

June 21, 1985

Jerome Rochlin, D.O.
Hewitt Road Clinic
2236 Packard Road
Ypsilanti, Michigan 48197

U.S. Nuclear Regulatory Commission
Material Licensing Section
Region III
799 Roosevelt Drive
Glen Ellyn, Illinois 60137

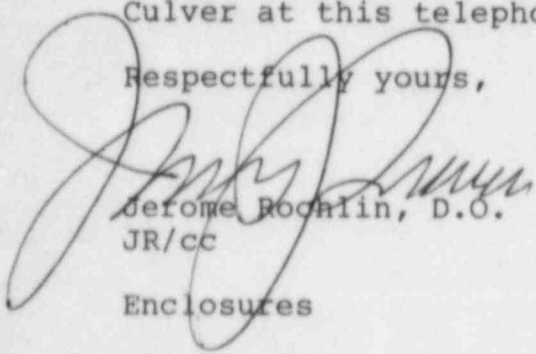
SUBJECT: Control No. 79160
Amendment to License No. 21-16306-01

ATTENTION: John Madera

In response to the telephone conversation of June 19, 1985, the following information is provided. The Leak Test Policy and Procedure is attached. A sample form for reporting results of the leak test is attached. Cheryl Culver, M.S., my consultant radiation physicist shall perform the leak test. She is currently authorized to perform this test under NRC License Nos. 21-20429-01, and 21-24305-01. NRC Form 313M Supplement A and her Curriculum Vitae are attached.

If you have any questions regarding this amendment request, please contact me, or my consultant radiation physicist, Cheryl Culver at this telephone number 313-562-6000 ext. 436.

Respectfully yours,


Jerome Rochlin, D.O.
JR/cc

Enclosures

RECEIVED

JUL 01 1985

REGION III

8508020218 850719
REG3 LIC30
21-16306-01 PDR

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LEAK TEST POLICY AND PROCEDURE

1. Policy

Any beta or gamma emitting source containing activity greater than 100 microcuries (alphas greater than 10 microcuries) shall be tested for leakage and/or contamination at intervals not to exceed six months, unless specifically exempted by our NRC license.

2. Procedure

- a. Wipe each source with dry cotton, especially along fabrication seams, edges and apparent cracks.
- b. Count each wipe in the Packard Auto-Gamma Counter (Model PRIAS BPGD, Serial No. 00211) for one minute using a wide window (15-1000 KeV).
- c. Count background for one minute using the same setting.

3. Calculations

- a. Subtract background to obtain Net counts per minute (cpm).
- b. Counting efficiencies are predetermined using mock standards and sources traceable to National Bureau of Standards, reproducible geometry and calculating the following:

$$\frac{\text{Net cpm}}{\text{Known dpm}} = \text{Efficiency}$$

- c. Solve the following:

$$\frac{\text{Net cpm}}{\text{Counting Efficiency}} = \text{Net dpm}$$

$$\frac{\text{Net dpm}}{2.22 \times 10^6 \text{ dpm}/\mu\text{Ci}} = \mu\text{Ci}$$

4. Action

- a. Any sample which has leaked more than 0.005 uCi must be removed from service immediately. Prevent the spread of contamination by covering the source with plastic. Contact the Radiation Safety Officer immediately.
- b. The Radiation Safety Officer will oversee repair or proper radioactive waste disposal. A report must be filed with the NRC within 5 days.
- c. Sealed sources must never be opened.
- d. Record the results of the sealed source leak results on the proper log form.

Radiological Physics Associates

Cheryl M. Culver, M.S.
Medical Nuclear Physicist
Diplomate, American Board of Radiology

1544 Pine Valley Blvd. #14
Ann Arbor, MI 48104
(313) 971-2023

CERTIFICATE OF SOURCE LEAK TEST

Manufacturer: Atomic Energy of Canada
Model No. C-324 Radionuclide: I-125
Activity: Test Date:

The subject source was tested for surface contamination and radioactivity leakage utilizing a wipe test technique approved by the NRC (License No. , Condition No.). Leakage/Contamination of less than 0.0005 microcurie was detected.

Cheryl Culver hereby certifies that the subject source was tested and determined to be free of leakage or contamination as specified by applicable regulations and specifications.

FOR:

PERFORMED BY: CHERYL CULVER, M.S.
Consultant Radiation Physicist

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER Cheryl M. Culver, M.S.	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE
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3. CERTIFICATION		
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
American Board of Radiology	Medical Nuclear Physics	June 1981

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	Wm. Beaumont School of Nuclear Medicine Technology 8/75-11/76	120	108
	U. of M. Rackham M.S. Radiological Health Science 9/77-1/78	90	72
b. RADIATION PROTECTION	Wm. Beaumont School of Nuclear Medicine Technology 8/75-11/76	60	12
	U. of M. Rackham M.S. Radiological Health Science 9/77-1/79	90	72
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	Wm. Beaumont School of Nuclear Medicine Technology 8/75-11/76	100	100
	U. of M. Rackham M.S. Radiological Health Science 1/78-5/78 and 9/78-1/79	126	12
d. RADIATION BIOLOGY	Wm. Beaumont School of Nuclear Medicine Technology 1/76-2/76	20	0
	U. of M. Rackham M.S. Radiological Health Science 1/78-5/78	72	12
e. RADIOPHARMACEUTICAL CHEMISTRY	Wm. Beaumont Hospital School of Nuclear Medicine 8/75-11/76 Royal Oak, Michigan	90	240

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

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
		(See Supplement A) exp. w/ radiation		

SUPPLEMENT A: RADIATION SAFETY OFFICER

CHERYL CULVER: EXPERIENCE WITH RADIATION

<u>Radionuclide</u>	<u>Maximum Amount</u>	<u>Where Experience Was Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
Co-60	2 Ci	U. of Michigan Phoenix Memorial Reactor	4 mos.	Supervised lab experience
Mo99/Tc99m	2 Ci	Wm. Beaumont Hospital VAMC Ann Arbor, MI. VAMC Allen Park, MI.	8 yrs.	Nuclear Medicine Imaging Agents
I-131	200 mCi	VAMC Ann Arbor, MI. VAMC Allen Park, MI.	7 yrs.	Thyroid therapies
I-125	5 mCi			
Fe-59	1 mCi			
Cr-51	25 mCi			
Co-57	10 mCi			
Ga-67	10 mCi	Wm. Beaumont Hospital		Research,
Xe-133	50 mCi	Royal Oak, MI.		Nuclear Medicine
In-111	500 uCi	VAMC Ann Arbor, MI.		imaging,
Yb-169	1 mCi	VAMC Allen Park, MI.		in-vitro tests
Tl-201	5 mCi	EJGH Metairie, LA.		Calibration tests
I-123	500 uCi	Chelsea Community Hosp.		
Cs-137	200 uCi	Chelsea, MI.	8 yrs.	
Co-60	100 uCi			
I-129	0.1 uCi			
Ba-133	200 uCi			
Ra-226	15 uCi			
Cs-137	25 mCi	U. of Michigan Medical Center, Ann Arbor, MI.	2 yrs.	Calibration of Survey Meters
Au-195	2 mCi	VAMC Ann Arbor, MI.	3 yrs.	Calibration
Na-22	5 mCi			
Sr-85	5 mCi			
Ce-141	10 mCi	VAMC Ann Arbor, MI.		
P-32	25 mCi	VAMC Allen Park, MI.	2½ yrs.	Research
C-14	1 mCi			
H-3	5 mCi			
Gd-153	10 mCi	VAMC Allen Park, MI.	½ yr.	Calibration

March 1985

CURRICULUM VITAE

NAME: Cheryl Marie Culver

ADDRESS: 1544 Pine Valley Blvd. #14
Ann Arbor, Michigan 48104
Telephone: 313/971-2023

RECENT POSITIONS: Radiation Safety Officer, VA Medical Center, Allen Park,
Michigan (1983 to present)
Supervisor of Continuing Education, East Jefferson General
Hospital, Metairie, Louisiana (1982 to 1983)
Radiation Safety Officer, VA Medical Center, Ann Arbor,
Michigan (1980 to 1982)
Chief Nuclear Medicine Technologist/Assistant Radiation Safety
Officer, VA Medical Center, Ann Arbor, Michigan (1978 to
1980)
Consultant Radiation Physicist, Radiological Physics Associates
(1984 to present)

SEX: Female

DATE OF BIRTH: April 14, 1952, Detroit, Michigan

MARITAL STATUS: Single

EDUCATION AND TRAINING:

1973	B.S., University of Michigan, Ann Arbor, Michigan
1975-1976	William Beaumont Hospital School of Nuclear Medicine Technology, Royal Oak, Michigan
1977-1979	M.S., (Radiological Health Science) University of Michigan Rackham Graduate School, Ann Arbor, Michigan

ACADEMIC APPOINTMENTS:

1983-1985	Instructor of Radiology, Wayne State Medical School Detroit, Michigan
1984-	Clinical Adjunct Instructor, School of Allied Health, Ferris State College, Big Rapids, Michigan

CERTIFICATION:

American Board of Radiology (Medical Nuclear Physics) June, 1982
American Registry of Radiologic Technologists (Nuclear Medicine) #131195
Nuclear Medicine Technology Certification Board 1979 #1069

COMMITTEE AND ADMINISTRATIVE SERVICE:

Radiation Safety Committee	1979 to present
Medical Center Safety Committee	1984 to present
Safety and Fire Prevention Committee	1979-1982

PROFESSIONAL SOCIETIES:

Society of Nuclear Medicine - 1976
Central Chapter of the Society of Nuclear Medicine - 1976
Health Physics Society - 1980
Great Lakes Chapter of the Health Physics Society - 1980
Deep South Chapter of the Health Physics Society - 1982
American Association of Physicists in Medicine - 1980

ACHIEVEMENTS:

Undergraduate - "graduation with distinction" from the University of Michigan, class honors March 30, 1983
Post graduate - Honor graduate of William Beaumont School of Nuclear Medicine Technology (1976), and Mallinckrodt Award for Outstanding Nuclear Medicine Student of the Year 1976

PRESENTATIONS:

1. Health Physics at a VA Medical Center by C.M. Culver. Presented at the Spring Symposium of the Great Lakes Chapter of the Health Physics Society, Detroit, Michigan, April 28, 1981.
2. The Role of Radiation Safety at a Typical Medical Center by C.M. Culver. Presented at the Annual Meeting of the Deep South Chapter of the Health Physics Society, St. Francisville, LA, March 4-5, 1982.
3. Risks and Benefits of Mammography for Screening Breast Disease by C.M. Culver. Presented at the Winter Institute of Medical Physics, Silverthorne, Colorado, February 11, 1985.

CONVERSATION RECORD

TIME 1:30 P

DATE 4/19/85

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☐ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

ORGANIZATION (Office, dept., bureau, etc.)

TELEPHONE NO.

Cheryl Culver, M.S. Consultant

313/562-6000
ex 436

SUBJECT

Southwest X-Ray Clinic

Amendment request # 79160

SUMMARY

Leak test analysis procedures

Please submit:

1. Manuf. Name & Model # of analysis instrumentation
2. Calibration procedure & frequency of instrument
3. Conversion calc. DPM or CPM → uCi
4. Who will perform test & training & Exp.
5. Step by step procedures for collecting samples
6. Submit system for recording results (Sample rec.)
7. Emergency Procedures - screamer how will contamination be contained.

ACTION REQUIRED

Please submit within 30 days in writing and refer to control # 79160

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

ACTION TAKEN

SIGNATURE

TITLE

DATE