

<b>NRC FORM 313M</b> (9-81) 10 CFR 35	<b>U.S. NUCLEAR REGULATORY COMMISSION</b> <b>APPLICATION FOR MATERIALS LICENSE – MEDICAL</b>	Approved by OMB 3150-0041
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**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.

<b>1.a. NAME AND MAILING ADDRESS OF APPLICANT</b> (institution, firm, clinic, physician, etc.) INCLUDE ZIP CODE Springfield Medical Imaging Center P.O. Box 247 Baltimore Pike & Andrew Rd. Springfield, PA 19064 TELEPHONE NO.: AREA CODE <u>215</u> <u>328-1068</u>	<b>1.b. STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE USED</b> (If different from 1.a.) INCLUDE ZIP CODE <p style="text-align: center;">same</p>
<b>2. PERSON TO CONTACT REGARDING THIS APPLICATION</b> Walter L. Robinson, M.S. Consultant Certified Radiation Physicist TELEPHONE NO.: AREA CODE <u>717</u> <u>397-2569</u>	<b>3. THIS IS AN APPLICATION FOR:</b> (Check appropriate item) a. <input checked="" type="checkbox"/> NEW LICENSE b. <input type="checkbox"/> AMENDMENT TO LICENSE NO. _____ c. <input type="checkbox"/> RENEWAL OF LICENSE NO. _____
<b>4. INDIVIDUAL USERS</b> (Name individuals who will use or directly supervise use of radioactive material. Complete Supplements A and B for each individual.) Donald Kasper, M.D. Ben-Zion Friedman, M.D. <p style="text-align: center;">(see cover letter)</p>	<b>5. RADIATION SAFETY OFFICER (RSO)</b> (Name of person designated as radiation safety officer. If other than individual user, complete resume of training and experience as in Supplement A.) Donald Kasper, M.D., residing Walter L. Robinson, M.S., consulting

6.a. RADIOACTIVE MATERIAL FOR MEDICAL USE			
RADIOACTIVE MATERIAL LISTED IN:	ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)	<div style="display: flex; justify-content: space-between;"> <div>ADDITIONAL ITEMS:</div> <div>MARK ITEMS DESIRED "X"</div> <div>MAXIMUM POSSESSION LIMITS (In millicuries)</div> </div>
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	2000	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	X	2000 Gd-153	

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 MILLICURIES OF EACH FORM	DESCRIBE PURPOSE OF USE
Gd-153	GdO <sub>2</sub>  Gulf Nuclear GD-1 or other N.R.C. registered for example Lunar Radiation DP-3	1200 mCi each 2000 mCi total	Dual-Photon Absorptiometry quantification and imaging.  NR-430-D-101-S
(all sealed sources will be leak-tested semi-annually)			

# 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. 1 Date: October, 1980

7. MEDICAL ISOTOPES COMMITTEE <u>N/A</u>		15. GENERAL RULES FOR THE SAFE USE OF RADIOACTIVE MATERIAL (Check One)	
<input type="checkbox"/>	Names and Specialties Attached; and	<input checked="" type="checkbox"/>	Appendix G Rules Followed; or
<input type="checkbox"/>	Duties as in Appendix B; or	<input type="checkbox"/>	Equivalent Rules Attached
<input type="checkbox"/>	Equivalent Duties Attached (Check One)	16. EMERGENCY PROCEDURES (Check One)	
8. TRAINING AND EXPERIENCE		<input checked="" type="checkbox"/>	Appendix H Procedures Followed; or
<input type="checkbox"/>	Supplements A & B Attached for Each Individual User; and	<input type="checkbox"/>	Equivalent Procedures Attached
<input checked="" type="checkbox"/>	Supplement A Attached for RSO. See Cover Letter	17. AREA SURVEY PROCEDURES (Check One)	
9. INSTRUMENTATION (Check One)		<input checked="" type="checkbox"/>	Appendix I Procedures Followed; or
<input type="checkbox"/>	Appendix C Form Attached; or	<input 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 checked="" type="checkbox"/>	Appendix J Form Attached; or
<input checked="" type="checkbox"/>	Appendix D Procedures Followed for Survey Instruments; or with cover letter (Check One)	<input 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 with cover letter (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 - See Cover Letter	<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 as per appendix E	<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 type="checkbox"/>	Equivalent Procedures Attached	23. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL SPECIFIED IN ITEM 6.b	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	Detailed Information Attached - As per manufacturer

# 24. PERSONNEL MONITORING DEVICES

TYPE (Check appropriate box)		SUPPLIER	EXCHANGE FREQUENCY
a. WHOLE BODY	FILM	R.S. Landaurer	Monthly
	TLD		
	OTHER (Specify)		
b. FINGER	FILM		
	TLD	R.S. Landaurer	Monthly
	OTHER (Specify)		
c. WRIST	FILM		
	TLD		
	OTHER (Specify)		

d. OTHER (Specify)

*Aug - 13 - I*

Applicant	108
Check No.	\$580.00
Date Rec'd	8/9/85
Received By	Jickels

# 25. FOR PRIVATE PRACTICE APPLICANTS ONLY

a. HOSPITAL AGREEING TO ACCEPT PATIENTS CONTAINING RADIOACTIVE MATERIAL		b. ATTACH A COPY OF THE AGREEMENT LETTER <input checked="" type="checkbox"/> SIGNED BY THE HOSPITAL ADMINISTRATOR.	
NAME OF HOSPITAL Taylor Hospital		c. WHEN REQUESTING THERAPY PROCEDURES, ATTACH A COPY OF RADIATION SAFETY PRECAUTIONS TO BE TAKEN AND LIST AVAILABLE RADIATION DETECTION INSTRUMENTS.	
MAILING ADDRESS E. Chester Pike			
CITY Ridley Park,	STATE PA		

# 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) <i>Donald J. Kasper</i> Springfield Medical Imaging Center	
(1) LICENSE FEE CATEGORY: 7 c.		(1) NAME (Type of Print) Donald J. Kasper, M.D.	
(2) LICENSE FEE ENCLOSED: \$ 580.00		(2) TITLE Director	
		c. DATE 7/16/85	

*Our 75th Anniversary 1910-1985*



**TAYLOR HOSPITAL**

A Tradition of Caring

RIDLEY PARK, PENNSYLVANIA 19078  
215 / 595 - 6000

July 18, 1985

Donald J. Kasper, M.D.  
Springfield Medical Imaging Center  
381 Baltimore Pike  
Springfield, PA 19064

Re: Emergency/Urgent Treatment

Dear Dr. Kasper:

As we have discussed in previous conversations, the Springfield Medical Imaging Center (SMIC) expects to begin providing nuclear medicine services at their Springfield Township site in September, 1985. This letter is intended to assure SMIC that Taylor Hospital will treat any SMIC patients who experience an untoward reaction or other emergency/urgent situation(s) which may result from nuclear medicine services provided by SMIC.

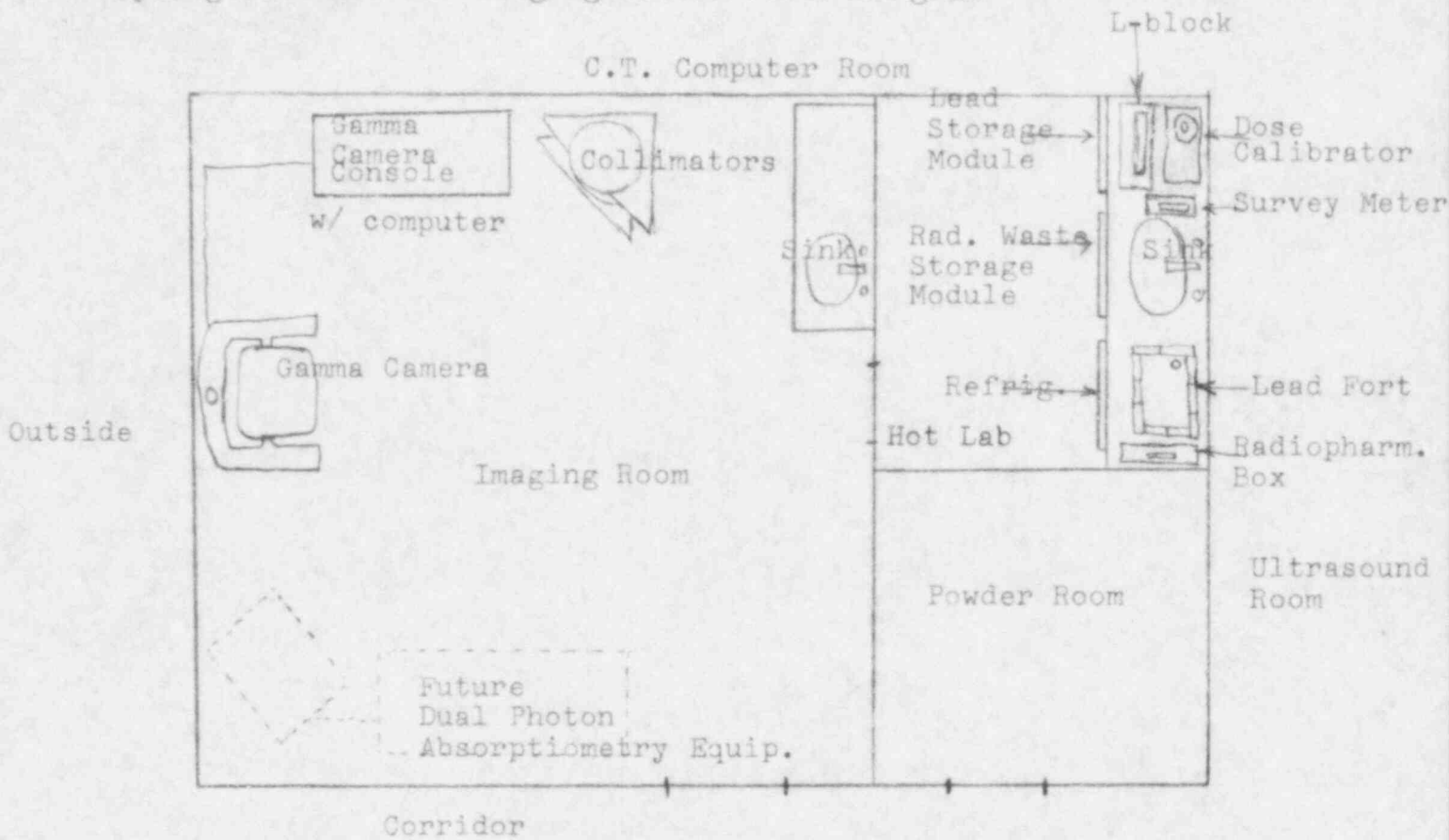
Please contact me if you need any additional assurances.

Sincerely yours,

James T. Burnham  
Vice President  
Management Services

JTB/msm

# Springfield Medical Imaging Center Floor Diagram





APPENDIX C  
INSTRUMENTATION

1. Survey meters

- Ludlum G.M.
- a. Manufacturer's name: \_\_\_\_\_
- Manufacturer's model number: 3 w/ 44-7 End-window probe
- Number of instruments available: 1
- Minimum range: 0.01 mR/hr to 0.2 mR/hr
- Maximum range: 10 mR/hr to 200 mR/hr
- b. Manufacturer's name: Cdv-700 G.M.
- Manufacturer's model number: 6b.
- Number of instruments available: 1
- Minimum range: 0.01 mR/hr to 0.05 mR/hr Back-up
- Maximum range: 1.0 mR/hr to 50.0 mR/hr

2. Dose calibrator

- Manufacturer's name: At. Prod.
- Manufacturer's model number: Cal-Rad II 34-061
- Number of instruments available: 1

3. Instruments used for diagnostic procedures

Type of Instrument	Manufacturer's Name	Model No.
G.E. Star Cam	Gamma Camera w/computer	Imaging
Lunar Radiation (or equivalent)	Dual-Photon Absorptiometry Equipment	

4. Other (e.g., liquid scintillation counter, area monitor, velocimeter)

If Mo-99/Tc-99m generator possessed a meter will be possessed capable of reading  $\geq 1$  R/hr.

# CALIBRATION OF DOSE CALIBRATOR

## A. Sources Used for Linearity Test

(Check as appropriate)

\_\_\_\_\_ First elution from new Mo-99/Tc-99m generator

or

X Other\* (specify) See cover letter

## B. Sources Used for Instrument Accuracy and Constancy Tests

Radionuclide	Suggested Activity (mCi)	Activity (mCi)	Accuracy
Co-57	3-5	<u>1-5</u>	<u>+/-5 %</u>
Ba-133	0.1-0.5	<u>0.1-0.3</u>	<u>+/-5 %</u>
Cs-137	0.1-0.2	_____	_____
Ra-226	1-2	_____	_____
_____		_____	_____

C. X The procedures described in Section 2 of Appendix D will be used for calibration of the dose calibrator

or

X Equivalent procedures are attached. (See cover letter)

\*For licensees who are not authorized for Mo-99/Tc-99m generators, activity must be equivalent to the highest activity used.

Please \_\_\_\_\_ include  
the following procedure for dose calibrator activity linearity  
check in lieu of our current procedure (that implied in NRC Reg.  
Guide 10.8 Appendix D., Part E, p. 10.8 - 27 to 28).

The new procedure is as follows:

The procedure is similar to the commercially available "Calcorp"  
sequential lead cylinder method. The variance in our method  
is that it is a Sequential Concentric Lead Cylinder Method  
(SCLCM). A lead disk is placed in the bottom of the radioisotope  
calibrator "dipper". Then sequentially 5 lead cylinders are  
concentrically placed over top of each other for 5 successive  
reductions in "apparent" assay readings. Then a lead disk is  
placed on top of the cylinders column, and a 6th reading is  
made. These values are reported on the enclosed form.

The lead effects a contrived degradation of radiation  
intensity measured over the useful range of assay values from  
total eluate activity to micro curie quantities. The effective  
"decay-equivalent" hours evolved empirically and averaged over  
20 trials are as follows:

shield 1	= 18.93 hrs.	+ 3.9%
shield 2	= 27.88 hrs.	+ 2.4%
shield 3	= 35.87 hrs.	+ 3.1%
shield 4	= 43.05 hrs.	+ 1.3%
shield 5	= 47.88 hrs.	+ 2.8%
Top lid	= 53.90 hrs.	- 2.6%

The assayed values are divided by the original unshielded total  
eluate assay for a fraction (decimal).

The natural log of this **decimal** is divided by  $0.1155 = 0.693/6\text{hr.}$   
to equal the "calculated effective time elapsed". This calculated  
value is compared with the empirically-determined values of  
"shielded-effective hours". A percent variance is calculated.  
The mean of the 6 variances is tabulated and compared for  
quarterly changes. Notation is made if the unit is autoranging  
or not. A plot is then made of assayed shielded values versus  
calculated elapsed time to assure acceptable linearity and  
 $\pm 5\%$  precision.

The summation of error between run variability, between instrument  
variability, geometric mispositioning, and high to low original  
activity all add to  $\leq \pm 3.9\%$  for each measurement. Since this  
is within  $\pm 5\%$ , and consistent with our previous method, we  
submit this as our alternative method to comply with the intent  
of the NRC rules governing this check.

We are able to do the check quarterly or more frequently now  
with total eluate without loss of the use of that eluate clinically.  
We can do the check in less than 5 minutes, thus saving technological  
and professional time which is cost-effective and within  
A.L.A.R.A. constraints in our institution.

The method was refined by our consultant radiation physicist,  
Walter L. Robinson, M.S. A.B.S.N.M. (phone-(717) 397-2569),  
who can be contacted for further details on the method.

It is hoped that this information will be adequate for you to  
assess the equivalency of our proposed procedure to our existing one.



## WEEKLY DOSE CALIBRATOR REFERENCE STANDARD DECAY TABLE PREPARED TO ASSIST DAILY CHECKS

THIS TABLE SPECIFICALLY CALCULATED FOR: XYZ MEDICAL CENTER

Week Of:	Co-57	Ba-133
1/2/84	4.91(4.66-5.16)	284.6(270.37-298.83)
1/9/84	4.82(4.58-5.06)	284.3(270.09-298.52)
1/16/84	4.74(4.5-4.98)	283.9(269.71-298.1)
1/23/84	4.65(4.42-4.88)	283.6(269.42-297.78)
1/30/84	4.57(4.34-4.8)	283.2(269.04-297.36)
2/6/84	4.49(4.27-4.71)	282.9(268.76-297.05)
2/13/84	4.41(4.19-4.63)	282.5(268.38-296.63)
2/20/84	4.33(4.11-4.55)	282.2(268.09-296.31)
2/27/84	4.25(4.04-4.46)	281.8(267.71-295.89)
3/5/84	4.18(3.97-4.39)	281.5(267.43-295.58)
3/12/84	4.1(3.9-4.31)	281.1(267.05-295.16)
3/19/84	4.03(3.83-4.23)	280.8(266.76-294.84)
3/26/84	3.96(3.76-4.16)	280.4(266.38-294.42)
4/2/84	3.89(3.7-4.08)	280.1(266.1-294.11)
4/9/84	3.82(3.63-4.01)	279.7(265.72-293.69)
4/16/84	3.75(3.56-3.94)	279.4(265.43-293.37)
4/23/84	3.68(3.5-3.86)	279(265.05-292.95)
4/30/84	3.62(3.44-3.8)	278.7(264.77-292.64)
5/7/84	3.55(3.37-3.73)	278.3(264.39-292.22)
5/14/84	3.49(3.32-3.66)	278(264.1-291.9)
5/21/84	3.43(3.26-3.6)	277.6(263.72-291.48)
5/28/84	3.37(3.2-3.54)	277.3(263.44-291.17)
6/4/84	3.31(3.14-3.48)	276.9(263.06-290.75)
6/11/84	3.25(3.09-3.41)	276.6(262.77-290.43)
6/18/84	3.19(3.03-3.35)	276.2(262.39-290.01)
6/25/84	3.13(2.97-3.29)	275.9(262.11-289.7)
7/2/84	3.08(2.93-3.23)	275.5(261.73-289.28)
7/9/84	3.02(2.87-3.17)	275.2(261.44-288.96)
7/16/84	2.97(2.82-3.12)	274.9(261.16-288.65)
7/23/84	2.92(2.77-3.07)	274.5(260.78-288.23)
7/30/84	2.86(2.72-3)	274.2(260.49-287.91)
8/6/84	2.81(2.67-2.95)	273.8(260.11-287.49)
8/13/84	2.76(2.62-2.9)	273.5(259.83-287.18)
8/20/84	2.71(2.57-2.85)	273.2(259.54-286.86)
8/27/84	2.67(2.54-2.8)	272.8(259.16-286.44)
9/3/84	2.62(2.49-2.75)	272.5(258.88-286.13)
9/10/84	2.57(2.44-2.7)	272.1(258.5-285.71)
9/17/84	2.53(2.4-2.66)	271.8(258.21-285.39)
9/24/84	2.48(2.36-2.6)	271.4(257.83-284.97)
10/1/84	2.44(2.32-2.56)	271.1(257.55-284.66)
10/8/84	2.39(2.27-2.51)	270.8(257.26-284.34)
10/15/84	2.35(2.23-2.47)	270.4(256.88-283.92)
10/22/84	2.31(2.19-2.43)	270.1(256.6-283.61)
10/29/84	2.27(2.16-2.38)	269.8(256.31-283.29)
11/5/84	2.23(2.12-2.34)	269.4(255.93-282.87)
11/12/84	2.19(2.08-2.3)	269.1(255.65-282.56)
11/19/84	2.15(2.04-2.26)	268.8(255.36-282.24)
11/26/84	2.11(2-2.22)	268.4(254.98-281.82)
12/3/84	2.07(1.97-2.17)	268.1(254.7-281.51)
12/10/84	2.04(1.94-2.14)	267.7(254.32-281.09)
12/17/84	2(1.9-2.1)	267.4(254.03-280.77)
12/24/84	1.96(1.86-2.06)	267.1(253.75-280.46)
12/31/84	1.93(1.83-2.03)	266.7(253.37-280.04)

## CALIBRATION OF SURVEY INSTRUMENTS

Check appropriate items.

- |          |    |  |
|----------|----|--|
| <u>X</u> | 1. | Survey instruments will be calibrated at least annually and following repair.  |
| <u>X</u> | 2. | Calibration will be performed at two points on each scale used for radiation protection purposes, i.e., at least up to 1 R/hr. |

The two points will be approximately 1/3 and 2/3 of full scale. A survey instrument may be considered properly calibrated when the instrument readings are within  $\pm 10$  percent of the calculated or known values for each point checked. Readings within  $\pm 20$  percent are considered acceptable if a calibration chart, graph, or response factor is prepared, attached to the instrument, and used to interpret readings to within  $\pm 10$  percent. Also, when higher scales are not checked or calibrated, an appropriate precautionary note will be posted on the instrument.

3. Survey instruments will be calibrated
- \_\_\_\_\_ a. By the manufacturer
- \_\_\_\_\_ b. At the licensee's facility

- ### (1) Calibration source

Manufacturer's name \_\_\_\_\_  
Model no. \_\_\_\_\_  
Activity in millicuries \_\_\_\_\_  
or \_\_\_\_\_  
Exposure rate at a specified distance \_\_\_\_\_  
Accuracy \_\_\_\_\_  
Traceability to primary standard \_\_\_\_\_

- \_\_\_\_\_ (2) The calibration procedures in Section I of Appendix D will be used  
or  
\_\_\_\_\_ (3) The step-by-step procedures, including radiation safety procedures, are attached.

- |          |                                    |
|----------|------------------------------------|
| <u>X</u> | c. By a consultant or outside firm |
|----------|------------------------------------|

- (1) Name Walter L. Robinson & Associates

- (2) Location Memorial Hospital, York, PA

- ### (3) Procedures and sources

X have been approved by NRC and are on file in License No. 37-11144-01 & 37-12890-01

Memorial Hospital, York, PA & Kingston, PA  
have been approved by an Agreement State; a copy of the Agreement State license, the  
procedures, and a description of the sources are attached, and the consultant's report will  
contain the information on

\_\_\_\_\_ the attached "Certificate of Instrument Calibration."

\_\_\_\_\_ the consultant's reporting form as attached.

\_\_\_\_\_ are described in the attachment, and the consultant's report will contain the information on

\_\_\_\_\_ the attached "Certificate of Instrument Calibration."

\_\_\_\_\_ the consultant's reporting form as attached.

Alternates: Nuclear Pharmacy/Syncor, Phila., PA  
Radiation Management Inc., Phila., PA

APPENDIX J  
WASTE DISPOSAL

**Note:** In view of the recent problems with shallow-land burial sites used by commercial waste disposal firms, NRC is encouraging its licensees to reduce the volume of wastes sent to these facilities. Important steps in volume reduction are to segregate radioactive from nonradioactive waste, to hold short-lived radioactive waste for decay in storage, and to release certain materials in the sanitary sewer in accordance with § 20.303 of 10 CFR Part 20.

1. Liquid waste will be disposed of (check as appropriate)

☐ In the sanitary sewer system in accordance with § 20.303 of 10 CFR Part 20.

☐ By commercial waste disposal service (see also Item 4 below).

☒ Other (specify): Returned to radio-pharmacy

2. Mo-99/Tc-99m generators will be (check as appropriate)

☐ Returned to the manufacturer for disposal.

☒ Held for decay\* until radiation levels, as measured in a low background area with a low-level survey meter and with all shielding removed, have reached background levels. All radiation labels will be removed or obliterated, and the generators will be disposed of as normal trash.\*\*

Then returned to manufacturer

\* Be sure that waste storage areas were described in Item 11 and that they are surveyed periodically (Item 17).

\*\* These generators may contain long-lived radioisotopic contaminants. Therefore, the generator columns will be segregated so that they may be monitored separately to ensure decay to background levels prior to disposal.

☐ Disposed of by commercial waste disposal service (see also Item 4 below).

☐ Other (specify): \_\_\_\_\_

3. Other solid waste will be (check as appropriate)

☒ Held for decay\* until radiation levels, as measured in a low background area with a low-level survey meter and with all shielding removed, have reached background levels. All radiation labels will be removed or obliterated, and the waste will be disposed of in normal trash.

☐ Disposed of by commercial waste disposal service (see also Item 4 below).

☒ Other (specify): Returned to radio-pharmacy

4. The commercial waste disposal service used will be

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(City, State)

NRC/Agreement State License No. \_\_\_\_\_