



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

March 3, 2005

Docket No. 03003348
Control No. 136104

License No. 45-11035-01

Blair W. Mazzocco
Radiation Safety Officer
Sentara Virginia Beach General Hospital
1060 First Colonial Road
Virginia Beach, VA 23454

SUBJECT: SENTARA VIRGINIA BEACH GENERAL HOSPITAL, ISSUANCE OF LICENSE
AMENDMENT, CONTROL NO. 136104

Dear Mr. Mazzocco:

This refers to your license amendment request. Enclosed with this letter is the amended license. Please note that 10 CFR 31.11 materials have been removed from your license, therefore the in vitro lab may be released for unrestricted use. In the future all applications for changes to your license should be signed by a management representative rather than yourself, as the Radiation Safety Officer.

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).

Please note that on October 25, 2004, the NRC suspended public access to ADAMS, and initiated an additional security review of publicly available documents to ensure that potentially sensitive information is removed from the ADAMS database accessible through the NRC's web site. Interested members of the public may obtain copies of the referenced documents for review and/or copying by contacting the NRC Public Document Room pending resumption of public access to ADAMS. The NRC Public Document Room is located at NRC Headquarters in Rockville, MD, and can be contacted at 800-397-4209 or 301-415-4737 or pdr@nrc.gov.

B. Mazzocco
Sentara Virginia Beach General Hospital

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Thank you for your cooperation.

Sincerely,

Original signed by Tara L. Weidner

Tara L. Weidner
Health Physicist
Medical Branch
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 39

NRC Web site addresses
NRC regulations

<http://www.nrc.gov/reading-rm/doc-collections/cfr/>

Licensing guidance

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/>

General Policy and Procedure for NRC Enforcement Actions

<Http://www.nrc.gov/what-we-do/regulatory/enforcement/enforc-pol.pdf>

206 of the Energy Reorganization Act of 1974

<http://www.nrc.gov/who-we-are/governing-laws.html>

B. Mazzocco
Sentara Virginia Beach General Hospital

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OFFICE	DNMS/RI	N	DNMS/RI		DNMS/RI			
NAME	TWeidner/TLW							
DATE	3-3-2005							

OFFICIAL RECORD COPY

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. Sentara Virginia Beach General Hospital</p> <p>2. 1060 First Colonial Road Virginia Beach, Virginia 23454</p>	<p>In accordance with the letter dated November 26, 2004,</p> <p>3. License number 45-11035-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date August 31, 2014</p> <hr/> <p>5. Docket No. 030-03348 Reference No.</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material permitted by 10 CFR 35.100</p> <p>B. Any byproduct material permitted by 10 CFR 35.200</p> <p>C. Any byproduct material permitted by 10 CFR 35.300</p> <p>D. Any byproduct material permitted by 10 CFR 35.400</p> <p>E. Strontium 90 permitted by 10 CFR 35.400</p> <p>F. Strontium 90/Yttrium 90</p> <p>G. Strontium 90</p> <p>H. Yttrium 90</p> <p>I. Cesium 137</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>D. Sealed source (Theragenics Model 200)</p> <p>E. Sealed source (ARC Model B-1)</p> <p>F. Sealed Source (BEBIG Model Sr0.S03; AEAT Model SICW.2 Series)</p> <p>G. Sealed Source (Radiochemical Centre Model SIC.7)</p> <p>H. Any</p> <p>I. Sealed Source (3M Model 6D6C)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. As needed</p> <p>B. As needed</p> <p>C. 500 millicuries</p> <p>D. 1,000 millicuries</p> <p>E. 50 millicuries</p> <p>F. 5 millicuries per source and 800 millicuries total</p> <p>G. 10 millicuries</p> <p>H. 200 millicuries</p> <p>I. 100 millicuries</p>

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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 study or therapy procedure permitted by 10 CFR 35.300.
- D. Any manual brachytherapy procedure permitted by 10 CFR 35.400.
- E. Strontium-90 for ophthalmic radiotherapy permitted by 10 CFR 35.400.
- F. One source assembly for medical use in a Novoste Model A1000 Series intravascular brachytherapy remote afterloader unit. One source assembly in its shipping container as necessary for replacement of the source assembly in the intravascular brachytherapy remote afterloader unit.
- G. For use in a Nuclear Enterprises, Ltd. Model 2503 Thimble Ionization Chamber Calibrator for instrument calibrations.
- H. Calibration of the licensee's instruments.
- I. Possession and storage only in the licensee's Nuclear Medicine Department (this source was originally used as a calibration source).

CONDITIONS

- 10. A. Licensed material may be used or stored only at the licensee's facilities located at 1060 First Colonial Road, Virginia Beach, Virginia and at the Advanced Imaging Center, 1080 First Colonial Road, Virginia Beach, Virginia.
- B. Licensed material listed in 6.B., may be used or stored at the licensee's facilities located at Tidewater Cardiovascular Institute (TCI), 1708 Old Donation Parkway, Virginia Beach, Virginia.
- 11. The Radiation Safety Officer for this license is Blair Mazzocco, CNMT.
- 12. 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.
 - B. The following individuals are authorized users for medical use as indicated:

Authorized Users

Harry Alexander Allan, M.D.

David J. Disantis, M.D.

Material and Use

35.100; 35.200

35.100; 35.200; 35.300 except Iodine 131 in quantities greater than 33 millicuries

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Authorized Users**Material and Use**

Felix A. Hughes, III, M.D.	35.100; 35.200; 35.300
Ricardo De la Torre, M.D.	35.100; 35.200; 35.300
Mark Cramer, M.D.	35.100; 35.200; 35.300 except Iodine 131 in quantities greater than 33 millicuries
John G. Kenerson, M.D.	35.200
James C. Wright, M.D.	Strontium 90 for ophthalmic radiotherapy
Walter L. Taylor, Jr., M.D.	Strontium 90 for ophthalmic radiotherapy
Deborah A. Kuban, M.D.	35.300; 35.400
Man Hyong Kim, M.D.	35.100; 35.200
John D. O'Neil, M.D.	35.100; 35.200
Jeffrey A. Klein, M.D.	35.100; 35.200; 35.300 except Iodine 131 in quantities greater than 33 millicuries
Douglas Charles Brown, M.D.	35.100; 35.200
Thomas E. Goffman, M.D.	35.300; 35.400
Alan Zabell, M.D.	35.300; 35.400; Yttrium 90 for instrument calibration
P.G. Shankar Giri, M.D.	35.300; 35.400
Mark E. Shaves, M.D.	35.300; 35.400
Ajay Sandhu, M.D.	35.300; 35.400
Khadijeh S. Zarkoob, M.D.	35.300; 35.400; Strontium 90 for intravascular brachytherapy procedures
Domingo C. Tan, M.D.	35.100; 35.200; 35.300
Granville Batte, M.D.	35.100; 35.200; 35.300
Robert Mariano, M.D.	35.100; 35.200

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C. The following individuals are authorized medical physicists as indicated:**Authorized Medical Physicists****Material and Use**

Holly S. Dalton, M.S.

**Strontium 90 in an Intravascular Brachytherapy Afterloader Device for calibrations, spot-checks, and training
Strontium- 90 ophthalmic sources for physical decay calculations and calibrations**

Timothy E. Kennelly, M.S.

**Strontium 90 in an Intravascular Brachytherapy Afterloader Device for calibrations, spot-checks, and training
Strontium- 90 ophthalmic sources for physical decay calculations and calibrations**

Alexander Gray, M.S.

**Strontium 90 in an Intravascular Brachytherapy Afterloader Device for calibrations, spot-checks, and training
Strontium- 90 ophthalmic sources for physical decay calculations and calibrations****D. The following individuals are authorized users for non-medical uses as indicated:****Users****Material and Use**

Holly S. Dalton, M.S.

**Strontium 90 for instrument calibrations;
Cesium 137 for possession only**

Timothy E. Kennelly, M.S.

**Strontium 90 for instrument calibrations;
Cesium 137 for possession only**

Alexander Gray, M.S.

**Strontium 90 for instrument calibrations;
Cesium 137 for possession only**

E. Intravascular brachytherapy procedures shall be conducted under the supervision of the authorized user, who will consult with the interventional cardiologist/physician and authorized medical physicist prior to initiating treatment. The procedures shall be conducted in the physical presence of the authorized user or the authorized medical physicist.

13. The intravascular brachytherapy afterloader device shall be inspected and serviced at intervals recommended by the manufacturer, and maintenance and repair shall be performed by the

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manufacturer or persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

14. For sealed sources not associated with 10 CFR Part 35 use, the following conditions apply:

- 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. 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.**
- C. 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.**
- D. 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.**
- E. 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.**
- F. Tests for leakage and/or contamination, including leak test sample collection and analysis, 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.**
- G. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.**

15. 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

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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.

16. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
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), 40.36(b), and 70.25(d) for establishing decommissioning financial assurance.
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 February 19, 2004 (ML040620116)
B. Letter dated May 12, 2004 (ML041390243)
C. Letter dated June 25, 2004 (ML041950373)

For the U.S. Nuclear Regulatory Commission

Date March 3, 2005

By

Original signed by Tara L. Weidner

Tara L. Weidner
Medical Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406