



DIAGNOSTIC SERVICES INC.

June 29, 1987

Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

RE: Control Number 83163

Dear Sirs:

We request that you amend our By Product Materials License to show the following change:

Please add Stephen Dudek, M.D., and Barbara A. Sandefur, M.D., as authorized users on our By Products Materials License.

Dr. Dudek is currently listed as an authorized user with Holy Family Medical Center, NRC license number 48-10251-01.

Preceptor statements for Dr. Sandefur are enclosed.

Very truly yours,

Paul Smith  
Radiation Safety Officer

PS:sp

Enclosure

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REG3 LIC30  
48-70341-01

PDR

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Log	July 4-11
Remitter	
Check No.	6732
Amount	\$120
Fee Category	7C
Type of Fee	Amid
Date Check Recd.	7/5/87
Date Completed	7/14/87
By	Russell

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REGION III

JUL 1 1987

CONTROL NO. 83787

TRAINING AND EXPERIENCE  
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER <i>Barbara A. Sandefur, m.o.</i>	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE <i>WI, AR, LA</i>
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3. CERTIFICATION		
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
<i>American Board of Radiology</i>	<i>Diagnostic Radiology</i>	<i>June 1984</i>

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES			
FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	TYPE AND LENGTH OF TRAINING	
		LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	<i>University of Arkansas for Medical Sciences July 1981 - July 1984</i>	<i>30</i>	
b. RADIATION PROTECTION	<i>11</i>	<i>15</i>	
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	<i>11</i>	<i>5</i>	
d. RADIATION BIOLOGY	<i>11</i>	<i>15</i>	
e. RADIOPHARMACEUTICAL CHEMISTRY	<i>11</i>	<i>10</i>	

5. EXPERIENCE WITH RADIATION. (Actual use of Radioisotopes or Equivalent Experience)				
ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
<i><sup>99m</sup>Tc</i>	<i>100mCi</i>	<i>UAMS, Little Rock, AR</i>	<i>Jan, Feb, March 1984</i>	<i>Human</i>
<i><sup>131</sup>I</i>	<i>150mCi</i>	<i>11</i>	<i>April, May, Jun 1982</i>	<i>"</i>
<i><sup>201</sup>Tl</i>	<i>10mCi</i>	<i>11</i>	<i>11</i>	<i>11</i>
<i><sup>111</sup>In</i>	<i>25mCi</i>	<i>11</i>	<i>11</i>	<i>11</i>
<i><sup>133</sup>Xe</i>	<i>20mCi</i>	<i>11</i>	<i>11</i>	<i>11</i>

ARKANSAS DEPARTMENT OF HEALTH  
Bureau of Environmental Health Services  
Radiological Health  
APPLICATION FOR RADIOACTIVE MATERIAL LICENSE  
Supplement A - Human Use

If radioactive material is for "human use" (internal administration of radioactive material, or the radiation therefrom to human beings), complete this supplement and attach to the application for radioactive material license.

1. (a) Name of Authorized User or Radiation Safety Officer

Barbara A. Sandefur, M.D.

2. The Using Physician Indicated above is Licensed to Dispense Drugs in the Practice of Medicine in this State.

(Circle answer)

Yes

No

N/A

3. CERTIFICATION

SPECIALITY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
American Board of Radiology	Diagnostic Radiology	June 1984

4. Materials to be used: of materials requested under Item 6a, indicate which the using physician will use.

☒

all

☐

all except \_\_\_\_\_

☐

only those listed below

5. Physician Training and Experience (Check the appropriate box)

☒

A statement of the using physician's clinical training and experience, signed by preceptor physician, is submitted in support of the application

☐

The using physician is currently authorized as a user of radioactive material for human use under Arkansas Radioactive Material License No. \_\_\_\_\_

☐

Not Applicable

CONTROL NO 83787

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JUL 01 1987  
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6. Basic Radioisotope Training: Authorized User or Radiation Safety Officer.

A. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

Field of Training A	Location and Date(s) of Training B	Type and Length of Training	
		Lecture Laboratory Courses (Hours) C	Supervised Laboratory Experience (Hours) D
a. Radiation Physics and Instrumentation	University of Arkansas for Medical Sciences July 1981 - July 1984	30	
b. Radiation Protection	University of Arkansas for Medical Sciences July 1981 - July 1984	15	
c. Mathematics Pertaining to The Use and Measurement Of Radioactivity	University of Arkansas for Medical Sciences July 1981 - July 1984	5	
d. Radiation Biology	University of Arkansas for Medical Sciences July 1981 - July 1984	15	
e. Radiopharmaceutical Chemistry	University of Arkansas for Medical Sciences July 1981 - July 1984	10	

B. EXPERIENCE WITH RADIATION. (Actual use of Radioisotopes or Equivalent Experience)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
$^{99m}\text{Tc}$	100 mCi	UAMS, Little Rock, AR	Jan., Feb., March 1984 April, May, June 1982	Human
$^{131}\text{I}$	150 mCi	UAMS, Little Rock, AR	Jan., Feb., March 1984 April, May, June 1982	Human
$^{201}\text{Tl}$	10 mCi	UAMS, Little Rock, AR	Jan., Feb., March 1984 April, May, June 1982	Human
$^{111}\text{In}$	25 mCi	UAMS, Little Rock, AR	Jan., Feb., March 1984 April, May, June 1982	Human
$^{133}\text{Xe}$	20 mCi	UAMS, Little Rock, AR	Jan., Feb., March 1984 April, May, June 1982	Human
(others - see "Preceptor Statement")				

## APPLICATION FOR RADIOACTIVE MATERIAL LICENSE

## Supplement B - Preceptor Statement

THIS PAGE MAY BE COMPLETED BY THE PHYSICIAN'S PRECEPTOR (IF ANY) IN THE MEDICAL USE OF RADIOISOTOPES. WHEN THE INFORMATION IS NOT FURNISHED BY THE PRECEPTOR, THE NAME AND PRESENT ADDRESS OF THE PRECEPTOR (IF ANY) SHOULD BE SHOWN IN ITEM 4 AND 7 BELOW.

1. (a) USING PHYSICIAN'S NAME \* (b) NAME AND ADDRESS OF APPLICANT (if different from 1a)

Barbara A. Sandefur, M.D.

2. CLINICAL TRAINING AND EXPERIENCE OF PHYSICIAN WHO WILL USE RADIOACTIVE MATERIAL

ISOTOPE	CONDITIONS DIAGNOSED OR TREATED	NUMBER OF CASES	CASE PARTICIPATION (Circle numbers according to key on page 2)
Iodine 125, Iodine 131 Iodine 123	Diagnosis of Thyroid Function	78	( 1 2 3 4 )
	Dilution Studies	5	( 1 2 3 4 )
	Excretion Studies		1 2 3 4
	Liver or Kidney Function Studies	14	( 1 2 3 4 )
	Scanning Studies	7	( 1 2 3 4 )
	Others:		1 2 3 4
Iodine 131	Treatment of Hyperthyroidism	16	( 1 2 3 4 )
	Treatment of Cardiac Conditions		1 2 3 4
	Treatment of Thyroid Carcinoma	2	( 1 2 3 4 )
	Others:		1 2 3 4
Phosphorus 32	Treatment of Polycythemia	1	( 1 2 3 4 )
	Treatment of Luekemia		1 2 3 4
	Treatment of Bone Metastases		1 2 3 4
	Intracavitary Treatment		1 2 3 4
	Interstitial Treatment		1 2 3 4
	Others:		1 2 3 4
Gold 198	Scanning Studies		1 2 3 4
	Intracavitary Treatment		1 2 3 4
	Interstitial Treatment		1 2 3 4
	Others:		1 2 3 4
Mercury 197	Scanning Studies		1 2 3 4
	Others:		1 2 3 4
Chromium 51	Blood Determinations		1 2 3 4
	Scanning Studies		1 2 3 4
	Protein Loss Studies		1 2 3 4
	Others:		1 2 3 4
Cobalt 57, Cobalt 58, Cobalt 60	Diagnosis of Pernicious Anemia	8	( 1 2 3 4 )
	Others:		1 2 3 4

CONTROL NO. 83787

# CLINICAL TRAINING AND EXPERIENCE OF PHYSICIAN WHO WILL USE RADIOACTIVE MATERIAL (continued)

ISOTOPE	CONDITIONS DIAGNOSED OR TREATED	NUMBER OF CASES	CASE PARTICIPATION (Circle numbers according to key below)			
Cobalt 60, Iridium 192, Radium 226, Cesium 137	Intracavitary Treatment		1	2	3	4
	Interstitial Treatment		1	2	3	4
	Others:		1	2	3	4
Cobalt 60, Cesium 137	Teletherapy Treatment		1	2	3	4
	Others:		1	2	3	4
Strontium 85	Scanning Studies		1	2	3	4
	Others:		1	2	3	4
Strontium 90	Treatment of Eye Disease		1	2	3	4
	Others:		1	2	3	4
Technetium 99M	Scanning Studies	355	(1	2	3	4)
	Others:		1	2	3	4
Other Isotopes	In-111 Scans	56	(1	2	3	4)
	Tl-201 Cardiac Studies	13	(1	2	3	4)
	Ga-67 Scans	10	(1	2	2	4)

Key to numbers. Active Participation and Discussion

1. Examination of patients to determine suitability for radioisotope diagnosis and/or treatment and recommendations on dosage to be prescribed.
2. Collaboration in calibration and administration of dosages including related measurements and plotting of data.
3. Active period of training and experience of sufficient duration to permit followup of patients through treatment and post-treatment period including re-evaluation as to effectiveness and complications.
4. Study and discussion of case histories to establish most efficacious diagnostic and/or therapeutic techniques for this radioisotope use.

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

Medical Imaging Rotation - January, February, March, 1984  
- April, May, June, 1982

2/3 of time in nuclear medicine = 704 hours

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

a. Name of Supervisor

Charles M. Boyd, M.D.

b. Name of Institution

University of Arkansas for  
Medical Sciences

c. Mailing Address

4301 West Markham Street

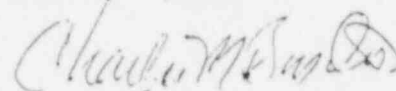
d. City

Little Rock, AR 72205

5. Materials License Number(s)

ARK-001-INC-6-86

6. Preceptor's Signature



7. Preceptor's Name (Please type or print)

Charles M. Boyd, M.D., Chairman  
Division of Nuclear Medicine

8. Date