

NRC FORM 313M (9-81) 10 CFR 35	U.S. NUCLEAR REGULATORY COMMISSION APPLICATION FOR MATERIALS LICENSE – MEDICAL	Approved by OMB 3150-0041 Expires 9-30-83
---------------------------------------------	-------------------------------------------------------------------------------------------------	-------------------------------------------------

INSTRUCTIONS – Complete Items 1 through 26 if this is an initial application or an application for renewal of a license. Use supplemental sheets where necessary. Item 26 must be completed on all applications and signed. Retain one copy. Submit original and one copy of entire application to: Director, Office of Nuclear Materials Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Upon approval of this application, the applicant will receive a Materials License. An NRC Materials License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Parts 19, 20 and 35 and the license fee provision of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in Item 26 and the appropriate fee enclosed.

1.a. NAME AND MAILING ADDRESS OF APPLICANT (institution, firm, clinic, physician, etc.) INCLUDE ZIP CODE Irving Beran, M.D. 2169 S. White Horse Pike Lindenwold, NJ 08021 TELEPHONE NO.: AREA CODE (609) <u>783</u> <u>4206</u>	1.b. STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE USED (If different from 1.a.) INCLUDE ZIP CODE <p style="text-align: center;">SAME</p>
2. PERSON TO CONTACT REGARDING THIS APPLICATION <p style="text-align: center;">SAME</p> TELEPHONE NO.: AREA CODE () _____	3. THIS IS AN APPLICATION FOR: (Check appropriate item) a. <input type="checkbox"/> NEW LICENSE b. <input type="checkbox"/> AMENDMENT TO LICENSE NO. _____ c. <input checked="" type="checkbox"/> RENEWAL OF LICENSE NO. <u>29-15749-01</u>
4. INDIVIDUAL USERS (Name individuals who will use or directly supervise use of radioactive material. Complete Supplements A and B for each individual.) <p style="text-align: center;">Irving Beran, M.D.</p>	5. RADIATION SAFETY OFFICER (RSO) (Name of person designated as radiation safety officer. If other than individual user, complete resume of training and experience as in Supplement A.) <p style="text-align: center;">Irving Beran, M.D.</p>

6.a. RADIOACTIVE MATERIAL FOR MEDICAL USE					
RADIOACTIVE MATERIAL LISTED IN:	ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)	ADDITIONAL ITEMS:	MARK ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)
10 CFR 31.11 FOR IN VITRO STUDIES			IODINE-131 AS IODIDE FOR TREATMENT OF HYPERTHYROIDISM		
10 CFR 35.100, SCHEDULE A, GROUP I	X	AS NEEDED	PHOSPHORUS-32 AS SOLUBLE PHOSPHATE FOR TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA AND BONE METASTASES		
10 CFR 35.100, SCHEDULE A, GROUP II	X	AS NEEDED	PHOSPHORUS-32 AS COLLOIDAL CHROMIC PHOSPHATE FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.		
10 CFR 35.100, SCHEDULE A, GROUP III	X		GOLD-198 AS COLLOID FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.		
10 CFR 35.100, SCHEDULE A, GROUP IV		AS NEEDED	IODINE-131 AS IODIDE FOR TREATMENT OF THYROID CARCINOMA		
10 CFR 35.100, SCHEDULE A, GROUP V		AS NEEDED	XENON-133 AS GAS OR GAS IN SALINE FOR BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES.		
10 CFR 35.100, SCHEDULE A, GROUP VI					

6.b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN ITEM 6.a. (Sealed sources up to 3 mCi used for calibration and reference standards are authorized under Section 35.14(d), 10 CFR Part 35, and NEED NOT BE LISTED.)			
ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	MAXIMUM NUMBER OF MILLCURIES OF EACH FORM	DESCRIBE PURPOSE OF USE
8509190775 850830 REG1 LIC30 29-15749-01 PDR			

INFORMATION REQUIRED FOR ITEMS 7 THROUGH 23

For Items 7 through 23, check the appropriate box(es) and submit a detailed description of all the requested information. Begin each item on a separate sheet. Identify the item number and the date of the application in the lower right corner of each page. If you indicate that an appendix to the medical licensing guide will be followed, do not submit the pages, but specify the revision number and date of the referenced guide: Regulatory Guide 10.8 , Rev. _____ Date: _____

7. MEDICAL ISOTOPES COMMITTEE		15. GENERAL RULES FOR THE SAFE USE OF RADIOACTIVE MATERIAL (Check One)	
<input type="checkbox"/>	Names and Specialties Attached; and	<input type="checkbox"/>	Appendix G Rules Followed; or
<input type="checkbox"/>	Duties as in Appendix B; or _____ (Check One)	<input checked="" type="checkbox"/>	Equivalent Rules Attached
<input type="checkbox"/>	Equivalent Duties Attached	16. EMERGENCY PROCEDURES (Check One)	
8. TRAINING AND EXPERIENCE		<input type="checkbox"/>	Appendix H Procedures Followed; or
<input type="checkbox"/>	Supplements A & B Attached for Each Individual User; and	<input checked="" type="checkbox"/>	Equivalent Procedures Attached
<input type="checkbox"/>	Supplement A Attached for RSO.	17. AREA SURVEY PROCEDURES (Check One)	
9. INSTRUMENTATION (Check One)		<input type="checkbox"/>	Appendix I Procedures Followed; or
<input type="checkbox"/>	Appendix C Form Attached; or	<input checked="" type="checkbox"/>	Equivalent Procedures Attached
<input checked="" type="checkbox"/>	List by Name and Model Number	18. WASTE DISPOSAL (Check One)	
10. CALIBRATION OF INSTRUMENTS		<input type="checkbox"/>	Appendix J Form Attached; or
<input checked="" type="checkbox"/>	Appendix D Procedures Followed for Survey Instruments; or _____ (Check One)	<input checked="" type="checkbox"/>	Equivalent Information Attached
<input type="checkbox"/>	Equivalent Procedures Attached; and	19. THERAPEUTIC USE OF RADIOPHARMACEUTICALS (Check One)	
<input checked="" type="checkbox"/>	Appendix D Procedures Followed for Dose Calibrator; or _____ (Check One)	<input type="checkbox"/>	Appendix K Procedures Followed; or
<input type="checkbox"/>	Equivalent Procedures Attached	<input type="checkbox"/>	Equivalent Procedures Attached
11. FACILITIES AND EQUIPMENT		20. THERAPEUTIC USE OF SEALED SOURCES	
<input checked="" type="checkbox"/>	Description and Diagram Attached	<input type="checkbox"/>	Detailed Information Attached; and
12. PERSONNEL TRAINING PROGRAM		<input type="checkbox"/>	Appendix L Procedures Followed; or _____ (Check One)
<input checked="" type="checkbox"/>	Description of Training Attached	<input type="checkbox"/>	Equivalent Procedures Attached
13. PROCEDURES FOR ORDERING AND RECEIVING RADIOACTIVE MATERIAL		21. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE GASES (e.g., Xenon - 133)	
<input checked="" type="checkbox"/>	Detailed Information Attached	<input type="checkbox"/>	Detailed Information Attached
14. PROCEDURES FOR SAFELY OPENING PACKAGES CONTAINING RADIOACTIVE MATERIALS (Check One)		22. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL IN ANIMALS	
<input type="checkbox"/>	Appendix F Procedures Followed; or	<input type="checkbox"/>	Detailed Information Attached
<input checked="" type="checkbox"/>	Equivalent Procedures Attached	23. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL SPECIFIED IN ITEM 6.b	
<input type="checkbox"/>		<input type="checkbox"/>	Detailed Information Attached

24. PERSONNEL MONITORING DEVICES

TYPE (Check appropriate box)		SUPPLIER	EXCHANGE FREQUENCY
a. WHOLE BODY	<input checked="" type="checkbox"/> FILM	R. S. Landauer, Jr.	monthly
	<input type="checkbox"/> TLD		
	<input type="checkbox"/> OTHER (Specify)		
b. FINGER	<input type="checkbox"/> FILM		
	<input checked="" type="checkbox"/> TLD	R. S. Landauer, Jr.	monthly
	<input type="checkbox"/> OTHER (Specify)		
c. WRIST	<input type="checkbox"/> FILM		
	<input type="checkbox"/> TLD		
	<input type="checkbox"/> OTHER (Specify)		

d. OTHER (Specify)

25. FOR PRIVATE PRACTICE APPLICANTS ONLY

a. HOSPITAL AGREEING TO ACCEPT PATIENTS CONTAINING RADIOACTIVE MATERIAL

NAME OF HOSPITAL
Garden State Community Hospital

MAILING ADDRESS
Route 73 and Brick Road

CITY
Marlton

STATE
NJ

ZIP CODE
08053

b. ATTACH A COPY OF THE AGREEMENT LETTER SIGNED BY THE HOSPITAL ADMINISTRATOR.

c. WHEN REQUESTING THERAPY PROCEDURES, ATTACH A COPY OF RADIATION SAFETY PRECAUTIONS TO BE TAKEN AND LIST AVAILABLE RADIATION DETECTION INSTRUMENTS.

26. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 1a certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Parts 30 and 35, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

a. LICENSE FEE REQUIRED
(See Section 170.31, 10 CFR 170)

b. APPLICANT OR CERTIFYING OFFICIAL (Signature)

(1) NAME (Type of Print)

Irving Beran, M.D.

(2) TITLE

Radiologist

(1) LICENSE FEE CATEGORY:

7C

(2) LICENSE FEE ENCLOSED: \$

Previously submitted

c. DATE

March 27, 1985

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313M. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).
2. **PRINCIPAL PURPOSE(S)** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30-36 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.
3. **ROUTINE USES** The information may be used: (a) to provide records to State health departments for their information and use; and (b) to provide information to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for a NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you. A copy of the license issued will routinely be placed in the NRC's Public Document Room, 1717 H Street, N.W., Washington, D.C.
4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed.
5. **SYSTEM MANAGER(S) AND ADDRESS** Director, Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 8 - Training and Experience, Authorized User and Radiation Protection Office

I have previously submitted information regarding my training and experience in my prior application of 1973. A summary follows:

University of Pennsylvania - 1950-1954 A.B.
Hahnemann Medical College - Philadelphia, PA 1954-1958 M.D.
Internship 1958-1959 The Cooper Hospital, Camden, NJ Rotating
License States of New Jersey and Pennsylvania 1959-State Boards

3 Year RAdiology Residency (2 years Diagnostic & 1 Therapy)-
Philadelphia General Hospital, Philadelphia, PA, April 1, 1967
to March 31, 1970 - included 3 months Nuclear Medicine Training.

Associate Radiologist Burlington County Memorial Hospital,
Burlington, NJ, 1970 - 1975.

Passed American Board of Radiology examination June 12, 1971
in "Radiology" which included Nuclear Medicine.

Additional five years of office nuclear medicine
practice and numerous conferences since last application
of February 4, 1979.

Item #8

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

Form NRC 313M

Item 9 - Instrumentation

A. Survey Instruments

1. Nuclear Assc. CD V-700 G-M
0 - 0.5, 5.0 and 50 Mr/Hr. (1)
2. Dosimeter Corp. of America
Mod 3009 G-M Survey Meter
0-10 mR/hr. (1)
0-100 mR/hr.
0-1000 mR/hr.

B. Dose Calibrators

1. Nuclear Assc. Rad/Cal (1)

C. Diagnostic Instruments

1. Searle "Pho-Gamma HP" (1)
2. Picker "Magnascanner III" (1)
3. Picker "Cliniscaler" (1)
4. Picker Well Counter, 2" NaI (1)

Item #9

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 10 - Calibration of Instruments

- A. Survey instruments listed in Item 9 will be calibrated by a consultant physicist. His standards and procedures employed in the calibration of equipment are on file with the U.S. Nuclear Regulatory Commission under License #37-10851-01.

Wayne A. Meyers, M.S.
8306 Stenton Avenue
Philadelphia PA 19118

Such calibrations will be done at least once yearly, or following instrument repair.

In the event major repairs are required to either of these instruments, these will be performed by the manufacturer.

Following such repairs, re-calibration may be performed by these companies.

- B. The dose calibrator will be checked each day of use with both Cobalt 57 and Ba-133 standards, supplied by NEN and with certification of content traceable to National Bureau of Standards. As the only nuclides employed in this laboratory are Tc-99m and I-131, it is felt the above standards will adequately cover the energy range of greatest concern. Activity of the Cobalt 57 standard which has been ordered will be in excess of 1 mCi., that of the Ba-133 standard in excess of 0.1 mCi. During daily testing, any variation of dose calibrator response greater than 5% from nominal standard calibration value (corrected for decay) will indicate need for ~~instrument~~ repair or re-calibration by a representative of the supplying company. Instrument checked once yearly by consultant.

The dose calibrator will be tested for linearity of response at least quarterly, employing dedicated vials of Tc-99m containing initial activity at least equal to the highest activity in "instant" stock vials as purchased. This test will involve repeated reading of the test vial over a period of at least 3 days, and comparison of readings with anticipated test vial activities as calculated using the decay rate of this nuclide. Deviation from linearity will

ITEM #10

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 10, B (continued)

be calculated as the difference between actual and anticipated reading divided by anticipated reading, and multiplied by 100. Non-linearity in excess of 5% will be taken as indicating need for instrument repair.

The dose calibrator will be tested for variation of response with test sample volume, using Tc-99m and the method described in Appendix D, Section G of the licensing guide. This test will cover the full range of stock vial volumes arising during the normal work day. Deviation in response greater than 2% will be plotted against volume as correction factor for measurements made with the dose calibrator at each volume.

The calibrator will be tested for variation of response with each type syringe employed in daily work. This will be done by assaying stock vial before and after withdrawal into syringe, and comparing difference in readings with that of the syringe used for the withdrawal.

- C. Proper operation of the well counter - cliniscaler combination will be checked (on days in use) with a Cs-137 rod source.

Item #10

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 11 - Facilities and Equipment

One room of the first floor of this building, all of which is under my control, is devoted to nuclear medicine, the remainder of the first floor to office and waiting room and radiology. A plan view of this room showing location of isotope storage and work area, rectilinear scanner, gamma camera and well counter is enclosed. This room is kept locked at all times studies are not in progress or personnel not present. This room is devoted largely to Technetium bone imaging and to some thyroid imaging and uptake work and to an occasional Technetium liver, spleen, lung, or kidney scan. A lead brick surrounded storage enclosure in the lower right room corner is employed for hot waste. Used gloves and cotton sponges are placed in the lead brick surrounded storage enclosure to decay. Used unit dosages in syringes are replaced in the lead container and then into the delivery suitcase for pick-up by delivery personnel on the next delivery day. Normally no ^{113}I is kept on hand. The work load using Technetium averages approximately only 3 to 5 per week. Technetium is ordered on a unit dose basis for day of use. Handling devices, protective gloves, and lab gowns and decontamination materials are kept in the work area.

Item #11

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 12 - Personnel Training Program

I personally, Irving Beran, M.D., do the nuclear work myself. No technologists are presently working with me in Nuclear Medicine. I have a ring and body badge. A description of my training has previously been given under Item 8.

Item 12

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 13 - Procedures for Ordering and Receiving Radioactive Material

All radioactive materials are ordered solely by Dr. Beran and on an "as needed" basis. As the inventory for I131 capsules and instant Te-99m are quite simple and as the work load is quite low it is extremely unlikely that the possession limits could be exceeded.

Seen also Item 14.

Item 13

March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 14 - Procedures for Safely Opening Packages Containing
Radioactive Materials

All packages of radioactive materials are examined and opened by Dr. Beran only. Examination for physical damage, evidence of loss of containment, radiation levels at surface and at 3 feet will be performed by Dr. Beran.

All deliveries of radioactive materials are made by Nuclear Pharmacy Inc., 3133 N. 2nd Street, Philadelphia, PA 19106 or Mallinckrodt, Inc., Diagnostic Imaging Services, 20 Independence Court, Folcroft, PA 19032.

All radioactive waste will be returned to the vendor involved via his carrier.

The courier has the key to the office and all deliveries made during off hours are taken to the nuclear medicine room and locked therein.

Item 14

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 15 - General Rules for the Safe Use of Radioactive Material

1. Protective clothing and disposable gloves must be worn at all times during use of radioactive materials.
2. Film badge (body type) must be worn at all times when on duty. Finger badge (TLD) must be worn during preparation and assay of radioactive doses and during injection of doses.
3. Kit preparation and injection areas must be surveyed for contamination at end of each day, or immediately if loss of containment is suspected.
4. Hands and clothing must be monitored for contamination before leaving work area.
5. Each patient dose must be assayed in the dose calibrator. Do not employ any doses which differ by more than 10% from prescribed.
6. Syringe shields must be used during preparation of doses and during injection of doses except in those cases where such use would compromise the patient's well-being, or make a safe injection impossible.
7. Do not eat, drink or smoke in any area (hot lab, imaging rooms) where radioactive materials are used or stored.
8. Radioactive waste must be disposed of only in specifically designated containers. If dry waste (injection site swabs, etc.) is not monitored and proven non-radioactive, this waste must go to the designated container, not into regular trash.
9. Radioactive material (other than sub-microcurie quantities) must always be transported in shielded containers. Thickness of shielding must be appropriate to quantity and type of active material. If not sure how much shielding is necessary, check it with the G-M survey meter.
10. The Nuclear Medicine Laboratory must be fully secured against unauthorized entry at all times personnel are not present.
11. It has been and will continue to be the policy in this office that all handling "package opening, dose and kit preparation, dose calibration and injection of nuclide" are performed solely by Dr. Beran.

Item 15

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 15 (continued)

The aforementioned notwithstanding, "Rules for Use of
Radioactive Materials and Conduct in Laboratory" is enclosed
with this item and is posted in the laboratory.

Item 15

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

ITEM NRC 313M

Item 16 - Emergency Procedures

In Event of Spill:

1. NOTIFY: Notify persons in the area that a spill has occurred.
2. PREVENT THE SPREAD: Cover the spill with absorbent paper.
3. CLEAR UP: Use disposable gloves and remote handling tongs. Carefully fold the absorbent paper and pad. Insert into a plastic bag and dispose of in the radioactive waste container. Include all other contaminated materials such as disposable gloves.
4. SURVEY: With a G-M Survey Meter, check the area around the spill, your hands and clothing for contamination.

Item 16

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

Item 17 - Area Survey Procedures

Kit and dose preparation areas and injection locations will be monitored with G-M survey meter at end of each work session. On evidence of surface contamination at these sites, decontamination procedures will be undertaken until return to essentially background.

Once per work week, more extensive survey of the entire nuclear medicine laboratory will be performed. This will include area radiation level determinations, scans of work surfaces and floor areas near injection sites, and wipes of possibly contaminated surfaces. Wipes will be assayed in the 2" NaI well scintillation detector. Criteria for significant findings (need for action) are:

1. Area survey: levels in excess of 0.1 to 0.2 mR/hr. except in immediate vicinity of isotope storage areas.
2. Wipes: removable contamination yielding in excess of 200 C/Min. over well counter background rate. This corresponds to approximately 0.001 uCi. of removed Tc-99m.

During weekly surveys, the region beyond the outside wall adjacent to storage cubicle will be surveyed only if levels directly above the cubicle within the room are in excess of 0.5 mR/hr. With this exception, inclusion of adjacent unrestricted regions in routine weekly survey is deemed unnecessary under present workload conditions and inventory.

Item 17

Date: March 27, 1985

IRVING N. BERAN, M.D., P.A.
RADIOLOGY and NUCLEAR MEDICINE

2169 S. WHITE HORSE PIKE
LINDENWOLD, NEW JERSEY 08021

Telephone 783-4206

FORM NRC 313M

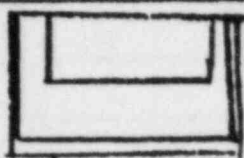
Item 18 - Waste Disposal

After use, unit doses that have been obtained in syringes are replaced in lead containers and replaced in delivery suitcase or cannister and held for courier from either Mallinckrodt or Nuclear Pharmacy, who return them to their respective shipper. Contaminated swabs and gloves are held behind shielding for at least 10 half lives. At the end of this, or a longer period, this material is removed from shielding and checked carefully with G-M survey meter in a low background location. IF G-M meter indicates no activity, the material is disposed of through normal channels.

Item 18

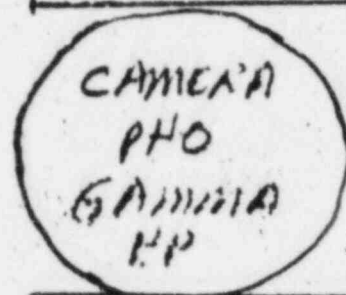
Date: March 27, 1985

2169 S White House Pike
Lindewald, N.J. 08021



DOSE
CALIBRATOR

PHO GAMMA
HP CONSOLE



COT

MAGNASCANNER

III

CLINISCALEX
ON MAGNASCANNER

COLLIMATOR
CART

WELL
COUNTER

CER
BRI
STOR
AGE

September 8, 1978

**Garden State
Community
Hospital**

Irving Beran, M.D., F.A.
2169 South White Horse Pike
Lindenwold, New Jersey 08021

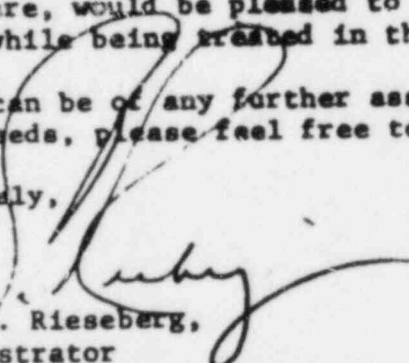
Dear Dr. Beran:

Regarding our telephone conversation, it is my understanding that you wish to refer patients, who may have received an excess amount of radioactive exposure, to Garden State Community Hospital.

Please be advised that Garden State Community Hospital stands ready to assist you in the referral of these patients for radiation accident or other, and that members of our medical staff, I am sure, would be pleased to meet your patients' medical care needs while being treated in this facility.

If we can be of any further assistance to you in meeting patient care needs, please feel free to contact me.

Sincerely,


Eric F. Rieseberg,
Administrator

EFR:11