i>                         |  |   |  | b. TITLE<br>Director Environmental Health & Safety, RSO |  |                                     |  |          |  |



# Cold Spring Harbor Laboratory

P.O. Box 100, 1 Bungtown Road  
Cold Spring Harbor, New York 11724

November 14, 2005

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

Re: Import License for Research Irradiator

Dear Sir/Madam:

Cold Spring Harbor Laboratory has purchased a Gammacell-40 Exactor Research Irradiator from MDS Nordion located at 447 March Road, Ottawa, ON K2K 1X8 Canada. The Research Irradiator is equipped with two sealed Cesium <sup>137</sup> sources of approximately [REDACTED] each and will be used to conduct research experiments that require biological specimens, including small animals, to be exposed to varying doses of radiation. The contractual delivery date for the Research Irradiator is April 14, 2006. The delivery date may be delayed at the Laboratory's request several months beyond the contractual delivery date to accommodate renovations being performed in the building where the Research Irradiator will be located. If delaying the delivery of the Research Irradiator beyond the contractual date affects the issuance of the import license, please contact my office.

I contacted the NRC on November 4, 2005 and spoke with Steve Dembek, Section Chief in the Office of International Programs. Mr. Dembek informed me that I needed to submit to the NRC a completed NRC FORM 7, a copy of the Laboratory's license from the New York State Department of Health authorizing the Laboratory to possess the Gammacell-40 Research Irradiator with 4,000 curies of cesium, and an NRC licensing fee of \$2,400. Please find enclosed the three documents described above. If you have any questions or need any additional information please call me at (516) 367 - 8852.

Sincerely,

Christopher Hubert, RSO, CSP  
Director  
Environmental Health & Safety

Encls.: 3

RECEIVED OIP  
NOV 15 2005  
AM 8:41



# STATE OF NEW YORK DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.  
*Commissioner*

**OCT 28 2005**

Dennis P. Whalen  
*Executive Deputy Commissioner*

Cold Spring Harbor Laboratory  
One Bungtown Road  
Cold Spring Harbor, New York 11724

Attention: Christopher Hubert, CSP  
Radiation Safety Officer

RE: NYS Dept. of Health Radioactive  
Materials License No. 574  
DH No. 05-461

Dear Mr. Hubert:

Enclosed is Amendment No. 36 to New York State Department of Health Radioactive Materials License No. 574, which authorizes the possession and use of an MDS Nordion Gammacell-40 Extractor research irradiator. Also, your October 5, 2005 letter describing the relocation of the Mark I Model 68A research irradiator has been added to Condition No. 11 of the license. Please notify the Department prior to the receipt of the new irradiator and prior to the relocation of the existing irradiator.

Please note that since your license does not authorize you to relocate your irradiators, you must ensure that any company that performs this service for has a New York State Department of Labor radioactive materials license authorizing these activities or must be working under reciprocity approved by the New York State Department of Labor.

If I may be of assistance, please contact this office at 518/402-7590 or:

New York State Department of Health  
Bureau of Environmental Radiation Protection  
Radioactive Materials Section  
547 River Street - Room 530  
Troy, New York 12180-2216

Sincerely,

Charles J. Burns  
Associate Radiological Health Specialist

RD/CJB

Enclosure: Amendment No. 36

cc: W. Dillaway Ayres, Jr., Chief Operating Officer

**NEW YORK STATE DEPARTMENT OF HEALTH  
RADIOACTIVE MATERIALS LICENSE**

License Number 574

Amendment Number 36

DH Number 05-461

Cold Spring Harbor Laboratory  
One Bungtown Road  
Cold Spring Harbor, New York 11724

Attention: Christopher Hubert, CSP  
Radiation Safety Officer

Dear Licensee:

In accordance with the requests dated October 5, 2005, signed by Christopher Hubert, CSP, and W. Dillaway Ayres, Jr., New York State Department of Health Radioactive Materials License No. 574 is amended as follows:

Change Condition No. 6 to Read:

| 6. Radioactive Materials<br>(element & mass no.) | 7. Chemical and/or<br>Physical Form  | 8. Maximum quantity<br>licensee may possess<br>at one time |
|--|--|--|
| A. Hydrogen 3                                    | A. Any   | A. [REDACTED]  |
| B. Carbon 14                                     | B. Any   | B. [REDACTED]  |
| C. Phosphorus 32                                 | C. Any   | C. [REDACTED]  |
| D. Phosphorus 33                                 | D. Any   | D. [REDACTED]  |
| E. Sulfur 35                                     | E. Any   | E. [REDACTED]  |
| F. Calcium 45                                    | F. Any   | F. [REDACTED]  |
| G. Iodine 125                                    | G. Any   | G. [REDACTED]  |
| H. Cesium 137                                    | H. Sealed source<br>(J.L. Shepard<br>Type JLS 6810)  | H. [REDACTED]<br>[REDACTED]                                |
| I. Cesium 137                                    | I. Sealed source (AECL C-<br>161, Type 8; MDS<br>Nordion C-161, Type 8;<br>or MDS Nordion C-440) | H. [REDACTED]<br>[REDACTED]                                |

**NEW YORK STATE DEPARTMENT OF HEALTH  
RADIOACTIVE MATERIALS LICENSE**

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**CONDITIONS**

License No. 574  
Amendment No. 36

Change Condition No. 9 to Read:

9. Authorized use (unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2, above).
- A. through G. For in vitro and non-human in vivo research studies.
  - H. For use in a J.L. Shepard and Associates MARK I Model 68A research irradiator for the irradiation of cells, cell cultures, and small animals.
  - I. For use in a MDS Nordion Gammacell-40 Exactor Research Irradiator for the irradiation of biological specimens and small animals.

Change Condition No. 11 to Read:

11. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license, in accordance with statements, representations, and procedures contained in the documents (including any enclosures) listed below:
- A. Application for New York State Department of Health Radioactive Materials License dated October 6, 1992, signed by G. Morgan Browne.
  - B. Letter dated January 23, 1996, signed by Christopher Hubert, CSP.
  - C. Letter dated February 26, 1996, signed by Christopher Hubert, CSP.
  - D. Letter dated June 11, 1996, signed by Christopher Hubert, CSP.
  - E. Letter dated September 4, 1998, signed by Christopher Hubert, CSP.
  - F. Letter dated January 19, 1999, signed by Christopher Hubert, CSP.
  - G. Letter dated March 29, 1999, signed by William Keen, Arthur Brings, CSP, and Christopher Hubert, CSP.
  - H. Letter dated October 6, 1999, signed by Christopher Hubert, CSP.
  - I. Letter dated February 18, 2000, signed by Christopher Hubert, CSP, and Arthur Brings, CSP.
  - J. Letters dated November 6, and December 12, 2000, signed by Christopher Hubert, CSP, and G. Morgan Browne.

NEW YORK STATE DEPARTMENT OF HEALTH  
RADIOACTIVE MATERIALS LICENSE

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CONDITIONS

License No. 574  
Amendment No. 36


10. (continued)

K. Letter dated October 5, 2005, signed by Christopher Hubert, CSP, and W. Dillaway Ayres, Jr.

The New York State Department of Health's regulations shall govern the licensee's statements in applications or letters unless the statements are more restrictive than the regulations.

FOR THE NEW YORK STATE DEPARTMENT OF HEALTH

Date: **OCT 28 2005**  
RD/CJB

By   
Robert E. Dansereau, Chief  
Radioactive Materials Section  
Bureau of Environmental Radiation Protection

cc: W. Dillaway Ayres, Jr., COO