**Virginia Cardiology**
*Professional Corporation*

*Margie Akbari, MD, FACC*
*Robert E. Cunnion, MD, FACC*

NMS 02

January 17, 2008

Commercial and R&D Branch
Division of Nuclear Materials Safety
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406

RECEIVED
REGION 1
2008 FEB -4 AM 9:31

RE: Virginia Cardiology, P.C.
3020 Hamaker Court
Suite 500
Fairfax, VA 22031 03020211
License # 45-23046-01

To Whom It May Concern:

Please amend the above referenced license to add Robert E. Cunnion, M.D. as an authorized user to the above referenced license. Documentation in support of this physician's credentials is enclosed.

Any questions regarding this request may be directed to me at (703) 641-0500.

Sincerely,

Neil C. Smarte, C.N.M.T.
Radiation Safety Officer.

141786

NMSS/RGN1 MATERIALS-002

3020 Hamaker Court, Suite 500 Fairfax, Virginia 22031 (703) 289-1207 (703) 289-1224 Fax

NRC FORM 313A (AUD) (3-2007) | U.S. NUCLEAR REGULATORY COMMISSION

# AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (for uses defined under 35.100, 35.200, and 35.500) [10 CFR 35.190, 35.290, and 35.590]

APPROVED BY OMB: NO. 3150-0120
EXPIRES: 10/31/2008

| Name of Proposed Authorized User | State or Territory Where Licensed |
|---|---|
| Robert E. Cunnion, M.D. | Virginia |

Requested Authorization(s) *(check all that apply)*

- ☐ 35.100 Uptake, dilution, and excretion studies
- ☑ 35.200 Imaging and localization studies
- ☐ 35.500 Sealed sources for diagnosis (specify device _____ )

## PART I -- TRAINING AND EXPERIENCE
***(Select one of the three methods below)***

* Training and Experience, including board certification, must have been obtained within the 7 years preceding the date of application or the individual must have obtained related continuing education and experience since the required training and experience was completed. Provide dates, duration, and description of continuing education and experience related to the uses checked above.

☐ **1. Board Certification**

a. Provide a copy of the board certification.

b. If using only 35.500 materials, stop here. If using 35.100 and 35.200 materials, skip to and complete Part II Preceptor Attestation.

☐ **2. Current 35.390 Authorized User Seeking Additional 35.290 Authorization**

a. Authorized user on Materials License _____ meeting 10 CFR 35.390 or equivalent Agreement State requirements seeking authorization for 35.290.

b. Supervised Work Experience.
*(If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this section.)*

| Description of Experience | Location of Experience/License or Permit Number of Facility | Clock Hours | Dates of Experience* |
|---|---|---|---|
| Eluting generator systems appropriate for the preparation of radioactive drugs for imaging and localization studies, measuring and testing the eluate for radionuclidic purity, and processing the eluate with reagent kits to prepare labeled radioactive drugs | | | |

**Total Hours of Experience:**

| Supervising Individual | License/Permit Number listing supervising individual as an authorized user |
|---|---|
| | |

Supervisor meets the requirements below, or equivalent Agreement State requirements *(check all that apply)*.

☐ 35.290 ☐ 35.390 + generator experience in 32.290(c)(1)(ii)(G)

## AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

☑ **3. Training and Experience for Proposed Authorized User**

a. Classroom and Laboratory Training.

| Description of Training | Location of Training | Clock Hours | Dates of Training* |
|---|---|---|---|
| Radiation physics and instrumentation | Health and Radiological Seminars, Inc., 550 Highland Street, Suite 303 Frederick, MD 21701 | 100 | February-May, 2007 |
| Radiation protection | Health and Radiological Seminars, Inc., 550 Highland Street, Suite 303 Frederick, MD 21701 | 30 | February-May, 2007 |
| Mathematics pertaining to the use and measurement of radioactivity | Health and Radiological Seminars, Inc., 550 Highland Street, Suite 303 Frederick, MD 21701 | 20 | February-May, 2007 |
| Chemistry of byproduct material for medical use *(not required for 35.590)* | Health and Radiological Seminars, Inc., 550 Highland Street, Suite 303 Frederick, MD 21701 | 30 | February-May, 2007 |
| Radiation biology | Health and Radiological Seminars, Inc., 550 Highland Street, Suite 303 Frederick, MD 21701 | 20 | February-May, 2007 |

**Total Hours of Training:** 200 hours

b. Supervised Work Experience (completion of this table is not required for 35.590).
*(If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this section.)*

| **Supervised Work Experience** | **Total Hours of Experience:** 500 hours | | |
|---|---|---|---|
| Description of Experience Must Include: | Location of Experience/License or Permit Number of Facility | Confirm | Dates of Experience* |
| Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys | Cardiac Diagnostic Services of Virginia 8505 Arlington Blvd., Suite 320 Fairfax, VA 22031 NRC# 45-24867-01 | ☑ Yes ☐ No | August 2007-January 2008 |
| Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters | Cardiac Diagnostic Services of Virginia 8505 Arlington Blvd., Suite 320 Fairfax, VA 22031 NRC# 45-24867-01 | ☑ Yes ☐ No | August 2007-January 2008 |

**3. Training and Experience for Proposed Authorized User (continued)**

b. Supervised Work Experience. (continued)

| Description of Experience Must Include: | Location of Experience/License or Permit Number of Facility | Confirm | Dates of Experience* |
|---|---|---|---|
| Calculating, measuring, and safely preparing patient or human research subject dosages | Cardiac Diagnostic Services of Virginia<br>8505 Arlington Blvd., Suite 320<br>Fairfax, VA 22031<br>NRC# 45-24867-01 | ☑ Yes<br>☐ No | August 2007-January 2008 |
| Using administrative controls to prevent a medical event involving the use of unsealed byproduct material | Cardiac Diagnostic Services of Virginia<br>8505 Arlington Blvd., Suite 320<br>Fairfax, VA 22031<br>NRC# 45-24867-01 | ☑ Yes<br>☐ No | August 2007-January 2008 |
| Using procedures to contain spilled byproduct material safely and using proper decontamination procedures | Cardiac Diagnostic Services of Virginia<br>8505 Arlington Blvd., Suite 320<br>Fairfax, VA 22031<br>NRC# 45-24867-01 | ☑ Yes<br>☐ No | August 2007-January 2008 |
| Administering dosages of radioactive drugs to patients or human research subjects | Cardiac Diagnostic Services of Virginia<br>8505 Arlington Blvd., Suite 320<br>Fairfax, VA 22031<br>NRC# 45-24867-01 | ☑ Yes<br>☐ No | August 2007-January 2008 |
| Eluting generator systems appropriate for the preparation of radioactive drugs for imaging and localization studies, measuring and testing the eluate for radionuclidic purity, and processing the eluate with reagent kits to prepare labeled radioactive drugs | | ☐ Yes<br>☑ No | |

| Supervising Individual | License/Permit Number listing supervising individual as an authorized user |
|---|---|
| Christine D. Bussey, M.D. | NRC # 45-24867-01 |

Supervisor meets the requirements below, or equivalent Agreement State requirements *(check one)*.

☐ 35.190 ☑ 35.290 ☐ 35.390 ☐ 35.390 + generator experience in 35.290(c)(1)(ii)(G)

c. For 35.590 only, provide documentation of training on use of the device.

| Device | Type of Training | Location and Dates |
|---|---|---|
| | | |
| | | |

d. For 35.500 uses only, stop here. For 35.100 and 35.200 uses, skip to and complete Part II Preceptor Attestation.

NRC FORM 313A (AUD) U.S. NUCLEAR REGULATORY COMMISSION
(3-2007)

**AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

## PART II – PRECEPTOR ATTESTATION

Note: This part must be completed by the individual's preceptor. The preceptor does not have to be the supervising individual as long as the preceptor provides, directs, or verifies training and experience required. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each. (Not required to meet training requirements in 35.590)

**First Section**
**Check one of the following for each use requested:**

For 35.190

Board Certification

☐ I attest that _____ has satisfactorily completed the requirements in
Name of Proposed Authorized User

10 CFR 35.190(a)(1) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100.

**OR**

Training and Experience

☐ I attest that _____ has satisfactorily completed the 60 hours of training and
Name of Proposed Authorized User

experience, including a minimum of 8 hours of classroom and laboratory training, required by 10 CFR 35.190(c)(1), and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100.

For 35.290

Board Certification

☐ I attest that _____ has satisfactorily completed the requirements in
Name of Proposed Authorized User

10 CFR 35.290(a)(1) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100 and 35.200.

**OR**

Training and Experience

☑ I attest that Robert E. Cunnion, M.D. has satisfactorily completed the 700 hours of training
Name of Proposed Authorized User

and experience, including a minimum of 80 hours of classroom and laboratory training, required by 10 CFR 35.290(c)(1), and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100 and 35.200.

**Second Section**
**Complete the following for preceptor attestation and signature:**

☑ I meet the requirements below, or equivalent Agreement State requirements, as an authorized user for:

☑ 35.190 ☑ 35.290 ☐ 35.390 ☐ 35.390 + generator experience

| Name of Preceptor | Signature | Telephone Number | Date |
|---|---|---|---|
| Christine D. Bussey, M.D. | C. Bussey | (703) 641-0500 | 1/17/08 |

License/Permit Number/Facility Name
NRC # 45-24867-01 Cardiac Diagnostic Services of Virginia

NRC FORM 313A (AUD) (3-2007) U.S. NUCLEAR REGULATORY COMMISSION

# AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (for uses defined under 35.100, 35.200, and 35.500) [10 CFR 35.190, 35.290, and 35.590]

APPROVED BY OMB: NO. 3150-0120
EXPIRES: 10/31/2008

| Name of Proposed Authorized User | State or Territory Where Licensed |
|---|---|
| Robert E. Cunnion, M.D. | Virginia |

Requested Authorization(s) *(check all that apply)*

- ☐ 35.100 Uptake, dilution, and excretion studies
- ☑ 35.200 Imaging and localization studies
- ☐ 35.500 Sealed sources for diagnosis (specify device _____ )

## PART I -- TRAINING AND EXPERIENCE
***(Select one of the three methods below)***

* Training and Experience, including board certification, must have been obtained within the 7 years preceding the date of application or the individual must have obtained related continuing education and experience since the required training and experience was completed. Provide dates, duration, and description of continuing education and experience related to the uses checked above.

☐ **1. Board Certification**

a. Provide a copy of the board certification.

b. If using only 35.500 materials, stop here. If using 35.100 and 35.200 materials, skip to and complete Part II Preceptor Attestation.

☐ **2. Current 35.390 Authorized User Seeking Additional 35.290 Authorization**

a. Authorized user on Materials License _____ meeting 10 CFR 35.390 or equivalent Agreement State requirements seeking authorization for 35.290.

b. Supervised Work Experience.
*(If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this section.)*

| Description of Experience | Location of Experience/License or Permit Number of Facility | Clock Hours | Dates of Experience* |
|---|---|---|---|
| Eluting generator systems appropriate for the preparation of radioactive drugs for imaging and localization studies, measuring and testing the eluate for radionuclidic purity, and processing the eluate with reagent kits to prepare labeled radioactive drugs | | | |
| **Total Hours of Experience:** | | | |

| Supervising Individual | License/Permit Number listing supervising individual as an authorized user |
|---|---|
| | |

Supervisor meets the requirements below, or equivalent Agreement State requirements *(check all that apply)*.

☐ 35.290 ☐ 35.390 + generator experience in 32.290(c)(1)(ii)(G)

## AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

☑ **3. Training and Experience for Proposed Authorized User**

a. Classroom and Laboratory Training.

| Description of Training | Location of Training | Clock Hours | Dates of Training* |
|---|---|---|---|
| Radiation physics and instrumentation | | | |
| Radiation protection | | | |
| Mathematics pertaining to the use and measurement of radioactivity | | | |
| Chemistry of byproduct material for medical use *(not required for 35.590)* | | | |
| Radiation biology | | | |
| **Total Hours of Training:** | | | |

b. Supervised Work Experience (completion of this table is not required for 35.590).
*(If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this section.)*

| **Supervised Work Experience** | | **Total Hours of Experience:** | |
|---|---|---|---|
| Description of Experience Must Include: | Location of Experience/License or Permit Number of Facility | Confirm | Dates of Experience* |
| Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys | | ☐ Yes ☑ No | |
| Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters | | ☐ Yes ☑ No | |

## AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

**3. Training and Experience for Proposed Authorized User (continued)**

b. Supervised Work Experience. (continued)

| Description of Experience Must Include: | Location of Experience/License or Permit Number of Facility | Confirm | Dates of Experience* |
|---|---|---|---|
| Calculating, measuring, and safely preparing patient or human research subject dosages | | ☐ Yes ☑ No | |
| Using administrative controls to prevent a medical event involving the use of unsealed byproduct material | | ☐ Yes ☑ No | |
| Using procedures to contain spilled byproduct material safely and using proper decontamination procedures | | ☐ Yes ☑ No | |
| Administering dosages of radioactive drugs to patients or human research subjects | | ☐ Yes ☑ No | |
| Eluting generator systems appropriate for the preparation of radioactive drugs for imaging and localization studies, measuring and testing the eluate for radionuclidic purity, and processing the eluate with reagent kits to prepare labeled radioactive drugs | Radiology Services of Northern Virginia<br>13870 Park Center Road,<br>Herndon, VA 20171<br>NRC# 45-31125-02 MD | ☑ Yes ☐ No | November 6, 2007 |

| Supervising Individual | License/Permit Number listing supervising individual as an authorized user |
|---|---|
| Allen Jones, PharmD., RSO | NRC# 45-31125-02 MD |

Supervisor meets the requirements below, or equivalent Agreement State requirements *(check one)*.

☐ 35.190 ☑ 35.290 ☐ 35.390 ☐ 35.390 + generator experience in 35.290(c)(1)(ii)(G)

c. For 35.590 only, provide documentation of training on use of the device.

| Device | Type of Training | Location and Dates |
|---|---|---|
| | | |
| | | |

d. For 35.500 uses only, stop here. For 35.100 and 35.200 uses, skip to and complete Part II Preceptor Attestation.

## PART II – PRECEPTOR ATTESTATION

Note: This part must be completed by the individual's preceptor. The preceptor does not have to be the supervising individual as long as the preceptor provides, directs, or verifies training and experience required. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each. (Not required to meet training requirements in 35.590)

**First Section**
**Check one of the following for each use requested:**

For 35.190

Board Certification

☐ I attest that _____ has satisfactorily completed the requirements in
Name of Proposed Authorized User

10 CFR 35.190(a)(1) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100.

**OR**

Training and Experience

☐ I attest that _____ has satisfactorily completed the 60 hours of training and
Name of Proposed Authorized User

experience, including a minimum of 8 hours of classroom and laboratory training, required by 10 CFR 35.190(c)(1), and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100.

For 35.290

Board Certification

☐ I attest that _____ has satisfactorily completed the requirements in
Name of Proposed Authorized User

10 CFR 35.290(a)(1) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100 and 35.200.

**OR**

Training and Experience

☐ I attest that _____ has satisfactorily completed the 700 hours of training
Name of Proposed Authorized User

and experience, including a minimum of 80 hours of classroom and laboratory training, required by 10 CFR 35.290(c)(1), and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100 and 35.200.

**Second Section**
**Complete the following for preceptor attestation and signature:**

☑ I meet the requirements below, or equivalent Agreement State requirements, as an authorized user for:

☑ 35.190 ☑ 35.290 ☐ 35.390 ☐ 35.390 + generator experience

| Name of Preceptor | Signature | Telephone Number | Date |
|---|---|---|---|
| Allen Jones, PharmD.,RSO | Allen Jones RSO | (703) 796-1188 | 1/31/08 |

License/Permit Number/Facility Name
NRC# 45-31125-02 MD Radiology Services of Northern Virginia

# COMMONWEALTH OF VIRGINIA

DEPARTMENT OF HEALTH PROFESSIONS

*Robert A. Nebiker, Director*

William L. Harp, M.D.
Executive Director
(804) 662-9908

## BOARD OF MEDICINE

6603 West Broad Street, 5th Floor
Richmond, VA 23230-1712
www.dhp.virginia.gov/medicine

**License to Practice**
**Medicine & Surgery**

**Robert E. Cunnion, MD**

**Issued**
**02/06/1998**

**Expires**
**08/31/2008**

**Number**
**0101057224**

**To Provide Information or File a Complaint About a Licensee, Call: 1-800-533-1560**

THE

# AMERICAN BOARD OF INTERNAL MEDICINE

INCORPORATED 1936

ATTESTS THAT

## Robert Emmett Cunnion

HAS MET THE REQUIREMENTS OF THIS BOARD AND IS HEREBY DESIGNATED A DIPLOMATE CERTIFIED IN THE SUBSPECIALTY OF

## CARDIOVASCULAR DISEASE

CHAIRMAN
AMERICAN BOARD OF INTERNAL MEDICINE

CHAIRMAN-ELECT
AMERICAN BOARD OF INTERNAL MEDICINE

SECRETARY-TREASURER
AMERICAN BOARD OF INTERNAL MEDICINE

SUBSPECIALTY BOARD ON CARDIOVASCULAR DISEASE

CHAIRMAN

R. J. Nosse

NUMBER 86303

DATE NOVEMBER 11, 1987

Amendment No. 15

# 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.

| Licensee | In accordance with the letter dated March 5, 2007, |
|---|---|
| 1. Cardiac Diagnostic Services of Virginia, Inc. | 3. License number 45-24867-01 is amended in its entirety to read as follows: |
| 2. 8505 Arlington Boulevard<br>Suite 320<br>Fairfax, Virginia 22031 | 4. Expiration date July 31, 2012 |
| | 5. Docket No. 030-29501<br>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 35.500 | C. Sealed Sources (North American Scientific, Inc. Model MED 3601; DuPont Merck Model NES-8412) | C. No single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State |

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. Diagnostic medical use of sealed sources permitted by 10 CFR 35.500 in compatible devices registered pursuant to 10 CFR 30.32(g).

## CONDITIONS

10. Licensed material may be used or stored only at the licensee's facilities located at 8505 Arlington Boulevard, Suite 320, Fairfax, Virginia.

11. The Radiation Safety Officer for this license is Neil C. Smarte, CNMT.

**MATERIALS LICENSE**
**SUPPLEMENTARY SHEET**

License Number
45-24867-01

Docket or Reference Number
030-29501

Amendment No. 15

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 medical use as indicated:

| Authorized Users | Material and Use |
|---|---|
| Christine D. Bussey, M.D. | 35.100; 35.200; 35.500 |
| Albert H. Kim, M.D. | 35.100; 35.200 |
| Todd Matros, M.D. | 35.100; 35.200 |
| Robert G. Matthews, M.D. | 35.100; 35.200; 35.500 |
| Pradeep K. Nayak, M.D. | 35.100; 35.200 |
| Eric H. Norby, M.D. | 35.100; 35.200; 35.500 |
| Todd Pulerwitz, M.D. | 35.100; 35.200 |

13. 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.

14. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

**MATERIALS LICENSE**
**SUPPLEMENTARY SHEET**

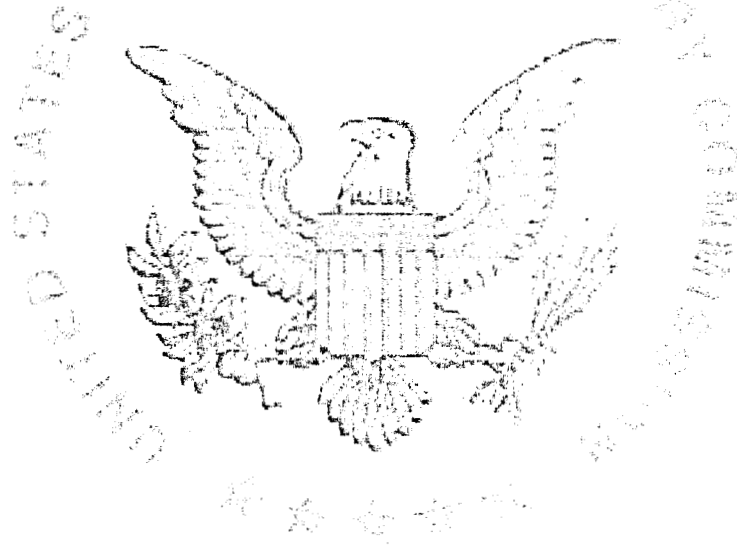
License Number
45-24867-01

Docket or Reference Number
030-29501

Amendment No. 15

15. 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, 2002 (ML020520366)
B. Letter dated August 29, 2003 (ML032450252)



For the U.S. Nuclear Regulatory Commission

Date March 22, 2007

By Michelle Beardsley

Michelle Beardsley
Commercial and R&D Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406
Thursday, March 22, 2007 8:43:02 AM

NRC FORM 374 U.S. NUCLEAR REGULATORY COMMISSION PAGE 1 OF 5 PAGES

# 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.

| Licensee | |
|---|---|
| 1. Radiology Services of Northern Virginia | 3. License number 45-31125-02MD |
| 2. 13870 Park Center Drive, Building #5, Bay #22<br>Herndon, Virginia 20171-3216 | 4. Expiration date May 31, 2016<br>5. Docket No. 030-27208<br>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 with atomic numbers 1-83 except molybdenum 99, technetium 99m, yttrium 90, iodine 131 and xenon 133 | A. Any | A. 100 millicuries per radionuclide and 1 curie total |
| B. Yttrium 90 | B. Any | B. 200 millicuries |
| C. Molybdenum 99 | C. Any | C. 200 curies |
| D. Technetium 99m | D. Any | D. 200 curies |
| E. Iodine 131 | E. Any | E. 2 curies |
| F. Xenon 133 | F. Any | F. 2 curies |
| G. Any byproduct material in a brachytherapy source as listed in 10 CFR 35.400 | G. Sealed sources (See condition 21) | G. 500 millicuries |
| H. Any byproduct material in a sealed source for diagnosis listed in 10 CFR 35.500 | H. Sealed Sources (See condition 21) | H. 1.5 curies per source and 5.5 curies total |
| I. Any byproduct material listed in 10 CFR 31.11(a) | I. Prepackaged units for in vitro diagnostic tests | I. 50 millicuries |
| J. Any byproduct material identified in 10 CFR 35.65(a) | J. Sealed Sources (See condition 21) | J. 300 millicuries |

NRC FORM 374A U.S. NUCLEAR REGULATORY COMMISSION



License Number
45-31125-02MD

Docket or Reference Number
03037208

**MATERIALS LICENSE**
**SUPPLEMENTARY SHEET**

| 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 |
|---|---|---|
| K. Depleted Uranium | K. Metal | K. 1000 kilograms |

9. Authorized use:

A. Through F. Preparation and distribution of radioactive drugs including compounding of I-131 and redistribution of used and unused molybdenum 99/technetium 99m generators to authorized recipients in accordance with 10 CFR 32.72. Preparation and distribution of radioactive drugs and radiochemicals including compounding of I-131 and redistribution of used and unused molybdenum 99/technetium 99m generators to authorized recipients for non-medical use.

G. and H. Redistribution for medical use of sealed sources initially distributed by a manufacturer licensed pursuant to 10 CFR 32.74. Redistribution for non-medical use of sealed sources that have been registered either with the Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State and have been distributed in accordance with a Commission or Agreement State specific license authorizing distribution to persons specifically authorized by a Commission or Agreement State licensee to receive, possess and use the devices.

I. Redistribution to specific licensees or to general licensees pursuant to 10 CFR 31.11 provided the packaging and labeling remain unchanged.

J. 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 recipients and to authorized recipients for non-medical use.

K. Shielding for molybdenum-99/technetium-99m generators.

CONDITIONS

10. Licensed material may be used or stored only at the licensee's facilities located at 13870 Park Center Drive, Building #5, Bay #22, Herndon, Virginia.

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: James Babb, Craig C. Barlow, Scott C. Brower, Thanh Huynh, Allen C. Jones, Steven Mize, Amy Smith, John M. Tabb, Jr., John Thomas, Rebecca Wynn and Tim Younkin.

NRC FORM 374A U.S. NUCLEAR REGULATORY COMMISSION



License Number
45-31125-02MD

Docket or Reference Number
03037208

**MATERIALS LICENSE**
**SUPPLEMENTARY SHEET**

12. The Radiation Safety Officer for this license is Allen C. Jones, R.Ph., PharmD.

13. 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.

14. This license does not authorize commercial distribution of licensed material to persons exempt from licensing pursuant to 10 CFR 30.14 through 30.21, inclusive, or equivalent regulations of any Agreement State.

15. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 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. 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 to use until tested and the test results received.

    D. Sealed sources need not be tested if they contain only tritium or 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.

    E. 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.

    F. 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.

    G. 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.

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H. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.

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 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.

18 The licensee is authorized to hold byproduct material with a physical half-life of less than 120 days for decay-in-storage before disposal without regard to its radioactivity if it:

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; and

B. Removes or obliterates all radiation labels, except radiation labels on materials that are within containers and that will be handled as biomedical waste after they have been released from the licensee; and

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.

19. The licensee is authorized to retrieve, receive and dispose of radioactive waste from its customers limited to radiopharmacy supplied syringes and vials and their contents.

20. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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21. 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 January 22, 2006 [ML060[illegible]]

For the U.S. Nuclear Regulatory Commission

Date May 23, 2006

By _____
James P. Dwyer, Chief
Commercial and R&D Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406
Tuesday, May 23, 2006 2:53:32 PM

# Health & Radiological Seminars, Inc.

## Hereby certifies that

# *ROBERT E. CUNNION, M.D.*

**has successfully completed the 200 Hour Physician Training Program in Basic Radioisotope Handling conducted in accordance with the requirements of the U.S. Nuclear Regulatory Commission (10 CFR 35).**

## COURSE OUTLINE

**Radiation Physics and Instrumentation - 100 hours**
**Mathematics pertaining to the use and measurement of radioactivity - 20 hours**
**Radiopharmaceutical Chemistry - 30 hours**
**Radiation Biology - 20 hours**
**Radiation Protection - 30 hours**

**May 6, 2007**

Derek H. Noland
Program Director

Stephen M. Dyer, MHS
Scientific Advisor

This is to acknowledge the receipt of your letter/application dated

1/17/2008, and to inform you that the initial processing which includes an administrative review has been performed.

☑ AMEND. 45-23046-01
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

_____.

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 141786.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader