

APPLICATION FOR MATERIAL LICENSE

37-17643-01

030-13110

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.

FEDERAL AGENCIES FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL 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 MATERIAL SECTION B
631 PARK AVENUE
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
MATERIAL RADIATION PROTECTION 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

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
MATERIAL RADIATION PROTECTION SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE 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 _____
☒ C. RENEWAL OF LICENSE NUMBER 37-17643-01

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

Delaware Valley Medical Center
200 Oxford Valley Road
Langhorne, Pennsylvania 19047

code 23

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

Delaware Valley Medical Center
200 Oxford Valley Road
Langhorne, Pennsylvania 19047

8905030346 880526
REG1 LIC30
37-17643-01 PNU

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION:

Angelo J. Zappala, D.O.

TELEPHONE NUMBER

(215) 750-3300

SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 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.B. AMOUNT ENCLOSED \$700.00

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 WILLFULLY 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

Rocco Masticolo

Rocco Masticolo

Chief Executive Officer

12/14/87

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS

<\$250K
\$250K-\$500K
\$500K-\$750K
\$750K-\$1M

b. NUMBER OF EMPLOYEES (Total for entire facility excluding outside contractors)

c. NUMBER OF BEDS

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (dollar and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)

YES ☐ NO ☐

FOR NRC USE ONLY

TYPE OF FEE

FEE LOG

FEE CATEGORY

COMMENTS

APPROVED BY

REN

Dec 17

7C

AMOUNT RECEIVED

CHECK NUMBER

\$700 (\$120 reserved)

3003262

DATE

12/14/87

PRIVACY ACT STATEMENT ON THE REVERSE

"OFFICIAL RECORD COPY"

ML1B

108044

03 NOV 1987

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 313. 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, 32, 33, 34, 35 and 40 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 (a) provided to State health departments for their information and use; and (b) provided 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 an NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you.
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. A request that information be held from public inspection must be in accordance with the provisions of 10 CFR 2.790. Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned need to inspect the document.
5. **SYSTEM MANAGER(S) AND ADDRESS:** U.S. Nuclear Regulatory Commission
Director, Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Safeguards
Washington, D.C. 20555

ITEM 5- RADIOACTIVE MATERIAL and ITEM 6 - PURPOSE

<u>Byproduct Material</u>	<u>Amount</u>	<u>Purpose</u>
5.a Material in 35.100	As needed	6.a Medical use
5.b Material in 35.200	As needed	6.b Medical use

108044

03 NOV 1987

RADIATION SAFETY OFFICER and AUTHORIZED USER

Name

Proposed Use

Angelo J. Zappala, D.O.
Chairman, Department of Radiology

Items 5.a, and 5.b.

Previously authorized for medical use by NRC Byproducts Materials
License #37-17643-01 issued to Delaware Valley Medical Center
(Renewal under Request)

03 NOV 1987

AUTHORIZED USER

Name

Proposed Use

Richard M. Purse, D.O.

Items 5.a., and 5.b.

Previously authorized for medical use by NRC Byproduct Materials
License #37-17643-01 issued to Delaware Valley Medical Center
(Renewal under Request)

AUTHORIZED USER

Name

Proposed Use

Joseph D. Flynn, Jr., D.O.

Items 5.a., and 5.b.

Previously authorized for medical use by NRC Byproduct Materials
License #37-17643-01 issued to Delaware Valley Medical Center
(Renewal under Request)

AUTHORIZED USER

Name

Reese J. James, D.O.

Proposed Use

Items 5.a., and 5.b.

Certified by an organization listed in the appropriate section of
Subpart J of 10 CFR 35, Supplement A submitted.

**TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER**

Approved by OMB
3150-0041
Expires 6-30-89

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER Reese J. James, D.O.	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE PA, TX, MO
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3. CERTIFICATION

SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
American Osteopathic Board of Radiology	Diagnostic Radiology	April, 1987

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	TYPE AND LENGTH OF TRAINING	
		LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION			
b. RADIATION PROTECTION			
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY			
d. RADIATION BIOLOGY			
e. RADIOPHARMACEUTICAL CHEMISTRY			

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

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

AUTHORIZED USER

Name

Proposed Use

Gary Petruski, M.D.

Items 5.a., and 5.b.

Previously authorized for medical use by NKC Byproduct Materials
License #37-15400-01 issued to St Mary Hospital, Langhorne, Pennsylvania.

ITEM 8.1 PERSONNEL TRAINING PROGRAM

We have developed a training program for your review
that is appended as ATT 8.1

At the beginning of employment, annually thereafter, and at such times as duties, regulations or license terms change significantly, all individuals* working in or frequenting any portion of the Nuclear Medicine area shall receive instructions in pertinent radiological health protection practices. Training shall consist of informal lectures and the extent of their instructions shall be commensurate with potential radiological health hazards.

Areas of instructions to be covered shall include:

1. Rules, regulations and all terms of the license pertinent to radiation safety.
2. Areas where radioactive material is used or stored.
3. Location where the license, conditions thereof and all other pertinent regulations have been posted in accordance with 10 CFR Part 19.
4. Receipt and transfer of radioactive materials.
5. Appropriate radiation safety procedures and precautions to minimize radiation exposure.
6. Functions and purposes of protective devices employed.
7. Potential hazards associated with radioactive material in each area where the employees will work.
8. Licensee's in-house work rules.
9. Appropriate response to emergencies or unsafe conditions.
10. Employee responsibility in promptly reporting any unsafe conditions to the Radiation Safety Officer.
11. Employee right to be informed of their occupational radiation exposure and bioassay results.
12. Question and answer period.

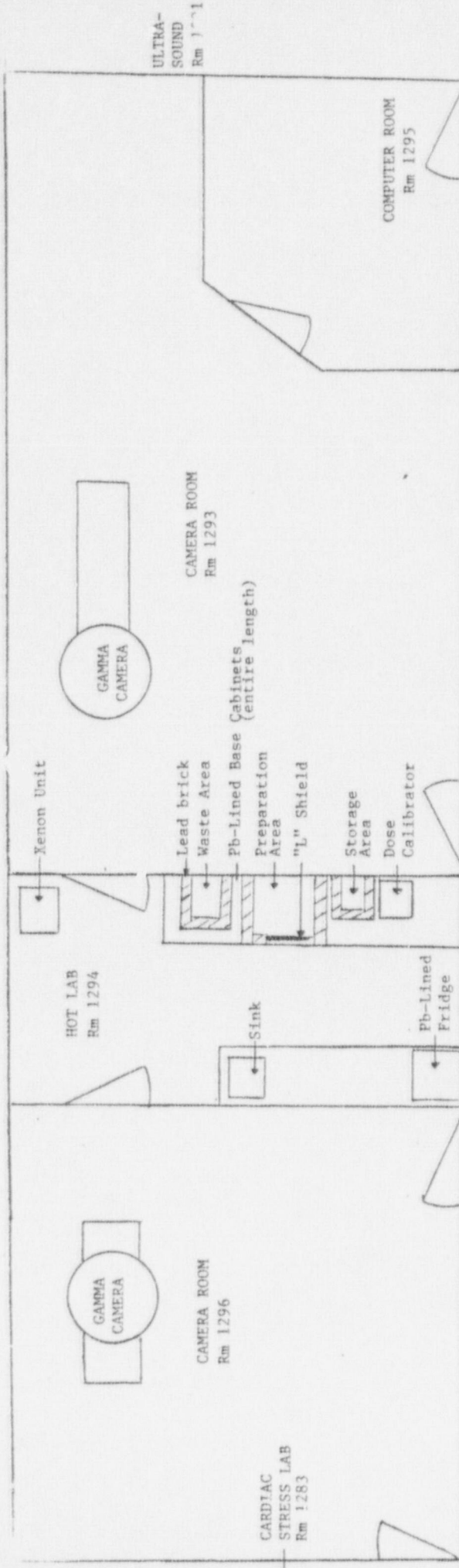
In addition, all female employees working directly within the Department of Nuclear Medicine shall be instructed during orientation or within the first week of employment as to their responsibility regarding pregnancy and employment.

*Technical staff (Radiology, CT, Ultrasound, Nuclear Medicine)
Security personnel
Housekeeping staff
Radiology Clerical personnel
Appropriate Nursing staff

The new employee will be briefed in the expected occupational level of exposure, potential associated hazards, and proper radiation control working habits. Regular in-service training education will follow on a regular monthly basis throughout the year.



HALLWAY



Scale 1" = 1'

ATT. 9.1

ANNOTATED DRAWING
NUCLEAR MEDICINE DEPARTMENT

DELAWARE VALLEY MEDICAL
CENTER
200 Oxford Valley Road
Langhorne, Pa. 19047

ITEM 9.2 PROCEDURE FOR CALIBRATING SURVEY INSTRUMENTS

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

ITEM 9.3 PROCEDURE FOR CALIBRATING DOSE CALIBRATOR

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.

ITEM 9.4 PERSONNEL MONITOR PROGRAM

We will establish and implement the model personnel external exposure monitoring program published in Appendix D to Regulatory Guide 10.8, Revision 2.

ITEM 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.

ITEM 10.2 RADIATION SAFETY PROGRAM

ALARA Program

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

ITEM 10.3 PROCEDURE FOR LEAK-TESTING SEALED SOURCES

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.

ITEM 10.4 RULES FOR SAFE USE OF RADIOPHARMACEUTICALS

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

ITEM 10.5 SPILL PROCEDURES

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

ITEM 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.

ITEM 10.7 PROCEDURE FOR 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.

ITEM 10.8 PROCEDURE FOR MAINTAINING RECORDS OF UNIT DOSAGE USE

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.

ITEM 10.9 PROCEDURE FOR MAINTAINING RECORDS OF MULTI-DOSE VIAL USE

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

ITEM 10.10 MOLYBDENUM CONCENTRATION RECORDS

All radiopharmaceuticals are presently obtained from an outside distributor. Should a generator be employed at any time during the term of the license, 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.

ITEM 10.11 PROCEDURE FOR AREA SURVEYS

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

ITEM 10.13.1 AIR CONCENTRATION CONTROL
WORKER DOSE FROM NOBLE GASES

We will collect spent noble gas in a shielded container and will establish and implement the model procedure for checking trap effluent that was published in Appendix O.3 to Regulatory Guide 10.8, Revision 2.

ITEM 10.13.2 AIR CONCENTRATION CONTROL
WORKER DOSE FROM AEROSOLS

We will collect spent aerosol in a shielded trap and, for reusable traps, monitor the trap effluent with an air contamination monitor that we will check regularly according to the manufacturer's instructions.

ITEM 10.13.3 AIR CONCENTRATION CONTROL
PUBLIC DOSE FROM AIRBORNE EFFLUENT

We will not directly vent spent aerosols and gases to the atmosphere and therefore no effluent estimation is necessary.

ITEM 10.13.4 SPILLED GAS CLEARANCE TIME

We will calculate spilled gas clearance times according to the procedure that was published in Appendix 0.4 to Regulatory Guide 10.8, Revision 2.

ITEM 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.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DEC 14 1987

Delaware Valley Medical Center
ATTN: Angelo J. Zappala, D.O.
200 Oxford Valley Road
Langhorne, PA 19047

REFUND OF APPLICATION FEE

1. BACKGROUND:

Check Received November 23, 1987
Application Dated October 16, 1987
Check Number 3003262
Check Amount \$700

2. REFUND:

Amount \$120

This refund is now being processed and will be sent as soon as possible.

3. REASON FOR REFUND:

Overpayment of renewal fee for application dated October 16, 1987 for License 37-17643-01 as specified in fee Category 7C (\$580) of \$170.31, 10 CFR 170.

15/
Glenda Jackson 12/1/87
License Fee Management Branch
Division of Accounting and Finance
Office of Administration and
Resources Management

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LMS

PROGRAM CODE: 02120
STATUS CODE: 2
FEE CATEGORY: 7C
EXP. DATE: 19871231
FEE COMMENTS:

LICENSE FEE TRANSMITTAL

A. REGION 1

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: DELAWARE VALLEY MEDICAL CTR.
RECEIVED DATE: 871103
DOCKET NO: 3013110
CONTROL NO.: 108044
LICENSE NO.: 37-17643-01
ACTION TYPE: RENEWAL

2. FEE ATTACHED

AMOUNT: \$700
CHECK NO.: 030-3304

3. COMMENTS

code 7.3

SIGNED
DATE

[Signature]
11/20/87

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED 1-13)

1. FEE CATEGORY AND AMOUNT: 7C \$580

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT _____
RENEWAL
LICENSE _____

3. OTHER _____

SIGNED
DATE

[Signature]
12/14/87