

**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 02230*

*315696*

Licensee

In accordance with letter dated

**August 31, 2006,**

1. Ball Memorial Hospital

3. License number 13-00951-03 is amended in its entirety to read as follows

2. 2401 W. University Avenue  
Muncie, IN 47303

4. Expiration date March 31, 2014

5. Docket No. 030-01586

Reference No.

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 35.100

A. Any

A. As needed

B. Any byproduct material permitted by 10 CFR 35.200

B. Any

B. As needed

C. Any byproduct material permitted by 10 CFR 35.300

C. Any

C. 3 curies

D. Any byproduct material permitted by 10 CFR 35.400

D. Sealed sources (3M model Nos. 6500 Series and 6520 Series (formerly 6D6C) and 6B6G, North American Scientific, Inc. model Nos. MED3631 and MED3633; Bard Brachytherapy Model STM-1251 and Theragenics Corporation Model 200)

D. 5 curies

E. Any byproduct material identified in 10 CFR 31.11

E. Prepackaged kits

E. 150 millicuries

F. Iridium-192 permitted by 10 CFR 35.600

F. Sealed sources (Nucletron Model No. 105.002, manufactured by Mallinckrodt Medical BV or AEA Technology, Inc.)

F. 1 source not to exceed 12 curies and 1 source not to exceed 9 curies, 21 curies total

G. Strontium-90

G. Sealed sources (BEBIG Model Sr0.S03 or AEAT Model SICW.2)

G. No single source to exceed 5 millicuries; total possession not to exceed 800 millicuries.

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H. Phosphorus-32

H. Sealed source wires  
(Guidant Corporation Model  
GDT P-32 Series)H. Three source assemblies not  
to exceed 600 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. Any diagnostic and therapy procedure permitted by 10 CFR 35.300.
- D. Any manual brachytherapy procedure permitted by 10 CFR 35.400.
- E. In vitro studies.
- F. One source for medical use, as permitted by 10 CFR 35.600, in a Nucletron MicroSelectron-HDR Model 105.999 remote afterloading brachytherapy device. One source (not to exceed 12 curies while stored pending installation) in a shipping container for source replacement.
- G. To be used in Novoste Model A1000 series intravascular brachytherapy devices for medical use permitted by 10 CFR 35.1000, physics calibrations and quality assurance testing.
- H. One source assembly to be used in a Guidant Corporation VI Model GALILEO intravascular brachytherapy HDR device for medical use permitted by 10 CFR 35.1000; source assemblies may also be used for physics calibrations and quality assurance testing; one source assembly in a shipping container for replacement and disposal.

CONDITIONS

- 10. Licensed material shall be used only at the licensee's facilities located at 2401 W. University Avenue, Muncie, Indiana and 1398 North Balwin Street, Marion, Indiana.
- 11. Radiation Safety Officer: Alvis E. Foster, M.S.
- 12. Authorized Medical Physicists: Alvis E. Foster, M.S. and Joseph R. Butts, M.S.
- 13. Licensed material is only authorized for use by, or under the supervision of:
  - A. Individuals permitted to work as an authorized user, and/or authorized medical physicist in accordance with 10 CFR 35.13 and 35.14.

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B. The following individuals are authorized users for medical use as indicated:

Authorized UserMaterial and Use

George A. Branam, M.D.	10 CFR 35.100 and 31.11.
Robert M. Domke, M.D.	10 CFR 35.100, 35.200 and 35.300.
Michael Joseph Malnofski, M.D.	10 CFR 35.100, 35.200 and 35.300, limited to diagnostic procedures only.
Carl W. Meyer, III, M.D.	10 CFR 35.100, 35.200, 35.300, limited to diagnostic procedures only and 31.11.
Catherine Cockerill Moran, M.D.	10 CFR 35.100, 35.200 and 35.300, limited to diagnostic procedures only.
J. William Whitaker, M.D.	10 CFR 35.200, limited to cardiovascular clinical procedures.
Christopher J. Hollon, M.D.	10 CFR 35.100 and 35.200 (excluding generators), limited to cardiovascular clinical procedures.
Richard G. Huss, M.D.	10 CFR 35.100, 35.200, 35.300 and 31.11.
Charles J. Leiphart, M.D.	10 CFR 35.100, 35.200, 35.300, and 31.11.
Daniel J. Daunhauer, M.D.	10 CFR 35.100, 35.200, 35.300, and 31.11.
Nathan E. Millikan, M.D.	10 CFR 35.100 and 35.200 (excluding xenon-133 and generators) limited to cardiovascular clinical procedures.
A. Stephen Tilmans, M.D.	10 CFR 35.300 (excluding iodine-131 for treatment of hyperthyroidism, cardiac dysfunction and thyroid carcinoma), 35.400, iridium-192 in remote afterloading brachytherapy device, strontium-90 in Novoste Model A1000 series intravascular brachytherapy devices for medical use permitted by 35.1000 and phosphorus-32 in the Guidant Galileo intravascular brachytherapy device for medical use permitted by 35.1000.
Frank J. Conte, M.D.	10 CFR 35.100 and 35.200 (excluding generators and xenon-133), limited to cardiovascular clinical procedures.

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Fred H. Francis, M.D.

10 CFR 35.300, 35.400, iridium-192 in remote afterloading brachytherapy device, strontium-90 in Novoste Model A1000 series intravascular brachytherapy devices for medical use permitted by 35.1000 and phosphorus-32 in the Guidant Galileo intravascular brachytherapy device for medical use permitted by 35.1000.

Lydia Delaney-Sathy, M.D.

10 CFR 35.100, 35.200 and 35.300 limited to diagnostic procedures only.

William Mason, M.D.

10 CFR 35.100, ~~35.200~~ and 35.300

Yunjie Xie Lin, M.D.

10 CFR 35.300 (excluding iodine-131 for thyroid carcinoma therapy), ~~35.400~~ and iridium-192 in remote afterloading brachytherapy device.

Sriram S. Nathan, M.D.

10 CFR ~~35.100~~ and 35.200 (excluding generators and xenon-133), limited to cardiovascular clinical procedures.

William Bechtel, M.D.

~~10 CFR 35.100~~, 35.200 and ~~35.300~~ (excluding iodine-131 for thyroid carcinoma therapy)

Jay M. Veenendaal, M.D.

10 CFR ~~35.100~~, 35.200 and 35.300 (excluding iodine-131 for thyroid carcinoma therapy) and 31.11.

Nripendra Devanath, M.D.

10 CFR 35.100, 35.200, 35.300 (limited to iodine-131 as iodide for the treatment of hyperthyroidism) and 31.11.

John D. Hubbard, M.D.

10 CFR ~~35.100~~, 35.200 (excluding generators) and 35.300 (limited to diagnostic procedures only)

John P. Jacobs, M.D.

10 CFR 35.300, 35.400 (limited to iodine-125 and palladium-103), and iridium-192 in remote afterloading brachytherapy device.

Daniel O. Donkor, M.D.

10 CFR 35.100 and 35.200.

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14. Licensed material listed in Subitem G. and H. of Items. 6., 7., 8., and 9. shall be used by or under the supervision of an authorized user named in Condition No. 13., and in the physical presence of an authorized user named in Condition No. 13. or an authorized medical physicist who meets the requirements in 10 CFR 35.961. The authorized user named in Condition No. 13. shall consult with an authorized medical physicist who meets the requirements of 10 CFR 35.961 and an interventional cardiologist prior to each treatment.
15. In lieu of the source inventory required in 10 CFR 35.406, the licensee shall:
- A. Promptly determine that all sources have returned to the safe, shielded position at the conclusion of each Guidant Galileo and/or Novoste A1000 procedure.
  - B. Promptly make a survey of the area of use to confirm that no sources have been misplaced.
  - C. Make a record of the survey including the survey instrument used, dose rate expressed in mrem/hr ( $\mu$ Sieverts/hr), time, date and name of the individual making the survey.
  - D. Retain the record of the survey in lieu of the record required in 10 CFR 35.406(c).
16. In lieu of 10 CFR 35.404(b), immediately after retracting the source from the patient into its shielded position in the Novoste A1000 series and/or Guidant Galileo intravascular brachytherapy device, a radiation survey shall be made of the patient and the Novoste A1000 series and/or Guidant Galileo intravascular brachytherapy device with a portable radiation detection survey instrument to confirm that the source has been removed from the patient. Records of the survey shall be maintained in lieu of the record required in 10 CFR 35.404(c).
17. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
18. 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.

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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. This license 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.
- A. Application dated January 28, 2004; and
- B. Letters dated January 29, 2004, March 24, 2004, March 16, 2004 (excluding request to add Yunjie Xie Lin, M.D. as an authorized user) and June 28, 2005; and
- C. Facsimiles dated December 27, 2005, and January 12, 17, and 27, 2006.



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date NOV 30 2006

By Toye L. Simmons  
Toye L. Simmons  
Materials Licensing Branch  
Region III