



ST. VINCENT HOSPITAL AND MEDICAL CENTER

TOLEDO, OHIO 43608

January 15, 1979

Dear Sir:

Regarding your inquiry about our application for renewal and amendment of Byproduct Materials, License # 34-01216-03 (Control No. 97160), please note the following information:

1. See attached chart

Note that specialty and isotope experience of working members already is filed with the Nuclear Regulatory Commission as follows:

Stanley T. Pinsky, M.D.)  
Richard M. Myers, M.D. } on file under current NRC License # 34-01216-03  
Robert M. Stankey, M.D. }  
Kathryn J. Schroader, M.S.)  
Charles Kopecky } see attachment #1 to this letter

Jan  
15  
1979

- \* 2. The training program has been expanded to include all of the topics described in Item 12 of the Medical licensing guide (see attachment 2 of this letter). This training program includes instructions to new employees as well as refresher training courses offered annually and following significant policy changes.
3. Please note additional attachments 3 to this letter regarding Radiation safety procedures currently in use. In addition, please note that the dose calibrator as described in attachment E of license application is used to assay individual doses.
4. See appropriate precautions in Attachment 4 to this letter regarding the safe handling of I-131. This item has been added to the radiation safety procedures manual currently in use and is used in the training and refresher courses of radiation personnel.

Thanking you for your cooperation in this licensing procedure and anxiously awaiting your reply, I remain

Very truly yours,

*Kathryn J. Schroader, M.S.*

Kathryn Schroader, M.S.  
Radiation Safety Officer

8506100061 850517  
REG LIC30  
34-01216-03 PDR

ATTACHMENT #1

## ISOTOPE COMMITTEE

## CHAIRMAN

## CHIEF OF NUCLEAR MEDICINE

(presently R.M.Stankey, M.D.) \*

## SURGERY

## CHAIRMAN

G.Stark, M.D. \*\*

## MEDICINE

## CHAIRMAN

R.K.Agarwal, M.D.\*\*

## RADIOLOGY

## CHAIRMAN

S.T.Pinsky, M.D.\*

## PHYSICIST

## CHAIRMAN

Kathryn Schroader, MS\*

## PATHOLOGY

## CHAIRMAN

A.Golden, M.D.\*\*

## SURGICAL ADVISORY

Theron Hopple, M.D.\*\*  
(Neurology)James Gosman, M.D.\*\*  
(Orthopedics)Peter Cardillo, M.D. \*\*  
(Cardiovascular)Thomas O'Grady, M.D.\*\*  
(Thoracic Surgery)Frederick Bowdle, M.D.\*\*  
(O.B.Gynecology)Hosea Payne, M.D. \*\*  
(Genito-Urinary)

## MEDICAL ADVISORY

Phillip Horowitz, M.D.  
(Cardiology)Richard Schafer, M.D.\*  
(Hematology)SuPa Kang, M.D. \*\*  
(Gastroenterology)John Mareska, M.D.\*\*  
(Neurology)

## RADIOLOGY ADVISORY

R.E.Myers, M.D.\*  
R.W.Siders, M.D.\*P.M.Royen, M.D.\*\*  
S.E.Gordon, M.D. \*\*  
M.F.Fadell, M.D. \*\*

E. P. Ho, M.D. \*\*

## ADMINISTRATION

Mr.C. Kopecky \*

## RADIOPHARMACIST

Pharmatopes \*

## TECHNICAL

Audrey Chadwick, R.T. \*

RADIATION SAFETY  
OFFICERS

Kathryn Schroader, MS\*

R.E.Myers, M.D.\*

\* - designates working members of the Isotope Committee

\*\* - designates advisory members

ST VINCENT HOSPITAL AND MEDICAL CENTER

Department of Nuclear Medicine

CURRICULUM VITAE

S.T.Pinsky, M.D.

Ohio State University 1948 - 1951 BA June 1951

Ohio State University College of Medicine 1951 - 1955 MD 1955

Philadelphia General Hospital - Internship 1955 - 1956

Philadelphia General Hospital Resident - Radiology 1956 - 1959

American Board of Nuclear Medicine September 1976

CURRICULUM VITAE

R.M.Stankey, M.D.

Grand Rapids Junior College, Grand Rapids, Michigan 1942 - 1944, Associate in Science

University of Loyola Liberal Arts College, Chicago, Ill. summer quarter 1944

University of Loyola, School of Medicine, Chicago, Ill. 1944 - 1948 M.D.

Rotating Internship, Blodgett Memorial Hospital, Grand Rapids, Mich. 1948 - 1949

Medical Resident, Blodgett Memorial Hospital 1949 - 1952

Radiology Resident Blodgett Memorial Hospital 1952 - 1953

Radiology Resident, Wayne State University Hospitals, Detroit, Mi. 1955 - 1958

American Board of Nuclear Medicine, Sept. 1975

CURRICULUM VITAE

R.E. Myers, M.D.

University of Michigan, Ann Arbor, Mich. 1951 - 1953

Adelbert College, Western Reserve University, Cleveland, Ohio A.B. 1954

Case - Western Reserve University School of Medicine, Cleveland, Oh. 1954 - 1958 MD

Mt. Sinai Hospitals of Cleveland 1958 - 1959 Internship

Mt. Sinai Hospitals of Cleveland, 1959 - 1962 Radiology Residency

Mt. Sinai Hospitals of Cleveland, 1962 - 1963 Radiology Fellowship

Highland View Hospital Cleveland, 1961 Nuclear Medicine Training



FORM NRC-313M SUPPLEMENT A

U.S. NUCLEAR REGULATORY COMMISSION

(7-77)  
10 CFR 20TRAINING AND EXPERIENCE  
AUTHORIZED USER OR RADIATION PROTECTION OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION PROTECTION OFFICER

KATHRYN J. SCHROADER, M.S.

2. STATE OR TERRITORY IN  
WHICH LICENSED TO  
PRACTICE MEDICINE

## 3. CERTIFICATION

SPECIALITY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
AMERICAN BOARD OF RADIOLOGY	THERAPEUTIC RADIOLOGIC PHYSICS	WRITTEN EXAMINATION PASSED 6/78. ORAL EXAMINATION SCHEDULED DEC. 1978. ORAL EXAMINATION PASSED, DEC. 1978 (1. CERTIFIED, DEC. 1978)

## 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	UNIVERSITY OF KENTUCKY 1972 - 1975	360 hrs	1000 hrs (includes practicum experience)
b. RADIATION PROTECTION	UNIVERSITY OF KENTUCKY 1972 - 1975	50	100
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	UNIVERSITY OF KENTUCKY 1972 - 1975	720 hrs	—
d. RADIATION BIOLOGY	UNIVERSITY OF KENTUCKY 1972 - 1975	160 hrs	720 hrs
e. RADIOPHARMACEUTICAL CHEMISTRY	UNIVERSITY OF KENTUCKY 1972 - 1975	100 hrs	75 hrs

FORM NRC-313M SUPPLEMENT A  
(7-77)

EMPLOYMENT  
HISTORY  
CONTINUED:

ADMINISTRATIVE HEAD

St. Vincent Hospital and Medical Center  
Toledo, Ohio  
1967 - 1969

Department of Radiology. Complete administrative and technical responsibility for a department performing 80,000 patient examinations yearly.

TECHNICAL RADIOLOGICAL ADVISOR (SALES AND SERVICE)

General Aniline Corporation (GAF)  
Binghamton, New York  
1962 - 1967

Primarily responsible for state of Ohio, but called upon considerably to help solve radiologic problems nationwide.

CHIEF X-RAY TECHNOLOGIST

Huron Road Hospital  
Cleveland, Ohio  
1952 - 1962

Technical and teaching responsibility.

SUPERVISOR (RADIOLOGY)

Western Reserve University Hospital  
Babies and Children Division  
Cleveland, Ohio  
1947 - 1952

Technical and teaching responsibility.

PROFESSIONAL AFFILIATIONS:

American Registry of Radiologic Technologists

American Society of Radiologic Technologists

Surveyor of Joint Review Committee on Education in  
Radiologic Technology (ARPT)

PAST PRESIDENT-DIRECTOR

Cleveland Society of Radiologic Technologists  
St. Vincent Hospital and Medical Center Federal Credit Union  
Kiwanis Club of West Toledo  
Sickle Cell Detection Center

EMPLOYMENT  
HISTORY  
CONTINUED:

ADMINISTRATIVE HEAD

St. Vincent Hospital and Medical Center  
Toledo, Ohio  
1967 - 1969

Department of Radiology. Complete administrative and technical responsibility for a department performing 80,000 patient examinations yearly.

TECHNICAL RADIOLOGICAL ADVISOR (SALES AND SERVICE)

General Aniline Corporation (GAF)  
Binghamton, New York  
1962 - 1967

Primarily responsible for state of Ohio, but called upon considerably to help solve radiologic problems nationwide.

CHIEF X-RAY TECHNOLOGIST

Huron Road Hospital  
Cleveland, Ohio  
1952 - 1962

Technical and teaching responsibility.

SUPERVISOR (RADIOLOGY)

Western Reserve University Hospital  
Babies and Children Division  
Cleveland, Ohio  
1947 - 1952

Technical and teaching responsibility.

PROFESSIONAL AFFILIATIONS:

American Registry of Radiologic Technologists

American Society of Radiologic Technologists

Surveyor of Joint Review Committee on Education in  
Radiologic Technology (ABRT)

PAST PRESIDENT-DIRECTOR

Cleveland Society of Radiologic Technologists  
St. Vincent Hospital and Medical Center Federal Credit Union  
Kiwanis Club of West Toledo  
Sickle Cell Detection Center



Audrey Chadwick, R.T.

Graduated Woodward High School, Toledo, Ohio

June, 1947

Nurses Training, Mercy Hospital, Toledo, Ohio

June, 1947 to June 1948

X-ray Training, physicians office M.M. Thompson, Toledo, Oh.

June, 1948 to June 1950

X-ray experience, M.M. Thompson, M.D. office

1950 - 1957

Nuclear Medicine, St. Vincent Hospital and Medical Center  
Toledo, Ohio

1958 to present time

Nuclear Medicine Registry (ARRT)

1965

ATTACHMENT #2

For facilities in which radioactive material may become airborne, the diagrams should also include schematic descriptions of the ventilation system, with pertinent airflow rates, pressures, filtration equipment, and monitoring instruments. Diagrams should be drawn to a specified scale, or dimensions should be indicated.

Examples of acceptable facility and equipment descriptions are attached.

Item 12 Personnel Training Program

Submit a description of training required for all personnel who work with or in the vicinity of radioactive materials. The description should include the form of training (e.g., formal course work, lectures), the duration of training and the subject matter included. The training program should be of sufficient scope to ensure that all personnel, including clerical, nursing, housekeeping, and security personnel, receive proper instruction in the items specified in Section 19.12 of 10 CFR Part 19, including:

- a. Areas where radioactive material is used or stored.

- b. Potential hazards associated with radioactive material.
- c. Radiological safety procedures appropriate to their respective duties.
- d. Pertinent NRC regulations.
- e. The rules and regulations of the licensee.
- f. The pertinent terms of the license.
- g. Their obligation to report unsafe conditions.
- h. Appropriate response to emergencies or unsafe conditions.
- i. Their right to be informed of their radiation exposure and bioassay results.

You should verify that personnel will be properly instructed:

- a. Before assuming their duties with or in the vicinity of radioactive materials.

- b. During annual refresher training.
- c. Whenever there is a significant change in duties, regulations, or the terms of the license.

Item 13 Procedures for Ordering and Receiving Radioactive Materials

Submit a copy of written procedures for ordering radioactive materials, for receipt of materials during off-duty hours, and for notification of responsible persons upon receipt of radioactive materials. These procedures should be adequate to ensure that possession limits are not exceeded, that radioactive materials are secured at all times against unauthorized removal and that radiation levels in unrestricted areas do not exceed the limits specified in §20.105 of 10 CFR Part 20.

Security personnel, nursing personnel or anybody else who receives packages during off-duty hours, should be issued written instructions as to procedures to be followed for receiving, examining and securing the package and for notification procedures if the package is found or suspected to be leaking and immediate steps to be taken to prevent spread of contamination.



ATTACHMENT #3

ATTACHMENT J

Item 15. GENERAL LABORATORY RULES FOR THE SAFE USE OF RADIOACTIVE MATERIALS

a. See Attachment J-1, J-2

Radiation Protective Measures

- A. External - The basic objective measures to reduce external radiation exposure are time, distance, and shielding. In every situation these three factors must be considered jointly. While shielding is desirable in reducing the exposure, it must be remembered that doing the job in one half the time is just as effective as adding a half value thickness of shielding material. Working twice as far from a point source is as effective as adding two half value thickness of shielding material or doing the job in one fourth the time. Continuous use of monitoring equipment is the best method of evaluating the hazard and reducing the exposure. All users of radionuclides should have on hand adequate survey instruments to keep check on their operations.
- B. Internal - The prevention of internal exposure is more exacting and less easily performed than that of external exposure. The maximum permissible levels of radioactive contamination in the air or on laboratory surfaces is of such a low level that they cannot be detected with ordinary survey instruments. If a low level contamination is suspected contact your immediate supervisor for a survey. The general policy in the use of radioisotopes is to use such equipment and procedures which will reduce the probability of ingestion and inhalation of radioisotopes into the body. Outlined below are general rules and procedures for this purpose:
1. Eating, drinking, smoking and the application of cosmetics are not permitted in laboratories or rooms where radioactive materials are used or stored.
  2. Solutions shall not be pipetted by mouth.
  3. Appropriate protective clothing shall be worn. A laboratory coat and gloves are the minimum protective clothing to be worn. Protective clothing is not to be worn outside the laboratory. Never wear laboratory coats to the cafeteria. Monitor clothing before it is laundered.
  4. Wash hands thoroughly before leaving the laboratory.
  5. If contamination is suspected, all work shall be halted immediately and notify your supervisor.
  6. All injuries shall be monitored to determine possible contamination.
  7. Special protection is required for wounds so as to prevent the entry of radioactive materials. Water proof adhesive tape should seal any other bandaging.
  8. Everything in the laboratory or room should be considered to be contaminated and should be monitored before removing from the laboratory.
  9. All persons working with radioactive materials shall be aware of radiation safety procedures. The individual user is responsible to see that his people have been properly trained and have read the "Radiation Safety Manual".
  10. Radioactive materials shall be used and stored in a way which prevents unauthorized access to radioactive materials.
  11. All containers for radioactive materials shall be properly labeled, (per 10 CFR, part 20).

VII. B (Continued) \*

12. All areas and rooms in which radioactive materials are used or stored shall be properly posted, (per 10 CFR, part 20).

XXXXXXXXXXXXXXXXXXXX

13. Individual doses are monitored in a dose calibrator before being administered to the patient.

VII. B (Continued)

12. All areas and rooms in which radioactive materials are used or stored shall be properly posted, (per 10 CFR, part 20).

C Handling Procedures

1. Radioactive materials are to be handled only by persons aware of the hazards of the materials.
2. Shipping containers shall be opened and treated as though it were contaminated until it is monitored to prove differently.
3. When handling radioactive material personnel shall wear gloves and work on a surface covered with absorbent paper or equivalent material.
4. Remote handling equipment shall be used when the external radiation of a container exceeds 38 mr/hr at 1 centimeter.
5. To reduce the risk of spills to a minimum:
  - a. use double containers
  - b. use protective covering and lids
  - c. use unbreakable containers to store radioisotopes
  - d. use caution in transfers - try a "dry run".
  - e. use dry box for dusty materials
  - f. use propipettors - never pipette by mouth
  - g. use absorbent paper or equivalent to cover work surface to contain any possible spill.

D. Good Housekeeping Habits - Much of the job of preventing the spread of contamination is a matter of good housekeeping.

1. Keep the laboratory neat and clean. Keep the work area free of equipment and materials not required for the immediate procedure.
2. Wash hands and arms thoroughly before handling any objects which goes to the mouth, nose or eyes. Monitor the hands whenever contamination is suspected and decontaminate immediately.
3. Keep fingernails short and clean. Do not work with radioactive materials if there is a break in the skin below the wrist unless the wound is so protected that radioactive materials cannot gain access to the body. Cover the break with waterproof tape and wear gloves.

THINK



PERSONNEL MONITORING

- 1- Hands should be monitored after each technique
- 2- Film badges are to be worn at all times
- 3- Film badges are to be stored overnight in designated area

#### Administration of Intravenous Doses:

All radiopharmaceuticals administered via syringe are to be kept in protective shields from the time they are delivered from the centralized pharmacy to St. Vincent Hospital until they are administered to the patient. Such shielding will include lead containers, syringe shields, etc. Following injection the syringes are to be returned to their lead transport containers for return to the centralized pharmaceutical company.

ATTACHMENT #4

PROCEDURE FOR OPENING DOSES OF IODINE -131

Liquid iodine - 131 will be opened in a fume hood with adequate airflow. Rubber gloves will be worn by the individuals opening and administering the dose.

The dose is be administered to the patient from the lead shielded vial by the use of a plastic straw and rinsing the bottle several times with water injected into the bottle with a syringe.

The procedure is explained to the patient prior to receiving the dose to insure patient cooperation.