NRC FORM 374
(10-89)

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Amendment No. 09

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 39, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Henry Heywood Memorial Hospital	In accordance with application dated December 17, 1991,
2. 242 Green Street Gardner, Massachusetts 01440	3. License number 20-16804-01 is amended in its entirety to read as follows:
	4. Expiration date November 30, 1997
	5. Docket or Reference No. 030-11669

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Any byproduct material identified in 10 CFR 35.100	A. Any radiopharmaceutical identified in 10 CFR 35.100	A. As needed
B. Any byproduct material identified in 10 CFR 35.200	B. Any radiopharmaceutical identified in 10 CFR 35.200 except gas	B. As needed

9. Authorized use

A. Any uptake, dilution and excretion procedure approved in 10 CFR 35.100.
B. Any imaging and localization procedure approved in 10 CFR 35.200.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities at 242 Green Street, Gardner, Massachusetts.

11. The Radiation Safety Officer for this license is Walter Wagenknecht, M.D.

12. Licensed material listed in Item 6 above is authorized for use by, or under the supervision of, the following individuals for the materials and uses indicated:

Authorized Users	Material and Use
Joseph A. Guzetta, M.D.	35.100; 35.200
Stephen Peck, M.D.	35.100; 35.200
Walter Wagenknecht, M.D.	35.100; 35.200

13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material so that at no time is a quantity of radioactive material possessed in excess of a quantity which requires decommissioning funding in accordance with 10 CFR 30.35(d), 10 CFR 40.36(b), or 10 CFR 70.25(d).

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number: 20-16804-01
Docket or Reference number: 030-11669
Amendment No. 09

(Continued) CONDITIONS

14. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated December 17, 1991
B. Letter dated October 20, 1992

For the U.S. Nuclear Regulatory Commission

Date NOV 10 1992

By Original Signed By:
Thomas K. Thompson
Nuclear Materials Safety Branch
Region I
King of Prussia, Pennsylvania 19406

NOV 10 1992

License No. 20-16804-01
Docket No. 030-11669
Control No. 115903

Henry Heywood Memorial Hospital
ATTN: Daniel P. Moen
Chief Executive Officer
242 Green Street
Gardner, Massachusetts 01440

Dear Mr. Moen:

Please find enclosed the renewal of your NRC Material License.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the Region I Material Licensing Section, (215) 337-5093, so that we can provide appropriate corrections and answers.

Please be advised that you must conduct your program involving licensed radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, please note the items in the enclosed, "Requirements for Materials Licensees."

Please note that your license has been written in a format compatible with the revision of 10 CFR 35, "Medical Use of Byproduct Material" (enclosed), effective April 1, 1987. Your licensed material activities must be conducted in accordance with the revised Part 35 regulations.

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, the NRC expects licensees to pay meticulous attention to detail and to achieve the high standard of compliance which the NRC expects of its licensees.

You will be periodically inspected by NRC. A fee may be charged for inspections in accordance with 10 CFR Part 170. Failure to conduct your program safely and in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in prompt and vigorous enforcement action against you. This could include issuance of a notice of

violation, or in case of serious violations, an imposition of a civil penalty or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

We wish you success in operating a safe and effective licensed program.

Sincerely,

Original Signed By:
Thomas K. Thompson

Thomas K. Thompson
Medical Licensing Section
Division of Radiation Safety
and Safeguards

Enclosures:
1. Amendment No. 09
2. Requirements for Materials Licensees
3. Requirements for Medical Licensees
4. NRC Forms 3 and 313
5. 10 CFR Parts 2, 19, 20, 30, 35, and 170
6. Regulatory Guides 10.8
7. Notice for Medical Radiation Safety Officers

DRSS:RI	DRSS:RI
Bhalla/gcb	Thompson
11/9/92	11/9/92

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Henry Heywood Memorial Hospital

M519
L-6

License No. 20-16804-01
Docket No. 030-11669
Control No. 1159 3

Thomas K. Thompson
Nuclear Materials Safety Branch
Division of Radiation Safety and Safeguards
Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA. 19406-1415

10-20-92

Dear Mr. Thompson,

This is in reference to your letter (enclosed) dated October 2, 1992 requesting additional information on Henry Heywood Memorial Hospital's license renewal application dated December 17, 1991.

The information you have requested is as follows:

1. Henry Heywood Memorial Hospital does follow Appendix M.1 procedures in Regulatory Guide 10.8, Revision 2 for unit doses. 10 CFR 35.53(c) requires, in addition to the data indicated in Appendix M.1, that you (HHMH) document the expiration date.

Please be advised that Henry Heywood Memorial Hospital does include and documents the expiration date for all unit dose records.

2. Henry Heywood Memorial Hospital does follow Appendix M.2 procedures in Regulatory Guide 10.8, Revision 2 for multi-dose records. 10 CFR 35.53(c) requires, in addition to the data indicated in Appendix M.2, that you (HHMH) document the lot number and expiration date.

Please be advised that Henry Heywood Memorial Hospital does include and documents the lot number and expiration date for all multi-dose records.

242 Green Street • Gardner, Massachusetts 01440 • (508) 632-3420
FAX (508) 630-1426

115903

OCT 26 1992

OFFICIAL RECORD COPY ML 19

Thank you for your attention to our renewal application.

Sincerely,

Daniel P. Moen

Daniel Moen
President/CEC

10/22/92
Date

cc/RSC
N.Gaeta, Physicist
W.Wagenknecht, RSO
M.Croteau, NM Technologist
G.Wheeler, Manager

Enclosure, NRC Letter 10/02/92

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

OCT 0 2 1992

License No. 20-16804-01
Docket No. 030-11669
Control No. 115903

Henry Heywood Memorial Hospital
ATTN: Daniel P. Moen
Chief Executive Officer
242 Green Street
Gardner, Massachusetts 01440

Dear Mr. Moen:

This is in reference to your application dated December 17, 1991 to renew License No. 20-16804-01. In order to continue our review, we need the following additional information:

You have indicated that you will follow Appendix M.1 procedures in Regulatory Guide 10.8, Revision 2 for unit dose records. 10 CFR 35.53(c) requires, in addition to the data indicated in Appendix M.1, that you document the expiration date. Please confirm that your unit dose record will include the expiration date.

You have indicated that you will follow Appendix M.2 procedures in Regulatory Guide 10.8, Revision 2 for multi-dose records. 10 CFR 35.53(c) requires, in addition to the data indicated in Appendix M.2, that you document the lot number and expiration date. Please confirm that your multi-dose record will include the lot number and expiration date.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I office and refer to Mail Control No. 115903. The reviewer for this licensing action is Neelam Bhalla. If you have any technical questions regarding this deficiency letter please call the reviewer at (215) 337-5188.

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

Sincerely,

Thomas K. Thompson

Thomas K. Thompson
Nuclear Materials Safety Branch
Division of Radiation Safety
and Safeguards

Enclosure: 10 CFR Part 35

OCT 0 2 1992

License No. 20-16804-01
Docket No. 030-11669
Control No. 115903

Henry Heywood Memorial Hospital
ATTN: Daniel P. Moen
Chief Executive Officer
242 Green Street
Gardner, Massachusetts 01440

Dear Mr. Moen:

This is in reference to your application dated December 17, 1991 to renew License No. 20-16804-01. In order to continue our review, we need the following additional information:

You have indicated that you will follow Appendix M.1 procedures in Regulatory Guide 10.8, Revision 2 for unit dose records. 10 CFR 35.53(c) requires, in addition to the data indicated in Appendix M.1, that you document the expiration date. Please confirm that your unit dose record will include the expiration date.

You have indicated that you will follow Appendix M.2 procedures in Regulatory Guide 10.8, Revision 2 for multi-dose records. 10 CFR 35.53(c) requires, in addition to the data indicated in Appendix M.2, that you document the lot number and expiration date. Please confirm that your multi-dose record will include the lot number and expiration date.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I office and refer to Mail Control No. 115903. The reviewer for this licensing action is Neelam Bhalla. If you have any technical questions regarding this deficiency letter please call the reviewer at (215) 337-5188.

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ML 10

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

Sincerely,

Original Signed By:
Thomas K. Thompson

Thomas K. Thompson
Nuclear Materials Safety Branch
Division of Radiation Safety
and Safeguards

Enclosure: 10 CFR Part 35

DRSS:RI
Bhalla/gc
9/30/92

OFFICIAL RECORD COPY - G:\WPS\DLTR\D391 - 09/25/92

JAN 16 1992

Docket No. 030-11669

License No. 20-16804-01

Control No. 115903

Henry Heywood Memorial Hospital
ATTN: Riley M. Green, Jr., CEO
242 Green Street
Cardner, Massachusetts 01440

Dear Mr. Green:

SUBJECT: LICENSE RENEWAL APPLICATION

This is to acknowledge receipt of your application for renewal of material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified above.

Sincerely,

Original Signed By:
for Cheryl K. Buraker

Sheryl Villar, Chief
Licensing Assistant Section
Division of Radiation Safety
and Safeguards

RJL 1/10/92 CKB 1/16/92

OFFICIAL RECORD COPY HENRY HEYWOOD MEMORIAL - 0001.0.0
01/06/92

ML 10

Henry Heywood Memorial Hospital

030-11669

X

U.S. Nuclear Regulatory Commission
Region 1
Material Licensing Branch
Division Of Fuel Cycle and Material Safety
475 Allendale Road
King of Prussia, PA. 19406

Re: NRC License renewal #20-16804-01

12-17-91

Dear Sirs,

Enclosed is the NRC license renewal application for Henry Heywood Memorial Hospital. The $1,000 renewal fee is also enclosed. In accordance with renewal instructions, we have made a complete review of the current license and have referenced certain sections in the renewal application.

Please send us, at your earliest convenience, notification that you have received this application and that we may continue to operate under our existing license until a new one is issued.

Do not hesitate to call us if you have any questions regarding this application.

Sincerely,

Daniel P. Moen
President/CEO

12/17/91
Date

cc/RSC
RSO
N.Gaeta, CHP

License Fee Information
on Next Page

115903
12/24/91

OFFICIAL RECORD COPY ML 10

242 Green Street • Gardner, Massachusetts 01440 • (508) 632-3420
FAX (508) 630-1426

NRC Form 313
(9-89)
10 CFR 30, 32, 33,
34, 35, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIAL LICENSE

APPROVED BY OMB NO. 3150-0120
EXPIRES 8/30/93

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 3.25 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

030-11669

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS. IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION B
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCLEAR MATERIALS SAFETY SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

X

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
NUCLEAR MATERIALS SAFETY SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THIS U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [X] C. RENEWAL OF LICENSE NUMBER 20-16804-01

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)

Henry Heywood Memorial Hospital
242 Green Street
Gardner, MA 01440

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED:

(Same as above)

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION | TELEPHONE NUMBER

Gary N. Wheeler, R.T.(R), Neil Gaeta CHP | (508)(632-3420) (617)(448-7081)

SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)
FEE CATEGORY 7 C | AMOUNT ENCLOSED $ 1,000.00

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001, ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFUL FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

SIGNATURE - CERTIFYING OFFICER	TYPED/PRINTED NAME	TITLE	DATE
Daniel P. Moen	Daniel P. Moen	President/CEO	12/11/91

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS
Ren	Jan 31	7C	

AMOUNT RECEIVED	CHECK NUMBER
$1,000	008089

APPROVED BY	DATE
Rita Jacques	1/9/92

NRC FORM 313 (9-89)

HENRY HEYWOOD MEMORIAL HOSPITAL

ITEM 1 - LICENSE INFORMATION

Renewal of License Numbwer: 20-16804-01

ITEM 2 - APPLICANT'S NAME AND MAILING ADDRESS

Henry Heywood Memorial Hospital
242 Green Street
Gardner, Massachusetts 01440

ITEM 3 - LOCATION'S OF USE

Same as above

ITEM 4 - PERSON TO BE CONTACTED ABOUT APPLICATION

Gary N. Wheeler, R.T. 508-632-3420
Neil Gaeta, CHP 617-448-7081

ITEM 5 - RADIOACTIVE MATERIAL AND ITEM 6 - PURPOSE

Byproduct Material	Amount	Purpose
5.a Material in 35.100	As needed	6.a Medical Use
5.b Material in 35.200	As needed	6.b Medical Use

ITEM 7.1 - AUTHORIZED USERS FOR MEDICAL USE

Joseph A. Guzzetta, M.D.	All uses	20-16804-01
Stephen Peck, M.D.	All uses	20-16804-01
Walter Wagenknecht, M.D.	All uses	20-16804-01

ITEM 7.3 - RADIATION SAFETY OFFICER

Walter Wagenknecht, M.D.

12/17/91

ITEM 8 - TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

8.1 - TRAINING PROGRAM

We will establish and implement the model training program that was published in Appendix A to Regulatory Guide 10.8, Revision 2, that identifies the groups of workers who will receive training and the method and frequency of training, (below).

Nuclear Medicine Staff.....yearly lectures
Housekeeping Staff.....yearly lectures
Security/Maintenance.....yearly lectures
Other Staff.....yearly lectures

8.2 OTHER TRAINING PROGRAMS

N/A

ITEM 9 - FACILITIES AND EQUIPMENT

9.1 ANNOTATED DRAWING

Attached is the drawing of the Hot Lab and Scan Room of the Nuclear Medicine Department which shows the location of equipment and supply/exhaust air flows.

9.2 SURVEY INSTRUMENT CALIBRATION

We will establish and implement the model procedure for calibrating survey instruments that was published in Appendix B to Regulartory Guide 10.8, Revision 2.

The list (see Appendix C) of survey meters shall be calibrated by Neil A. Gaeta, CHP on an annual basis as per his license number: 20-20743-01, (expiration date 6/30/95).

9.3 DOSE CALIBRATOR CALIBRATION

We will establish and implement the model procedure for calibrating our dose calibrator that was published in Appendix C to Regulatory Guide 10.8, Revision 2.

12/17/91

9.4 PERSONNEL MONITORING PROGRAM

We will establish and implement the model personnel external exposure monitoring program published in Appendix D to Regulatory Guide 10.8, Revision 2. NOTE: Appendix D, item #3 revised by eliminating monthly to quarterly.

9.5 IMAGING EQUIPMENT

See Appendix C

9.6 OTHER EQUIPMENT AND FACILITIES

See Appendix C

ITEM 10 - RADIATION SAFETY PROGRAM

10.1 RADIATION SAFETY COMMITTEE/RADIATION SAFETY OFFICER

We will issue the model Radiation Safety Committee Charter and Radiation Safety Officer Delegation of Authority that was published in Appendix F to Regulatory Guide 10.8, Revision 2.

10.2 ALARA PROGRAM

We will establish and implement the model ALARA program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.

10.3 LEAK TEST

We will establish and implement the model procedure for leak-testing sealed sources that was published in Appendix H to Regulatory Guide 10.8, Revision 2.

10.4 SAFE USE OF RADIOPHARMACEUTICLAS

We will establish and implement the model safety rules published in Appendix I to Regulatory Guide 10.8, Revision 2.

10.5 SPILL PROCEDURES

We will establish and implement the model spill procedures published in Appendixx J to Regulatory Guide 10.8, Revision 2.

12/17/91

10.6 ORDERING AND RECEIVING

We will establish and implement the model guidance for ordering and receiving radioactive material that was published in Appendix K to Regulatory Guide 10.8, Revision 2.

10.7 OPENING PACKAGES

We will establish and implement the model procedure for opening packages that was published in Appendix L to Regulatory Guide 10.8, Revision 2.

10.8 UNIT DOSE RECORDS

We will establish and implement the model procedure for a unit dosage record system that was published in Appendix M.1 to Regulatory Guide 10.8, Revision 2.

10.9 MULTIDOSE VIAL RECORDS

We will establish and implement the model procedure for a multidose vial record system that was published in Appendix M.2 to Regulatory Guide 10.8.

10.10 MOLYBDENUM CONCENTRATION RECORDS

We will establish and implement the model procedure for measuring and recording molybdenum concentration that was published in Appendix M.3 to Regulatory Guide 10.8, Revision 2.

10.11 IMPLANT SOUCE RECORDS

N/A

10.12 AREA SURVEY PROCEDURES

We will establish and implement the model procedure for area surveys that was published in Appendix N to Regulatory Guide 10.8, Revision 2.

Swipe trigger level - 2000dpm/100cm2 }Notify
External Exposure Rate - .2mR/hr (unrestricted area)}
Trigger level - 2.0mR/hr (restricted area) } RSO

10.13 AIR CONCENTRATION CONTROL

N/A--133 Xe not in use

12/17/91

ITEM 11 - WASTE MANAGEMENT

11.1 WASTE DISPOSAL

We will establish and implement the general guidance and model procedures for waste disposal that were published in Appendix R to Regulatory Guide 10.8, Revision 2.

11.2 OTHER WASTE DISPOSAL

N/A

nrcapp92

12/17/91

11/13/91

APPENDIX A

Model Training Program
(See §§ 19.12 and 35.21)

The following guidance may be used to develop a training program. If you use the frequency and subject listings to develop your training program, you may say on your application, "We will establish and implement the model training program that was published in Appendix A to Regulatory Guide 10.8, Revision 2, and have appended a table ATT 8.1 that identifies the groups of workers who will receive training and the method and frequency of training." You may use lectures, video-taped presentations, or demonstrations, for example, as methods of training.

If you prefer, you may develop your own training program for review. If you do so, you should consider for inclusion all the features in the model program and carefully review the requirements of § 19.12. Say on your application, "We have developed a training program for your review that is appended as ATT 8.1." Be sure to include the table that identifies groups of workers, the method of their training, and the frequency of training.

It may not be assumed that safety instruction has been adequately covered by prior occupational training, board certification, etc. Site-specific training should be provided for all workers. Ancillary personnel (e.g., nursing, clerical, housekeeping, security) whose duties may require them to work in the vicinity of radioactive material (whether escorted or not) need to be informed about radiation hazards and appropriate precautions. All training should be tailored to meet the needs of the individuals in attendance. A training program that provides necessary instruction should be written and implemented.

MODEL PROGRAM

Personnel will be instructed:

1. Before assuming duties with, or in the vicinity of, radioactive materials.
2. During annual refresher training.
3. Whenever there is a significant change in duties, regulations, or the terms of the license.

Instruction for individuals in attendance will include the following subjects:

1. Applicable regulations and license conditions.
2. Areas where radioactive material is used or stored.
3. Potential hazards associated with radioactive material in each area where the employees will work.
4. Appropriate radiation safety procedures.
5. Licensee's in-house work rules.

6. Each individual's obligation to report unsafe conditions to the Radiation Safety Officer.

7. Appropriate response to emergencies or unsafe conditions.

8. Worker's right to be informed of occupational radiation exposure and bioassay results.

9. Locations where the licensee has posted or made available notices, copies of pertinent regulations, and copies of pertinent licenses and license conditions (including applications and applicable correspondence), as required by 10 CFR Part 19.

10. Question and answer period.

12/17/91

APPENDIX C

INSTRUMENTATION

1. Survey meters

   a. Manufacturer's name: Minimonitor II

   Manufacturer's model number: 05-571

   Number of instruments available: 1

   Minimum range: 0 mR/hr to 10 mR/hr

   Maximum range: 0 mR/hr to 1000 mR/hr

   b. Manufacturer's name: Victoreen + Pancake Probe (489-110B)

   Manufacturer's model number: Model 290

   Number of instruments available: 1

   Minimum range: 0 mR/hr to .1 mR/hr

   Maximum range: 0 mR/hr to 100 mR/hr

2. Dose calibrator

   Manufacturer's name: Squibb CRC - 17

   Manufacturer's model number: CRC - 17

   Number of instruments available: 1

3. Instruments used for diagnostic procedures

Type of Instrument	Manufacturer's Name	Model No.
Gamma Camera	Siemens	None
Microdot Imager	Siemens	CE - 0594
ADAC COMPUTER	ADAC	DDS - 3300

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

Auto logic (Well Counter)	Abbott Labs	7407

11/18/91

APPENDIX F

Model Radiation Safety Committee Charter and Radiation Safety Officer Delegation of Authority (See §§ 35.21, 35.22, and 35.23.)

You may use the following text as it appears here, saying on your application, "We will issue the model Radiation Safety Committee Charter and Radiation Safety Officer Delegation of Authority that was published in Appendix F to Regulatory Guide 10.8, Revision 2."

If you prefer, you may develop your own statement of authority, duties, administrative procedures, and delegation of authority. If you do so, you should consider for inclusion all the features in the model text and carefully review the requirements of §§ 35.22. Say on your application, "We will issue the Radiation Safety Committee Charter and Radiation Safety Officer Delegation of Authority that are appended as ATT 10.1," and append your charter and delegation.

MODEL CHARTER

Charge. The Committee shall:

1. Ensure that licensed material will be used safely. This includes review as necessary of training programs, equipment, facility, supplies, and procedures;

2. Ensure that licensed material is used in compliance with NRC regulations and the institutional license;

3. Ensure that the use of licensed material is consistent with the ALARA philosophy and program;

4. Establish a table of investigational levels for individual occupational radiation exposures; and

5. Identify program problems and solutions.

Responsibilities. The Committee shall:

1. Be familiar with all pertinent NRC regulations, the license application, the license, and amendments;

2. Review the training and experience of the proposed authorized users, the Radiation Safety Officer (RSO), and the teletherapy physicist to determine that their qualifications are sufficient to enable the individuals to perform their duties safely and are in accordance with the regulations and the license;

3. Review on the basis of safety and approve or deny, consistent with the limitations of the regulations, the license, and the ALARA philosophy, all requests for authorization to use radioactive material within the institution;

4. Prescribe special conditions that will be required during a proposed method of use of radioactive material such as requirements for bioassays, physical examinations of users, and special monitoring procedures;

5. Review quarterly the RSO's summary report of the occupational radiation exposure records of all personnel, giving attention to individuals or groups of workers whose occupational exposure appears excessive;

6. Establish a program to ensure that all persons whose duties may require them to work in or frequent areas where radioactive materials are used (e.g., nursing, security, housekeeping, physical plant) are appropriately instructed as required in § 19.12 of 10 CFR Part 19;

7. Review at least annually the RSO's summary report of the entire radiation safety program to determine that all activities are being conducted safely, in accordance with NRC regulations and the conditions of the license, and consistent with the ALARA program and philosophy. The review must include an examination of records, reports from the RSO, results of NRC inspections, written safety procedures, and the adequacy of the management control system;

8. Recommend remedial action to correct any deficiencies identified in the radiation safety program;

9. Maintain written minutes of all Committee meetings, including members in attendance and members absent, discussions, actions, recommendations, decisions, and numerical results of all votes taken; and

10. Ensure that the byproduct material license is amended if required prior to any changes in facilities, equipment, policies, procedures, and personnel.

Administrative Information

1. The Committee shall meet as often as necessary to conduct its business but not less than once in each calendar quarter.

2. Membership must include one authorized user for each type of use authorized by the license, the RSO, a representative of the nursing service, and a representative of management who is neither an authorized user nor an RSO. Management may appoint alternate members to participate in meetings in the case of absence of principal members and should consider appointing as adjunct members representatives from security, physical plant, housekeeping, and other departments. (Adjunct members should abstain from balloting on radiation safety technical questions such as Items 2 through 5 in the "Responsibilities" section above.)

3. To establish a quorum, one-half of the Committee's membership, including the RSO and the management representative, must be present.

4. To the extent that they do not interfere with the mission of the Committee, management may assign other responsibilities such as x-ray radiation safety, quality assurance oversight, and research project review and approval.

11/13/91

MODEL DELEGATION OF AUTHORITY

Memo To: All Employees
From: Chief Executive Officer
Subject: Delegation of Authority

Walter C. Wagenknecht, MD has been appointed Radiation Safety Officer and is responsible for ensuring the safe use of radiation. The Radiation Safety Officer is responsible for managing the radiation safety program; identifying radiation safety problems; initiating, recommending, or providing corrective actions; verifying implementation of corrective actions; and ensuring compliance with regulations. The Radiation Safety Officer is hereby delegated the authority necessary to meet those responsibilities.

The Radiation Safety Officer is also responsible for assisting the Radiation Safety Committee in the performance of its duties and serving as its secretary.

11/18/91

APPENDIX G

Model Program for Maintaining Occupational Radiation Exposure
at Medical Institutions ALARA
(See § 35.20.)

You may use the text as it appears here, saying on your application, "We will establish and implement the model ALARA program that was published in Appendix G to Regulatory Guide 10.8, Revision 2."

If you prefer, you may develop your own ALARA program for NRC review. If you do so, you should consider for inclusion all the features in the model and carefully review the requirements of § 35.20. Say on your application, "We have developed an ALARA program for your review that is appended as ATT 10.2," and append your program.

ALARA PROGRAM

Henry Heywood Memorial Hospital
(Licensee's Name)

11/18/91
(Date)

1. Management Commitment

   a. We, the management of this (medical facility, hospital, etc.), are committed to the program described herein for keeping individual and collective doses as low as is reasonably achievable (ALARA). In accord with this commitment, we hereby describe an administrative organization for radiation safety and will develop the necessary written policy, procedures, and instructions to foster the ALARA concept within our institution. The organization will include a Radiation Safety Committee (RSC) and a Radiation Safety Officer (RSO).

   b. We will perform a formal annual review of the radiation safety program, including ALARA considerations. This will include reviews of operating procedures and past dose records, inspections, etc., and consultations with the radiation safety staff or outside consultants.

   c. Modifications to operating and maintenance procedures and to equipment and facilities will be made if they will reduce exposures unless the cost, in our judgment, is considered to be unjustified. We will be able to demonstrate, if necessary, that improvements have been sought, that modifications have been considered, and that they have been implemented when reasonable. If modifications have been recommended but not implemented, we will be prepared to describe the reasons for not implementing them.

   d. In addition to maintaining doses to individuals as far below the limits as is reasonably achievable, the sum of the doses received by all exposed individuals will also be maintained at the lowest practicable

level. It would not be desirable, for example, to hold the highest doses to individuals to some fraction of the applicable limit if this involved exposing additional people and significantly increasing the sum of radiation doses received by all involved individuals.

2. Radiation Safety Committee

a. Review of Proposed Users and Uses

(1) The RSC will thoroughly review the qualifications of each applicant with respect to the types and quantities of materials and methods of use for which application has been made to ensure that the applicant will be able to take appropriate measures to maintain exposure ALARA.

(2) When considering a new use of byproduct material, the RSC will review the efforts of the applicant to maintain exposure ALARA.

(3) The RSC will ensure that the users justify their procedures and that individual and collective doses will be ALARA.

b. Delegation of Authority

(The judicious delegation of RSC authority is essential to the enforcement of an ALARA program.)

(1) The RSC will delegate authority to the RSO for enforcement of the ALARA concept.

(2) The RSC will support the RSO when it is necessary for the RSO to assert authority. If the RSC has overruled the RSO, it will record the basis for its action in the minutes of the quarterly meeting.

c. Review of ALARA Program

(1) The RSC will encourage all users to review current procedures and develop new procedures as appropriate to implement the ALARA concept.

(2) The RSC will perform a quarterly review of occupational radiation exposure with particular attention to instances in which the investigational levels in Table 1 are exceeded. The principal purpose of this review is to assess trends in occupational exposure as an index of the ALARA program quality and to decide if action is warranted when investigational levels are exceeded (see Section 6 below for a discussion of investigational levels).*

*The NRC has emphasized that the investigational levels in this program are not new dose limits but, as noted in ICRP Report 26, "Recommendations of the International Commission on Radiological Protection," serve as check points above which the results are considered sufficiently important to justify investigations.

4/13/91

Table 1

Investigational Levels

	Investigational Levels (mrems per calendar quarter)	
	Level I	Level II
1. Whole body; head and trunk; active blood-forming organs; lens of eyes; or gonads	125	375
2. Hands and forearms; feet and ankles	1875	5625
3. Skin of whole body*	750	2250

*Not normally applicable to medical use operations except those using significant quantities of beta-emitting isotopes.

(3) The RSC will evaluate our institution's overall efforts for maintaining doses ALARA on an annual basis. This review will include the efforts of the RSO, authorized users, and workers as well as those of management.

3. Radiation Safety Officer

a. Annual and Quarterly Review

(1) Annual review of the radiation safety program. The RSO will perform an annual review of the radiation safety program for adherence to ALARA concepts. Reviews of specific methods of use may be conducted on a more frequent basis.

(2) Quarterly review of occupational exposures. The RSO will review at least quarterly the external radiation doses of authorized users and workers to determine that their doses are ALARA in accordance with the provisions of Section 6 of this program and will prepare a summary report for the RSC.

(3) Quarterly review of records of radiation surveys. The RSO will review radiation surveys in unrestricted and restricted areas to determine that dose rates and amounts of contamination were at ALARA levels during the previous quarter and will prepare a summary report for the RSC.

b. Education Responsibilities for ALARA Program

(1) The RSO will schedule briefings and educational sessions to inform workers of ALARA program efforts.

(2) The RSO will ensure that authorized users, workers, and ancillary personnel who may be exposed to radiation will be instructed in the ALARA philosophy and informed that management, the RSC, and the RSO are committed to implementing the ALARA concept.

c. Cooperative Efforts for Development of ALARA Procedures

Radiation workers will be given opportunities to participate in formulating the procedures that they will be required to follow.

(1) The RSO will be in close contact with all users and workers in order to develop ALARA procedures for working with radioactive materials.

(2) The RSO will establish procedures for receiving and evaluating the suggestions of individual workers for improving health physics practices and will encourage the use of those procedures.

d. Reviewing Instances of Deviation from Good ALARA Practices

The RSO will investigate all known instances of deviation from good ALARA practices and, if possible, will determine the causes. When the cause is known, the RSO will implement changes in the program to maintain doses ALARA.

4. Authorized Users

a. New Methods of Use Involving Potential Radiation Doses

(1) The authorized user will consult with the RSO and/or RSC during the planning stage before using radioactive materials for new uses.

(2) The authorized user will review each planned use of radioactive materials to ensure that doses will be kept ALARA. Trial runs may be helpful.

b. Authorized User's Responsibility to Supervised Individuals

(1) The authorized user will explain the ALARA concept and the need to maintain exposures ALARA to all supervised individuals.

(2) The authorized user will ensure that supervised individuals who are subject to occupational radiation exposure are trained and educated in good health physics practices and in maintaining exposures ALARA.

5. Individuals Who Receive Occupational Radiation Doses

a. Workers will be instructed in the ALARA concept and its relationship to work procedures and work conditions.

b. Workers will be instructed in recourses available if they feel that ALARA is not being promoted on the job.

11/13/91

6. Establishment of Investigational Levels in Order to Monitor Individual Occupational External Radiation Doses

This institution hereby establishes investigational levels for occupational external radiation doses which, when exceeded, will initiate review or investigation by the RSC and/or the RSO. The investigational levels that we have adopted are listed in Table 1. These levels apply to the exposure of individual workers.

The RSO will review and record on Form NRC-5, "Current Occupational External Radiation Exposures," or an equivalent form (e.g., dosimeter processor's report) results of personnel monitoring not less than once in any calendar quarter as required by § 20.401 of 10 CFR Part 20. The following actions will be taken at the investigational levels as stated in Table 1:

a. Personnel dose less than Investigational Level I.

Except when deemed appropriate by the RSO, no further action will be taken in those cases where an individual's dose is less than Table 1 values for the Investigational Level I.

b. Personnel dose equal to or greater than Investigational Level I but less than Investigational Level II.

The RSO will review the dose of each individual whose quarterly dose equals or exceeds Investigational Level I and will report the results of the reviews at the first RSC meeting following the quarter when the dose was recorded. If the dose does not equal or exceed Investigational Level II, no action related specifically to the exposure is required unless deemed appropriate by the Committee. The Committee will, however, review each such dose in comparison with those of others performing similar tasks as an index of ALARA program quality and will record the review in the Committee minutes.

c. Personnel dose equal to or greater than Investigational Level II.

The RSO will investigate in a timely manner the causes of all personnel doses equaling or exceeding Investigational Level II and, if warranted, will take action. A report of the investigation, any actions taken, and a copy of the individual's Form NRC-5 or its equivalent will be presented to the RSC at its first meeting following completion of the investigation. The details of these reports will be included in the RSC minutes.

d. Reestablishment of investigational levels to levels above those listed in Table 1.

In cases where a worker's or a group of workers' doses need to exceed an investigational level, a new, higher investigational level may be established for that individual or group on the basis that it is consistent with good ALARA practices. Justification for new investigational levels will be documented.

The RSC will review the justification for and must approve or disapprove all revisions of investigational levels.

7. Signature of Certifying Official*

I hereby certify that this institution has implemented the ALARA Program set forth above.

Signature

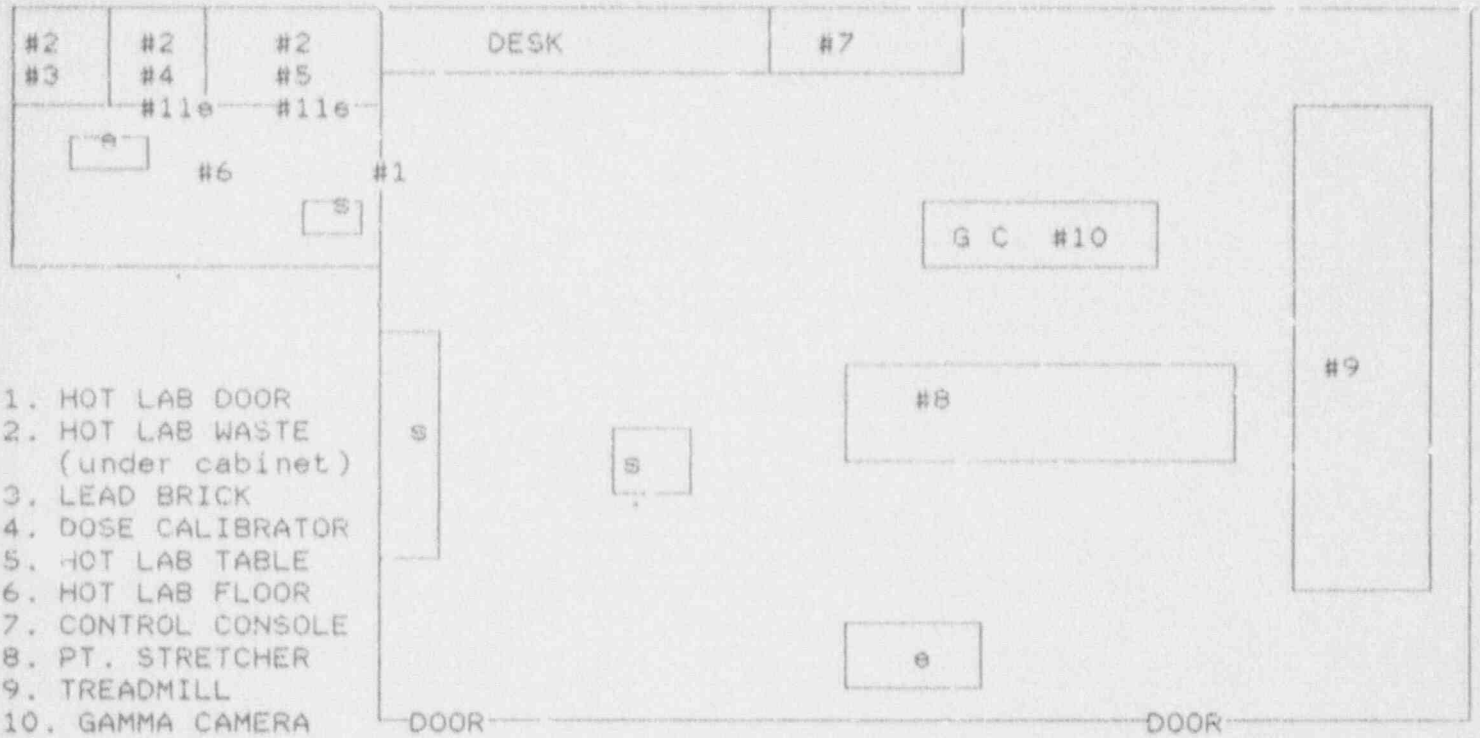
Daniel P. Moen
Name (print or type)

President/CEO
Title

*The person who is authorized to make commitments for the administration of the institution (e.g., hospital administrator).

9.1

NUCLEAR MEDICINE HOT LAB
AND SCANNING ROOM
SURVEY AREAS



1. HOT LAB DOOR
2. HOT LAB WASTE (under cabinet)
3. LEAD BRICK
4. DOSE CALIBRATOR
5. HOT LAB TABLE
6. HOT LAB FLOOR
7. CONTROL CONSOLE
8. PT. STRETCHER
9. TREADMILL
10. GAMMA CAMERA
11e. EHAUST HOOD WITH L SHAPED BRICK

e= exhaust
s=supply

HOTLAB.FRM
REVISED
12-16-91

115903

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 02120
STATUS CODE: 2
FEE CATEGORY: 7C
EXP. DATE: 19920131
FEE COMMENTS: ----------
DECOM FIN ASSUR REQD: N

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: HENRY HEYWOOD MEMORIAL HOSPITAL
RECEIVED DATE: 911224
DOCKET NO: 3011669
CONTROL NO.: 115903
LICENSE NO.: 20-16804-01
ACTION TYPE: RENEWAL

2. FEE ATTACHED
AMOUNT: $1000.00
CHECK NO.: 208089

3. COMMENTS

SIGNED Rebecca J. Brown
DATE 12/31/91

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED /✓/)

1. FEE CATEGORY AND AMOUNT: 7C $1000

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT ----------
RENEWAL ✓
LICENSE ----------

3. OTHER ----------

SIGNED Rita Jacques
DATE 1/9/92