

**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.

PC 02121

315799

Licensee

In accordance with letter dated **October 24, 2006**,  
and facsimile dated **December 4, 2006**,

3. License number 21-26447-01 is amended  
in its entirety to read as follows:

4. Expiration date April 30, 2013

5. Docket No. 030-32923  
Reference No.

1. Michigan CardioVascular Institute
2. 1015 S. Washington Ave.  
Saginaw, MI 48601

6. Byproduct, source, and/or special  
nuclear material

7. Chemical and/or physical form

8. Maximum amount that licensee may  
possess at any one time under this  
license

A. Any byproduct material  
permitted by 10 CFR 35.400

A. Any

A. As needed

B. Any byproduct material  
permitted by 10 CFR 35.200

B. Any

B. As needed

C. Gadolinium-153

C. sealed sources (NRC Model  
301B and DuPont Model

C. C Four sources total, not to  
exceed 323 millicuries each

9. Authorized Use:

A. Any uptake, dilution and excretion study permitted by 10 CFR 35.100.

B. Any imaging and localization study permitted by 10 CFR 35.200.

C. Two sources to be used in an SMV America Transmission Attenuation Correction (TAC) Source Holder Model PS 96 device for medical radiography in humans. Two sources in shipping containers for replacement of the sources.

**CONDITIONS**

10. Licensed material shall be used only at the licensee's facilities located at 3720 Katalin Court, Bay City, Michigan; 1015 S. Washington Avenue, Saginaw, Michigan; 301 W. Wakerly, Midland, Michigan, 200 Grand Avenue, Prudenville, Michigan and 315 East Warwick, Suite E, Alma, Michigan.

# **MATERIALS LICENSE SUPPLEMENTARY SHEET**

License Number  
21-26447-01

Docket or Reference Number  
030-32923

Amendment No. 23

11. Radiation Safety Officer: Jeffery W. Carney, M.D.

12. Licensed material is only authorized for use by, or under the supervision of:

- A. Individuals permitted to work as an authorized user in accordance with 10 CFR 35.13 and 35.14.
- B. The following individuals are authorized users for the materials and uses indicated:

## Authorized Users

## Material and Use

Jeffery W. Carney, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

Sarosh Anwar, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

Robert A. Genovese, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

David W. T. Chen, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

Tanveer Malik, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

Safawan Kassas, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

Alok Maheshwari, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

Gregory G. Pellizzon, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

Susan M. Sallach, M.D.

10 CFR 35.100, 35.200 and gadolinium-153 for medical radiography in humans.

- 13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source received from another person shall not be put into use until tested.

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- C. Sealed sources need not be leak 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.
- D. 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.
- E. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
14. 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) for establishing decommissioning financial assurance.
15. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
16. The licensee shall conduct a physical inventory of its sources and/or devices received and possessed under the license.
17. Sealed sources containing licensed material shall not be added or sources removed from source holders by the licensee.
18. 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. This condition applies only to those procedures that are required to be submitted in accordance with the regulations. Additionally, this license condition does not limit the licensee's ability to make changes to the radiation protection program as provided for in 10 CFR 35.26. 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.

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Amendment No. 23

- A. Application dated September 10, 1992;
- B. Letters dated July 25, 1997, November 14, 1997, June 22, 1998, July 8, 1998, May 4, 1998, November 12, 1998, December 3, 1998, October 5, 1999, November 18, 1999 (excluding reference to transportation of radioactive material), September 22, 2000, November 8, 2002, October 8, 2002, December 5, 2002, February 11, 2003, July 10, 2003, March 24, 2004, September 22, 2204, August 3, 2005, July 17, 2006; and
- C. Facsimile dated October 3, 2003.



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date DEC 27 2006

By

James R. Mullauer, M.H.S.  
Materials Licensing Branch  
Region III