

DL-041096-04

Roanoke  
Memorial  
Hospitals

April 10, 1996

An Affiliate of **CARLION** Health System

U.S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW - Suite 2900  
Atlanta, GA 30323-0199

**SUBJECT:** Amendment request to U.S. NRC RAM License No. 45-01291-02

**REF:** License renewal application dated 11/30/94  
Item 7 - Individuals Responsible for Radiation Safety Programs and Their  
Experience  
Item 9.1 - Facilities and Equipment Section

With regard to Item 7 of renewal application of November 30, 1994, we are requesting the approval and subsequent addition of Charles W. Warner, M.D. as an authorized user for all byproduct materials listed under Item 5.a.A. (10 CFR 35.100), 5.a.B. (10 CFR 35.200), 5.a.F. (in vitro clinical or lab testing 10 CFR 3.11), and under 5.a.C. (10 CFR 35.300), only for Iodine-131 as iodide for treatment for hyperthyroidism, cardiac dysfunction and thyroid carcinoma. Please see the attached forms, supplements A and B, which document Dr. Warner's training and experience for qualification as authorized user for the radioactive material noted above.

With regard to Item 9.1 of our renewal application of November 30, 1994, we are requesting approval for the relocation of our entire Nuclear Medicine Department. This relocation would be from the present location on the third floor of the East Pavilion to the second floor, immediately below, in the same building. This building is designated Roanoke Memorial Hospital, Belleview at Jefferson Streets, Roanoke, Virginia. An annotated drawing of the proposed location is attached (ATT.9.1.A).

The following designated areas, as indicated on the attached drawing are undergoing renovation, to include areas 201 through 218A, excluding 207 and 207A. The adjacent area, for staff support, isotope preparation and storage (i.e. Wet Lab/Hot Lab) is not undergoing any renovation. This area was described previously in Radioactive Material License #45-01291-04M, which was terminated on December 27, 1995. Isotope receipt, preparation, assay, storage, and decay-in-storage in lead lined cabinets (ATT.9.1.B. & C.) within this pre-existing area would be accommodated. Presently, no gaseous radioactive material is being used or has been ordered or used within the last three years. Technetium-99m aerosol is used for lung studies. Also, presently only unit doses of liquid or encapsulated iodine are being ordered and used. The existing fume hood in this area exhausts directly to a roof area, which is not occupied, and has restricted access. This fume hood has a measured air flow rate in excess of 100 cfm.

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Windows adjacent to this roof area open onto a stair well, and are kept locked 24 hours per day, providing restricted access to the this roof area. Air flow rates will be measured every six months.

Regarding the exhaust of Nuclear Medicine scan rooms, which are presently under construction, all of these rooms where radioactive material will be used will have a negative pressure as per ATT.9.1.D. Air supply and exhaust rates will be measured initially and at least annually. No gaseous radioactive material is presently being used or anticipated. The exhaust systems from the scan rooms enter a common exhaust duct which mixes exhaust air from the first, second, and third floors of the East Pavilion. This air then exits on the tenth floor to a roof area. No air intakes are located on this roof area. The nearest windows are end of the corridor windows on the West Pavilion. The access to this area is restricted by a locked door to the pump machine room with sole access to the roof area through another door within pump room. Maintenance and security will have access keys.

Prior to reassigning the second floor area vacated by Nuclear Medicine Department an exit ambient exposure rate and surface contamination survey will be completed and a report of the findings forwarded to your office.

All other conditions as described in our present license activities will remain in effect. We have enclosed a fee in the amount of \$430.00 to facilitate this amendment request.

We appreciate your prompt attention to this request, and if additional questions arise or clarifications are needed in this amendment process, please feel free to contact Joseph L. Surace, Radiation Safety Officer at your convenience, at (540) 981-7379.

Respectfully submitted,

  
Lucas Snipes, Director  
Roanoke Memorial Hospitals

bp

Attachment

EXHIBIT 2  
SUPPLEMENT A

SUPPLEMENT		U.S. NUCLEAR REGULATORY COMMISSION		
TRAINING AND EXPERIENCE AUTHORIZED USER OR RADIATION SAFETY OFFICER				
1. NAME OF PROPOSED AUTHORIZED USER OR RADIATION SAFETY OFFICER CHARLES H. WARNER, M. D.		2. FOR PHYSICIANS, STATE OR TERRITORY WHERE LICENSED VIRGINIA Lic. # 0101-046343		
3. CERTIFICATION				
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C		
AMERICAN BOARD OF RADIOLOGY	DIAGNOSTIC	JUNE 1990		
4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES				
FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	TYPE AND LENGTH OF TRAINING		
		CLOCK HOURS IN LECTURE OR LABORATORY	CLOCK HOURS OF SUPERVISED ON-THE-JOB EXPERIENCE	
a. RADIATION PHYSICS AND INSTRUMENTATION	July 1, 1986-June 30, 1991 Johns Hopkins Hospital Baltimore, MD	150		
b. RADIATION PROTECTION	July 1, 1986-June 30, 1991 Johns Hopkins Hospital Baltimore, MD	30		
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	July 1, 1986-June 30, 1991 Johns Hopkins Hospital Baltimore, MD	30		
d. RADIATION BIOLOGY	July 1, 1986-June 30, 1991 Johns Hopkins Hospital Baltimore, MD	30		
e. RADIOPHARMACEUTICAL CHEMISTRY	July 1, 1986-June 30, 1991 Johns Hopkins Hospital Baltimore, MD	30		
5. EXPERIENCE WITH RADIATION. (Acc. of use of Radioisotopes or Equivalent Experiences)				
ISOTOPE	mCi USED AT ONE TIME	LOCATION	CLOCK HOURS	TYPE OF USE
		Johns Hopkins Hospital	>500 Hrs.	Diagnostic nuclear Medicine
		Roanoke Memorial Hospitals	>500 Hrs.	Diagnostic and Therapeutic Nuclear Medicine
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EXHIBIT 3 (Continued)

PROPOSED PHYSICIAN USER  
Charles H. Warner, M. D.

PRECEPTOR STATEMENT (Continued)

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN (Continued)

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS <small>(Additional information or comments may be submitted in duplicate on separate sheets.)</small> D
<sup>212</sup> Pb <i>(Substance)</i>	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASES		}----See Attachments }----See Attachments
<sup>212</sup> Pb <i>(Colloid)</i>	INTRACAVITARY TREATMENT		
I-131	TREATMENT OF THYROID CARCINOMA	3	
	TREATMENT OF HYPERTHYROIDISM	10	
Am-188	INTRACAVITARY TREATMENT		
Co-60 or Co-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
<sup>125</sup> I or I-127	INTERSTITIAL TREATMENT		
<sup>60</sup> Co or Co-137	TELETERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		
	RADIOPHARMACEUTICAL PREPARATION		
<sup>99m</sup> Tc/ <sup>99</sup> Tc	GENERATOR		
<sup>113m</sup> In/ <sup>113</sup> In	GENERATOR		
Tl-201m	REAGENT KITS		
Other			

3. DATES AND TOTAL NUMBER OF HOURS RECEIVED IN CLINICAL RADIOISOTOPE TRAINING

LOCATION	DATES	CLOCK HOURS OF EXPERIENCE
Johns Hopkins Hospital	7/1/86-5/30/91	5700
Roanoke Memorial Hospitals	7/1/91-present	2500

4. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF:

a. NAME OF SUPERVISOR  
Marshall A. Wakat, M.D., Ph.D.

b. NAME OF INSTITUTION  
Roanoke Memorial Hospitals

c. MAILING ADDRESS  
P. O. Box 13367  
Roanoke Virginia 24033

5. PRECEPTOR'S SIGNATURE  
*Marshall A. Wakat*

7. PRECEPTOR'S NAME (Print name in block letters)  
MARSHALL A. WAKAT, M.D., PH.D.

8. DATE  
07/22/91

9. STATE BOARD OF PHYSICIAN LICENSURE NUMBER  
45-016711