



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 23, 2006

Docket No. 03032974  
Control No. 139064

License No. 45-25221-01MD

Joe Harless, C.N.M.T  
Senior Vice President of Operations  
IBA Molecular North America, Inc.  
100 Executive Drive, Suite 100  
Sterling, VA 20166

SUBJECT: IBA MOLECULAR NORTH AMERICA, INC., LICENSE AMENDMENT,  
CONTROL NO. 139064

Dear Mr. Harless:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Current NRC regulations and guidance are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Toolkit Index Page**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Thank you for your cooperation.

Sincerely,

***Original signed by Thomas K. Thompson***

Thomas K. Thompson  
Senior Health Physicist  
Commercial and R&D Branch  
Division of Nuclear Materials Safety

Enclosure:  
Amendment No. 22

DOCUMENT NAME: E:\Filenet\ML062370153.wpd

**SUNSI Review Complete: TThompson**

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NAME	TThompson /TKT/							
DATE	8/23/06							

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**MATERIALS LICENSE**

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

<p style="text-align: center;">Licensee</p> <p>1. IBA Molecular North America, Inc.</p> <p>2. 100 Executive Drive, Suite 100 Sterling, VA 20166</p>	<p>In accordance with the letter dated June 27, 2006,</p> <p>3. License number 45-25221-01MD is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date July 31, 2013</p> <hr/> <p>5. Docket No. 03032974 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material with atomic numbers 1 through 83, inclusive except other nuclides listed herein in greater amounts</p> <p>B. Molybdenum 99</p> <p>C. Technetium 99m</p> <p>D. Iodine 131</p> <p>E. Xenon 133</p> <p>F. Any byproduct material listed in 10 CFR 31.11(a)</p> <p>G. Any byproduct material in a manual brachytherapy source as listed in 10 CFR 35.400</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>D. Any</p> <p>E. Any</p> <p>F. Prepackaged units for <u>in-vitro</u> diagnostic tests</p> <p>G. Sealed sources</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not to exceed 3 curies at any one site and 10 curies total for all locations of use</p> <p>B. Not to exceed 75 curies at any one site and 150 curies total for all locations of use</p> <p>C. Not to exceed 75 curies at any one site and 150 curies total for all locations of use</p> <p>D. 6 curies per location of use</p> <p>E. 1 curies per location of use</p> <p>F. Not to exceed 20 millicuries at any one site and 50 millicuries total for all locations of use</p> <p>G. Not to exceed 3 curies at any one site and 10 curies total for all locations of use</p>
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SUPPLEMENTARY SHEET**

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|--|-------------------|--|
| H. Any byproduct material authorized under 10 CFR 35.65(a) and (b), except other nuclides listed herein in greater amounts | H. Sealed sources | H. Not to exceed 50 millicuries at any one site and 200 millicuries total for all locations of use |
| I. Cesium 137  | I. Sealed sources | I. Not to exceed 50 millicuries at any one site and 200 millicuries total for all locations of use |
| J. Cobalt 60   | J. Sealed sources | J. Not to exceed 50 millicuries at any one site and 200 millicuries total for all locations of use |
| K. Barium 133  | K. Sealed sources | K. Not to exceed 50 millicuries at any one site and 200 millicuries total for all locations of use |
| L. Depleted Uranium  | L. Metal          | L. Not to exceed 200 kilograms at any one site and 400 kilograms total for all locations of use    |

## 9. Authorized use:

- A. through E. Preparation, distribution and redistribution of radioactive drugs including compounding of iodine-131 and used and unused molybdenum-99/technetium-99m generators to authorized recipients in accordance with 10 CFR 32.72. Preparation, distribution and redistribution of radioactive drugs and radiochemicals including compounding of iodine- 131 and redistribution of used and unused molybdenum 99/technetium 99m generators to authorized recipients for non-medical use. Calibration of the licensee's instruments.
- F. Redistribution to specific licensees or general licensees pursuant to 10 CFR 31.11 provided the packaging and labeling remain unchanged.
- G. Redistribution of sealed sources or other sources initially distributed by a manufacturer licensed pursuant to 10 CFR 32.74. Redistribution of sealed sources that have been registered either with NRC under 10 CFR 32.210 or with an Agreement State and have been distributed in accordance with an NRC or Agreement State specific license authorizing distribution to persons specifically authorized by an NRC or Agreement State license to receive, possess, and use the devices.

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H. through K. Calibration and checking of the licensee's instruments. Redistribution of sealed sources initially distributed by a manufacturer licensed pursuant to 10 CFR 32.74 to authorized medical and non-medical use recipients.

L. For use as shielding.

CONDITIONS

10. Licensed material may be used or stored only at the licensee's facilities located at :

- A. 100 Executive Drive, Suites 3 and 7 ,Sterling, Virginia
- B. 136-3 Musket Drive, Winchester, Virginia
- C. 110 Clyde Road, Somerset, New Jersey
- D. 3601 Morgantown Industrial Park, Morgantown, West Virginia
- E. 8614 NW 107th Terrace, Kansas City, Missouri

11. Licensed material shall be used by, or under the supervision of:

A. A pharmacist working or designated as an authorized nuclear pharmacist in accordance with 10 CFR 32.72(b)(2)(i) or (4).

B. Authorized nuclear pharmacists:

- 1) David A. Askew, R.Ph.
- 2) William Boerger, R.Ph.
- 3) Anwer Rizvi, R.Ph.
- 4) Stephanie D. Pearson, R.Ph
- 5) John Zehner, R.Ph.
- 6) Jeffrey Brannock, R.Ph.
- 7) John Thomas, Pharm.D.
- 8) Val Nassiri, R.Ph.
- 9) Mike Agnello, R.Ph.
- 10) Mark McIntyre, R.Ph.
- 11) Frank Kalisz, R.Ph.
- 12) Michael J. Donovan, R.Ph.
- 13) Philip M. Wanek, R.Ph.
- 14) Michael D. Ball, Sr., R.Ph.
- 15) Scott D. Chance, Pharm.D.
- 16) Raimund Taukulis, R.Ph.
- 17) Nasrin Pourkiani, R.Ph.
- 18) Kirk Lydell McCall, R.Ph.
- 19) Wilmer Tirado, R.Ph.
- 20) Brian Host, Pharm.D

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- 21) Ali A. Abassi, Pharm.D.
- 22) Rajeev Verma, R.Ph.
- 23) Russell K. Catron, R.Ph.
- 24) Matthew Ju, R.Ph.
- 25) Jamie L. Perry, R.Ph.
- 26) John C. Chen, R.Ph.
- 27) Kim C. Hosen, R.Ph.
- 28) Mark Marinock, R.Ph.
- 29) Fred LaPorte, R.Ph.
- 30) Mark Soffing, R.Ph.
- 31) Akram Kildani, R.Ph.
- 32) Frank Devine, R.Ph.

C. The Radiation Safety Officer (RSO) for this license is Joseph Harless, CNMT.

12. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) and 40.36(b) for establishing decommissioning financial assurance.
13. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
14.
  - A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
  - B. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
  - C. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
  - D. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.

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- E. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.
- F. Sealed sources need not be tested if they are in storage and are not being used; however, when they are removed from storage for use or transferred to another person and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- G. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.
- H. Tests for leakage and/or contamination, limited to leak test sample collection, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is not authorized to perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- I. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.
15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:
- A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding.
  - B. Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee.
  - C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.

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17. The licensee is authorized to retrieve, receive and dispose of radioactive waste from it's customers limited to radiopharmacy supplied syringes and vials and their contents.
18. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
19. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated February 3, 2003 (ML030360473)
  - B. Letter dated July 22, 2003 (ML032120188)
  - C. Letter dated January 6, 2005 (ML050330096)
  - D. Letter dated April 6, 2005 (ML050980287)
  - E. Letter dated June 27, 2006 (ML061860149)
  - F. Letter dated July 24, 2006 (ML062090022)



For the U.S. Nuclear Regulatory Commission

Date August 23, 2006

By *Original signed by Thomas K. Thompson*  
 Thomas K. Thompson  
 Commercial and R&D Branch  
 Division of Nuclear Materials Safety  
 Region I  
 King of Prussia, Pennsylvania 19406