

DL-051099-01

May 10, 1999

US Nuclear Regulatory Commission  
Region II  
Nuclear Materials Licensing / Inspection Branch I  
Division of Nuclear Materials Safety  
Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, GA 30303-3415

RE: Termination of NRC License #47-18409-01 (W Alva Deardorff, MD)

Dear Sir or Madam:

This letter is to notify the Nuclear Regulatory Commission that Licensee #47-18409-01 (W Alva Deardorff, MD) has permanently ceased operations involving the use of byproduct materials. The following is in response to specific questions listed on NRC Form 314, "Certificate of Disposition of Materials."

**Materials Data**

All materials procured and/or possessed by the licensee have either been disposed of or transferred to another licensee who is licensed to use the materials.

All wastes previously generated at this facility have previously been held for decay-in-storage as allowed by the license, surveyed, and been discarded. (Only <sup>99m</sup>Tc radiopharmaceuticals have been used in the past 4 years. The last receipt of radioactive <sup>99m</sup>Tc was in July 1998.)

All remaining sealed sources were leak tested on April 29, 1999, and found to be free of measurable contamination (<< 5 nCi). These materials were transferred to another licensee (Charleston Area Medical Center, License #47-15473-01) on May 10, 1999 for their use. We have a copy of their license on hand, which authorizes the use of such sealed sources under 10 CFR Part 35.

**Other Data**

Our license has not yet expired. Please terminate the license.

Only <sup>99m</sup>Tc has been used under this license in the past 4 years and not within the past 9+ months and all of the sealed sources have been shown to be free of leakage. It is not possible for any residual contamination to remain. Therefore, we feel that surveys were not required. However, we have performed some surveys anyway to further demonstrate that no contamination remains. A report of the surveys performed is attached.

If there are any questions relating to this matter, please contact the individual listed on NRC Form 314, Section B-3 regarding this matter.

Sincerely,

  
W Alva Deardorff, MD  
Owner / Radiation Safety Officer

258363

258363

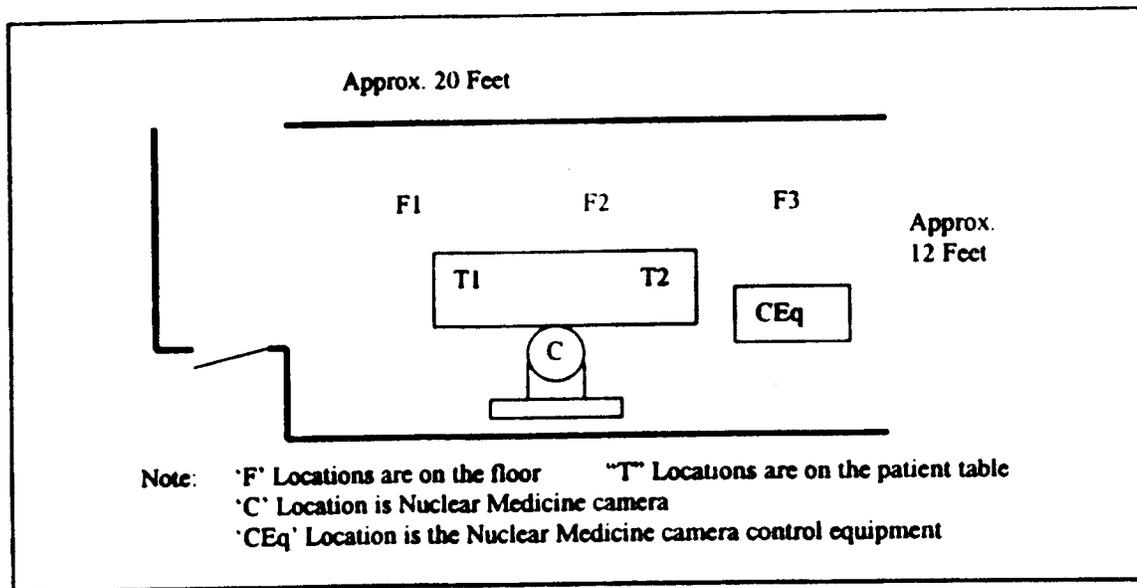
## Room Decommissioning Report

Room: Hot Lab, W. Alva Deardorff, MD

Date: April 29, 1999

On April 29, 1999, the Camera Area at the offices of W. Alva Deardorff, MD were surveyed for residual radioactive contamination. The following is a report of the decommissioning of the Camera.

**Room Map:**



**Survey Data:**

**Ambient Exposure Rate:**

Survey Meter Used: Ludlum 14C (SN 129606), calibrated 12/21/99

Measurements were at a distance of 1 cm from all surfaces.

Background exposure rate: 0.04 mR/hr.

All locations were 0.04 mR/hr (background).

**Removable Contamination:**

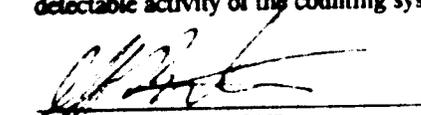
Instrument Used: Captus 2000 (SN 3458607), calibrated 2/26/99 (Efficiency > 84.8%)

Minimum Detectable Activity: 100 dpm, Lower Limit of Detection: 41 dpm

| Location   | Net dpm | Location | Net dpm |
|------------|---------|----------|---------|
| Background | 314 cpm | T1       | 1       |
| F1         | 0       | T2       | 26      |
| F2         | 18      | C        | 0       |
| F3         | 0       | CEq      | 0       |

**Summary:**

As all measured exposure rates were at background levels and all wipes were less than the minimum detectable activity of the counting system. Therefore, no contamination remains.

  
 Jeffrey J. Brunette, CHP  
 CAMC Health Physicist

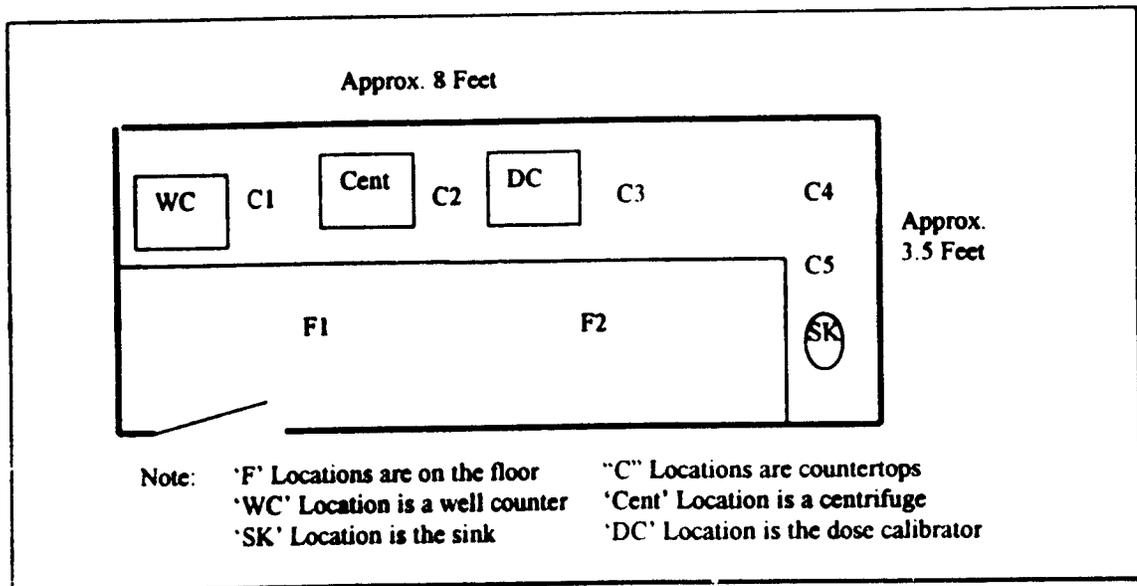
## Room Decommissioning Report

**Room:** Hot Lab, W. Alva Deardorff, MD

**Date:** April 29, 1999

On April 29, 1999, the Hot Lab at the offices of W. Alva Deardorff, MD were surveyed for residual radioactive contamination. The following is a report of the decommissioning of the Hot Lab.

**Room Map:**



**Survey Data:**

**Ambient Exposure Rate:**

Survey Meter Used: Ludlum 14C (SN 129606), calibrated 12/21/99.

Measurements were at a distance of 1 cm from all surfaces.

Background exposure rate: 0.04 mR/hr.

All locations were 0.04 mR/hr (background).

**Removable Contamination:**

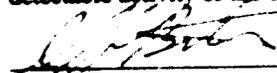
Instrument Used: Captus 2000 (SN 3458607), calibrated 2/26/99. (Efficiency > 84.8%)

Minimum Detectable Activity: 100 dpm, Lower Limit of Detection: 41 dpm

| Location   | Net dpm | Location | Net dpm |
|------------|---------|----------|---------|
| Background | 314 cpm | C1       | 25      |
| F1         | 0       | C2       | 0       |
| F2         | 0       | C3       | 4       |
| DC         | 0       | C4       | 9       |
| WC         | 2       | C5       | 9       |
| Cent       | 0       | SK       | 21      |

**Summary:**

As all measured exposure rates were at background levels and all wipes were less than the minimum detectable activity of the counting system. Therefore, no residual contamination remains

  
 Jeffrey J. Brunette, CHP  
 CAMC Health Physicist

## Radioactive Sealed Source Wipe Test Report

Facility: Dr. A. Deirdorf's Office

April 29, 1999

| Radio-nuclide     | Manufacturer | Activity  | Date    |
|-------------------|--------------|-----------|---------|
| <sup>137</sup> Cs | Dupont       | 201 μCi   | 6/1/79  |
| <sup>133</sup> Ba |              | 276.1 μCi | 3/22/83 |
| <sup>133</sup> Ba | Abbott       | 0.05 μCi  | 6/2/78  |
| <sup>60</sup> Co  | Dupont       | 49 μCi    | 5/17/79 |

These referenced source were leak tested and analyzed utilizing a Capintec 2000 (Ser. # 3458607) well detector owned by Charleston Area Medical Center (NRC License number 49-15473-01). The unit was calibrated on 2/24/99 using a set of NIST traceable sources. The efficiency was determined to be 9.73% for <sup>60</sup>Co, 12.7% for <sup>137</sup>Cs, and 94.0% for <sup>133</sup>Ba.

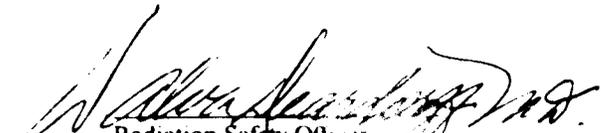
The following is the counting data for the leak test evaluation:

| Isotope - Manf. (SN)       | Count Time | Gross Rate (cpm) | Back. (cpm) | Net Count Rate (cpm) | Net Count Rate (nCi) | LLD (nCi) | MDA (nCi) |
|----------------------------|------------|------------------|-------------|----------------------|----------------------|-----------|-----------|
| <sup>137</sup> Cs - Dupont | 1 min.     | 25               | 29          | 0                    | 0                    | 0.044     | 0.098     |
| <sup>133</sup> Ba -        | 1 min.     | 341              | 314         | 27                   | 0.013                | 0.020     | 0.040     |
| <sup>133</sup> Ba - Abbott | 1 min.     | 324              | 314         | 10                   | 0.005                | 0.020     | 0.040     |
| <sup>60</sup> Co - Dupont  | 1 min.     | 288              | 314         | 0                    | 0                    | 0.190     | 0.394     |

All leak test evaluations were below the 5 nCi permissible level as stated in Nuclear Regulatory Commission regulations as stated in 10 CFR §35.59(c). Additionally, the Minimum Detectable Activity of the counting system is also below the 5 nCi limit as required by 10 CFR §35.59(c)(3).

Additionally, four <sup>60</sup>Co sources were decayed in storage well beyond 10 half-lives. The sources were surveyed with a survey meter (Ludlum 14C thin window GM counter, serial #129606), found be indistinguishable from background radiation levels (0.04 mR/hr), defaced, and discarded as non-radioactive waste. These sources had an original activity of 195 MBq on 8/86, 280 μCi on 4/20/79, 5.22 mCi on 3/22/83, and 5.1 mCi on 8/16/82.

  
Health Physicist

  
Radiation Safety Officer



UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION II ATLANTA FEDERAL CENTER 61 FORSYTH STREET, SW, SUITE 23T85 ATLANTA, GEORGIA 30303-3415

TELEFAX

To: T. Ryan License No. 47-18409-01 Company W Alva Deardorff, MD. Title Office Mgr Fax No. (304) 768-0939

FROM: Orycia Masnyl Bailey Nuclear Materials Licensing/Inspection Branch I Division of Nuclear Materials Safety Fax No. (404) 562-4955 Voice (404) 562-4739 800-577-8510 X Date 4-13-99

SUBJECT: YOUR REQUEST FOR TRANSFER OR TERMINATION OF NRC LICENSE

Please provide the following information, in addition to the NRC Form 314 (Certificate of Disposition of Materials):

All records considered important to the safe and effective decommissioning of the facility, in accordance with 10 CFR 30.35(g), 40.36(f), §70.25(g) and §72.30(d); and all records concerning public dose and waste disposal, have been transferred to:

1. Name (Successor) License No. Address City State Phone ( ) - Fax No. ( ) OR

2. US NRC Region II, Nuclear Materials Licensing/Inspection Branch, Division of Nuclear Materials Safety OR

3. There is no residual contamination of the facility or environs from licensed materials.

\* Signature W. Alva Deardorff, MD. \* Printed Name and Title W. ALVA DEARDORFF, M.D. 258363

G:\DNMS\FORMS\T...fax \* 5-10-99 Date 258363

NRC FORM 314  
10 CFR 30.38(a)(1)(ii)  
10 CFR 40.42(a)(1)(ii)  
10 CFR 70.38(a)(1)(ii)

CERTIFICATE OF DISPOSITION OF MATERIALS

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST TO MAIL FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MAIL ROOM) U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545 AND TO THE PAPERWORK REDUCTION PROJECT (3160-0028), OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, DC 20503

INSTRUCTIONS: SEND THE COMPLETED CERTIFICATE TO THE NRC OFFICE SPECIFIED ON THE REVERSE

(All items MUST be completed - print or type)

LICENSEE NAME AND ADDRESS

\* W. ALVA DEARDORFF, MD  
4620 MACCORKIE AVE SW  
SO. CHARLESTON, WV 25309

LICENSE NUMBER

47-18409-01

LICENSE EXPIRATION DATE

\* Aug. 31, 1999

THE LICENSEE OR ANY INDIVIDUAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE LICENSEE CERTIFIES THAT  
(Check and/or complete the appropriate item(s) below.)

A. MATERIALS DATA (Check one and complete as necessary)

1. NO MATERIALS HAVE EVER BEEN PROCURED OR POSSESSED BY THE LICENSEE UNDER THIS LICENSE
- OR
2. ALL MATERIALS PROCURED AND/OR POSSESSED BY THE LICENSEE UNDER THE LICENSE NUMBER CITED ABOVE HAVE BEEN DISPOSED OF IN THE FOLLOWING MANNER. (If additional space is needed, use the reverse side or provide attachments.)

Describe specific material transfer actions and, if there were radioactive wastes generated in terminating this license, the disposition of low-level radioactive waste, mixed waste, Greater than Class C waste, and sealed sources, if applicable.

See attached

For transfers, specify the date of the transfer, the name of the licensee recipient, and the recipient's NRC license number, if applicable. Specify same and license number.

See attached

If materials were disposed of directly by the licensee rather than transferred to another licensee, describe disposal methods used, including specific disposal procedures (e.g., decay in storage).

B. OTHER DATA

1. OUR LICENSE HAS NOT YET EXPIRED. PLEASE TERMINATE IT.
2. WAS A RADIATION SURVEY CONDUCTED TO CONFIRM THE ABSENCE OF RESIDUAL RADIOACTIVE MATERIALS OR TO DETERMINE WHETHER ANY CONTAMINATION REMAINS ON THE PREMISES COVERED BY THIS LICENSE? (Check one)

NO (Attach explanation)

YES, THE RESULTS (Check one)

ARE ATTACHED, OR

WERE FORWARDED TO NRC ON (Date):

3. THE PERSON TO BE CONTACTED REGARDING THE INFORMATION PROVIDED ON THIS FORM

NAME

\* W. ALVA DEARDORFF MD.

TELEPHONE NUMBER

\* 304 744 2661

4. MAIL ALL FUTURE CORRESPONDENCE REGARDING THIS LICENSE TO

\* W. ALVA DEARDORFF MD.  
1417 ROBIN HOOD RD.  
CHARLESTON W.V. 25314

CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

SIGNATURE

\* W. Alva Deardorff MD.

DATE

\* 5-10-99

PRINTED NAME AND TITLE

\* W. ALVA DEARDORFF MD. RSO

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL RESPECTS. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.