MATERIALS LICENSE

Amendment No. 19

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, 36, 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.

OFFICIAL RECORD COPY

Licensee	
1. Papastavros' Associates Medical Imaging	In accordance with the application dated June 6, 1996,
2. Professional Building IV, Suite 100 1701 Augustine Cut-off Wilmington, Delaware 19803	3. License Number 07-16529-01 is amended in its entirety to read as follows:
	4. Expiration Date August 31, 2001
	5. Docket or Reference No. 030-11379

6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	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 generators and gas	B. As needed
C. Iodine 131	C. As identified in 10 CFR 35.300	C. 300 millicuries
D. Strontium 89	D. As identified in 10 CFR 35.300	D. 100 millicuries

9. Authorized use

A. Any uptake, dilution and excretion procedure approved in 10 CFR 35.100.
B. Any imaging and localization procedures approved in 10 CFR 35.200.
C. and D. Any radiopharmaceutical therapy procedure approved in 10 CFR 35.300 for which the patient can be released under the provisions of 10 CFR 35.75.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities at Suite 100, Professional Building IV, 1701 Augustine Cut-off, Wilmington, Delaware; and the Medical Imaging Center, Polly Drummond Plaza, Polly Drummond Road and Kirkwood Highway, Newark, Delaware.

11. The Radiation Safety Officer for this license is Garth A. Koniver, 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
James A. Murphy, M.D.	35.100; 35.200

ML 10

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number: 07-16529-01

Docket or Reference Number: 030-11379

Amendment No. 19

Thomas W. Fiss, Jr., M.D.	35.100; 35.200; Iodine 131 for treatment of hyperthyroidism and cardiac dysfunction Strontium 89 for radiopharmaceutical procedures approved in 35.300
Garth A. Koniver, M.D.	35.100; 35.200; Iodine 131 for treatment of hyperthyroidism and cardiac dysfunction Strontium 89 for radiopharmaceutical procedures approved in 35.300
Stephen Lawless, M.D.	35.100; 35.200; Iodine 131 for treatment of hyperthyroidism and cardiac dysfunction
John D. McAllister, II, M.D.	35.100; 35.200; Iodine 131 for treatment of hyperthyroidism and cardiac dysfunction

13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(a), 40.36(b), and 70.25(d) for establishing financial assurance for decommissioning.

14. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

15. 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, except for minor changes in the medical use radiation safety procedures as provided in 10 CFR 35.31. The U.S. 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 June 6, 1996
B. Letter dated July 29, 1996

For the U.S. Nuclear Regulatory Commission

Date SEP - 6 1996

By Original Signed By:
Michelle Beardsley

Nuclear Materials Safety Branch
Region I
King of Prussia, Pennsylvania 19406

SEP - 6 1996

License No. 07-16529-01
Docket No. 030-11379
Control No. 123321

Garth A. Koniver, M.D., F.A.C.R.
Radiation Safety Officer
Papastavros' Associates Medical Imaging
Suite 100, Professional Building IV
1701 Augustine Cut-off
Wilmington, DE 19803

Dear Dr. Koniver:

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Until your license is terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," 10 CFR Part 35, "Medical Use of Byproduct Material," and other applicable regulations.

2. Notify NRC, in accordance with 10 CFR 35.14, no later than 30 days after:

   a. the date that you permit any individual to work as an Authorized User or an Authorized Nuclear Pharmacist pursuant to 10 CFR 35.13(b)(1) through (4), and provide to the Commission a copy of the board certification, the Commission or Agreement State license, or the permit issued by a licensee of broad scope identifying the individual;

   b. an Authorized User, Authorized Nuclear Pharmacist, Radiation Safety Officer, Teletherapy Physicist, or Medical Physicist permanently discontinues performance of duties under the license or has a name change; or

   c. when the mailing address on the license changes (no fee is required if the location of byproduct material remains the same).

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3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when you decide to terminate all activities involving materials authorized under the license.

4. In accordance with 10 CFR 35.13, request and obtain a license amendment before you:

   a. receive or use byproduct material for a clinical procedure permitted under Part 35 but not permitted by your license issued pursuant to this Part;

   b. permit an individual, except as specified in 10 CFR 35.14(b)(1) through (4), to work as an Authorized User or Authorized Nuclear Pharmacist under the license;

   c. change Radiation Safety Officer, Teletherapy Physicist or Medical Physicist;

   d. order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;

   e. add or change the areas of use, or address or addresses of use identified in the license application or on the license.

5. Receive written approval from the NRC prior to any change in ownership of your organization in accordance with 10 CFR 30.34(b).

6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or a certifying official of the licensee rather than the Radiation Safety Officer or a consultant.

You will be periodically inspected by the NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), NUREG 1600.

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement actions will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Thank you for your cooperation.

Sincerely,

ORIGINAL SIGNED BY:

Michelle R. Beardsley
Division of Nuclear Materials Safety

License No. 07-16529-01
Docket No. 030-11379
Control No. 123321

Enclosures:
1. Amendment No. 19
2. 10 CFR Parts 2, 19, 20, 30, 31, 35, and 170

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OFFICE	DNMS/RI	N	DNMS/RI					
NAME	Beardsley/mb							
DATE	08/04/96		08/ /96		08/ /96		08/ /96	

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PAPASTAVROS' ASSOCIATES

M E D I C A L I M A G I N G

1701 Augustine Cut-Off, Suite 100, Professional Building IV, Wilmington, DE 19803 TEL. 302-652-3016 FAX 302-652-2534
40 Polly Drummond Hill Road, Newark, DE 19711 TEL. 302-737-5990 FAX 302-738-9176

Garth A. Koniver, M.D., F.A.C.R.
Thomas W. Fiss, M.D.
Majid Mansoory, M.D.
Stephen J. Lawless, M.D.
James A. Murphy, M.D.
John D. McAllister II, M.D.

Diagnostic Roentgenology
Computerized Tomography
Magnetic Resonance Imaging
Nuclear Medicine
Ultrasound including cardiac
Mammography

August 20, 1996

Ms. Michelle R. Beardsley
Division of Nuclear Material Safety
U.S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406

Re: Radioactive Material License
No. 07-16529-01
Docket No. 030-11379, Control No. 123321

Dear Ms. Beardsley:

We recently noted that the ranges for the Eberline ASP-1 Analog Smart Portable survey meter, referred to in our correspondence of July 22, 1996, cover 0.01 to 10,000 mR/hr exposure rates, not the 20 mR/hr to 1 R/hr listed in that letter.

Please make these changes to our license renewal application. Contact me if I can provide additional information.

Thank you.

Sincerely,

Garth A. Koniver, M.D.

GAK/krc

OFFICIAL RECORD COPY ML 10

123321
AUG 26 1996

PAPASTAVROS' ASSOCIATES

MEDICAL IMAGING

1701 Augustine Cut-Off, Suite 100, Professional Building IV, Wilmington, DE 19803 TEL. 302-652-3016 FAX 302-652-2534
40 Polly Drummond Hill Road, Newark, DE 19711 TEL. 302-737-5990 FAX 302-738-9176

Garth A. Koniver, M.D., F.A.C.R.
Thomas W. Fiss, M.D.
Majid Mansoory, M.D.
Stephen J. Lawless, M.D.
James A. Murphy, M.D.
John D. McAllister II, M.D.

M516
J-1

Diagnostic Roentgenology
Computerized Tomography
Magnetic Resonance Imaging
Nuclear Medicine
Ultrasound including cardiac
Mammography

July 29, 1996

Ms. Michelle R. Beardsley
Division of Nuclear Material Safety
U. S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406

RE: Radioactive Material License
No. 07-16529-01
Docket No. 030-11379, Control No. 123321

Dear Ms. Beardsley:

This is in response to your letter dated July 1, 1996, in which you requested additional information to aid in your review of our radioactive material license renewal application. The following responses chronicle your sequence of questions:

1. The radiation safety training program will be provided to individuals who work in or frequent a restricted area. In our facilities, entrance into the hot lab, where radioactive materials are prepared for us and are stored, is restricted to the Nuclear Medicine Technologists. Housekeeping personnel, for example, do not have access to this area.

2. The name of one of the services we use to have our survey instruments calibrated is Radiation Services, Inc., 5204 Minnick Road, P O Box 1526, Laurel, MD 20707-0953, MD, Radioactive Material License No. 33-021-01.

3. The Eberline ASPI survey meters have ranges from 20 mr/hr to 1R/hr.

4. Individuals who are occupationally exposed on a regular basis and who handle radioactive materials are issued whole body and finger monitoring devices which are exchanged monthly and analyzed by a NVI.AP-approved service. The Radiation Safety Officer reviews each dosimetry report to identify individuals whose exposure is unexpectedly high.

123321

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AUG - 1 1996

5. The ALARA Investigational Levels are 10% (for Level I) and 30% (for level II) of regulatory limits as specified in 10 CFR Part 20. The Radiation Safety Officer investigation of recorded radiation exposure may include personnel interviews and observations of work practices. Workers are encouraged to approach their supervisor or the Radiation Safety Officer if they feel that ALARA is not being promoted on the job. A review of the "Notice to Employees' is included in the annual radiation safety review.

6. A trigger level of 200 dpm/100 sq.cm. will be used when I-131 is used in the Nuclear Medicine Department. The Captus 100NaI well scintillation detector is used to count wipe samples.

Please contact me if I can provide additional information. Thank you.

Sincerely

Garth A. Koniver, M.D., F.A.C.R.
Radiation Safety Officer

GAK:spr

JUL - 1 1996

License No. 07-16529-01
Docket No. 030-11379
Control No. 123321

Garth A. Koniver, M.D., FACR
Radiation Safety Officer
Papastavros' Assoc. Medical Imaging
Suite 100, Professional Bldg. IV
1701 Augustine Cut-Off
Wilmington, DE 19803

Dear Dr. Koniver:

This is in reference to your application dated June 6, 1996 to renew your byproduct materials license. In order to continue our review, we need the following additional information:

1. Please identify the groups of workers or individuals who are included in your personnel training program (ancillary workers should be included even if their exposure does not appear that it would reach 100 mrem in a year).

2. Your application states that you will have your instruments calibrated by instrument calibration service licensed by the NRC or an Agreement State. Please provide the name and NRC or Agreement State license number of at least one instrument calibration service that you may utilize.

3. Please indicate the range(s) covered by the survey meters listed in your application.

4. Regarding your personnel exposure monitoring program:

    a. Please confirm that individuals who are occupationally exposed on a regular basis and who handle radioactive material will be issued whole body and finger monitoring devices.

    b. Specify the frequency of exchange for monitoring devices.

    c. Confirm that the RSO will promptly review all exposure reports to look for workers whose exposure is unexpectedly high.

5. Regarding your ALARA program, please indicate your investigational levels and also the actions that will be taken if these are apprached/exceeded; you may refer to Appendix G of Regulatory Guide 10.8, Rev.2 for an acceptable program. In addition, please confirm that workers will be instructed in recourses available if they feel that ALARA is not being promoted on the job.

OFFICIAL RECORD COPY

ML 10

6. Regarding your trigger levels for wipe tests:

   a. Regulatory Guide 10.8, Rev.2 recommends a trigger level of 200 dpm for iodine-131. Please confirm that you will use a trigger level of 200 dpm when iodine-131 is used.

   b. Please indicate the instrument used for wipe tests.

7. Please note that your Quality Management Program (QMP) will not be reviewed as part of your renewal application. Any changes/modifications to your QMP should be sent under separate cover to NRC Region 1, Attention: Licensing Assistance Section.

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. 123321. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-6942.

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:
Michelle Beardsley

Michelle R. Beardsley
Division of Nuclear Materials Safety

License No. 07-16529-01
Docket No. 030-11379
Control No. 123321

Enclosures:
1. 10 CFR Parts 20 and 35
2. Regulatory Guide 10.8, Rev.2

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OFFICE	DNMS/RI	N	DNMS/RI					
NAME	Beardsley							
DATE	06/24/96		06/ /96		06/ /96		06/ /96	

OFFICIAL RECORD COPY

JUN 14 1996

Garth A. Koniver, M.D., FACR
Radiation Safety Officer
Papastavros' Assoc. Medical Imaging
Suite 100, Professional Bldg. IV
1701 Augustine Cut-Off
Wilmington, DE 19803

SUBJECT: LICENSE RENEWAL APPLICATION

Dear Dr. Koniver:

This is to acknowledge receipt of your application for renewal of materials(s) license identified below. 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 below.

Sincerely,

Original Signed By
Cheryl K. Burbacher

for

Sheryl Villar
Licensing Administrative Specialist
Division of Nuclear Materials Safety

License No. 07-16529-01
Docket No. 030-11379
Control No. 123321

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NAME	RBrown/gcb		SVillar					
DATE	06/14/96		06/14/96		06/ /96		06/ /96	

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NRC FORM 313 (10-94)
10 CFR 30, 32, 33, 34, 35, 36, 39 and 40

U. S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIAL LICENSE

APPROVED BY OMB: NO. 3150-0120
EXPIRES 6-30-96

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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. 030-11379

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

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:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

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

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

X

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

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 JURISDICTIONS.

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

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [XX] C. RENEWAL OF LICENSE NUMBER 07-16529-01

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

Papastavros' Assoc, Medical Imaging
1701 Augustine Cut-Off
Wilmington, DE 19803

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

Suite 100, Bldg IV
1701 Augustine Cut-Off
Wilmington, DE 19803

Polly Drummond Plaza
Polly Drummond Road &
Kirkwood Highway
Newark, DE 19711

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Garth A. Koniver, M.D.

TELEPHONE NUMBER
302-652-3016

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 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 | AMOUNT ENCLOSED $

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, 36, 39 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.

CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE	SIGNATURE	DATE
Garth A. Koniver, M.D.	Garth A. Koniver, MD	6-6-96

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		
APPROVED BY				DATE	

NRC FORM 313 (10-94)

PRINTED ON RECYCLED PAPER

123321

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JUN 10 1996

PAPASTAVROS' ASSOCIATES

M E D I C A L I M A G I N G

1701 Augustine Cut-Off, Suite 100, Professional Building IV, Wilmington, DE 19803 TEL. 302-652-3016 FAX 302-652-2534
40 Polly Drummond Hill Road, Newark, DE 19711 TEL. 302-737-5990 FAX 302-738-9176

Garth A. Koniver, M.D., F.A.C.R.
Thomas W. Fiss, M.D.
Majid Mansoory, M.D.
Stephen J. Lawless, M.D.
James A. Murphy, M.D.
John D. McAllister II, M.D.

Diagnostic Roentgenology
Computerized Tomography
Magnetic Resonance Imaging
Nuclear Medicine
Ultrasound including cardiac
Mammography

June 10, 1996

U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Re: Radioactive Material License
No. 07-16529-01

Dear Sir:

This letter is to inform you that we are requesting renewal of our Radioactive Materials License No. 07-16529-01, which has an expiration date of July 31, 1996. Although we believe that this license is eligible for the one-time extension, we have prepared a license renewal package which reflects our current radiation safety program. Per the recent publication of 10 CFR Part 170 , we understand that a license renewal fee is not required at this time.

Please contact me if I can provide additional information. Thank you.

Sincerely,

Garth A. Koniver, MD

Garth A. Koniver, M.D., F.A.C.R.

Radiation Safety Officer

Enclosures

123321

RADIOACTIVE MATERIAL AND PURPOSES FOR WHICH MATERIAL WILL BE USED

A: Byproduct Material: Any byproduct material identified in 10 CFR 35.100

Physical Form: Any radiopharmaceutical identified in 10 CFR 35.100

Amount: As Needed

Use: Any uptake, dilution and excretion procedure approved in10 CFR 35.100

B. Byproduct Material: Any byproduct material identified in 10 CFR 35.200

Physical Form: Any radiopharmaceutical identified in 10 CFR 35.200 except Mo-99/Tc-99m generators and Xe-133 gas.

Amount: As Needed

Use: Any imaging and localization procedure approved in 10 CFR 35.200

C. Byproduct Material: I-131 and Sr-89 as identified in 10 CFR 35.300

Physical Form: I-131 and Sr-89 as identified in 10 CFR 35.300

Amount: As Needed

Use: I-131 for the diagnosis and treatment of hyperthyroidism, and for the treatment of cardiac dysfunction and Sr-89 for the treatment of bone metastases.

AUTHORIZED USERS FOR MEDICAL USE

Radioactive material will be used by or under the supervision of the following and for uses requested:

Authorized Users:	**Material and Use**:
Thomas W. Fiss, M.D.	As described in current license 07-16529-01
Garth A. Koniver, M.D.	As described in current license 07-16529-01
Stephen Lawless, M.D.	As described in current license 07-16529-01
John D. McAllister, II, M.D.	As described in current license 07-16529-01
James A. Murphy, M.D.	As described in current license 07-16529-01

PAPASTAVROS' ASSOCIATES MEDICAL IMAGING, WILMINGTON, DE

ATT 7.3

RADIATION SAFETY OFFICER

Garth A. Koniver, M.D. is the Radiation Safety Officer for this license.

Training and experience documentation for Dr. Koniver is included in your RAM license no. 07-16529-01 file.

RADIATION SAFETY TRAINING PROGRAM

Training will be provided to individuals who work in or frequent a restricted area and are likely to receive more than 100 mrem per year so that personnel exposures may be maintained as low as reasonably achievable (ALARA). The content of the training provided for a specific person or group of people will be commensurate with the potential radiological health protection issues this person (group) may encounter.

The training will occur before the person (group) assumes duties with, or in the vicinity of, radioactive materials, annually, and whenever there is a significant change in duties, regulations, or the terms of the Radioactive Materials licenses. The training will be provided by a person, source, or mechanism deemed appropriate by Papastavros' Associates. The training may be in the form of lectures, video-taped presentations, demonstrations, or newsletters. Records of the training will be maintained until the Nuclear Regulatory Commission terminates the license or authorizes record disposition. Records will include the name of the individual who conducted the training and/or mechanism for training, name(s) of the individual(s) who received the training, date of the training, and a list of the topics covered.

The training will ensure that personnel are informed about radiation hazards, appropriate precautions/responses, and applicable sections of the regulations. The program of instruction will include the following:

1.) Overview of the Papastavros' Associates Radiation Safety Program;
2.) Applicable regulations and license conditions;
3.) Description of areas where radioactive materials are used or stored, and sources of ionizing radiation;
4.) Characteristics of ionizing radiation;
5.) Potential hazards associated with radioactive material in each area where specific personnel work;
6.) Methods to keep personnel exposures ALARA;
7.) Appropriate radiation safety procedures;
8.) Appropriate response to warnings made in the event of any unusual occurrence or malfunction or emergency condition that may involve exposure to radiation or radioactive material;
9.) The obligation of all personnel to report unsafe, unusual, or questionable conditions to the Radiation Safety Officer;
10.) The right of all personnel to be informed of radiation exposure, personnel dosimetry, and bioassay results, and;
11.) Locations where the licensee has posted or made available notices, copies of pertinent licenses and license conditions.

FACILITIES and EQUIPMENT

Shielding/ Handling Equipment:

Lead bricks (2 " x 4 " x 8 ") used to provide local shielding in hot lab and waste storage area

Lead syringe shields for reducing exposure during the preparation and administration of radiopharmaceuticals.

Lead syringe holders for transporting syringes containing radioactivity

Lead vial and container shields ("pigs") for reducing exposure during transport and storage of vials that contain radioactive material

Remote handling devices (tongs)

Contamination Control:

Absorbent pads, "chux"

Disposable gloves

Decontaminating agents for decontaminating hands, utensils, work areas, etc.

The following radiation detection/ survey equipment is available:

Model	SN
Eberline ASP-1	2807
Eberline ASP-1	2820
Eberline ASP-1	1032

Facility Layouts/Floor Plans: see attached diagrams

PAPASTAVROS' ASSOCIATES MEDICAL IMAGING

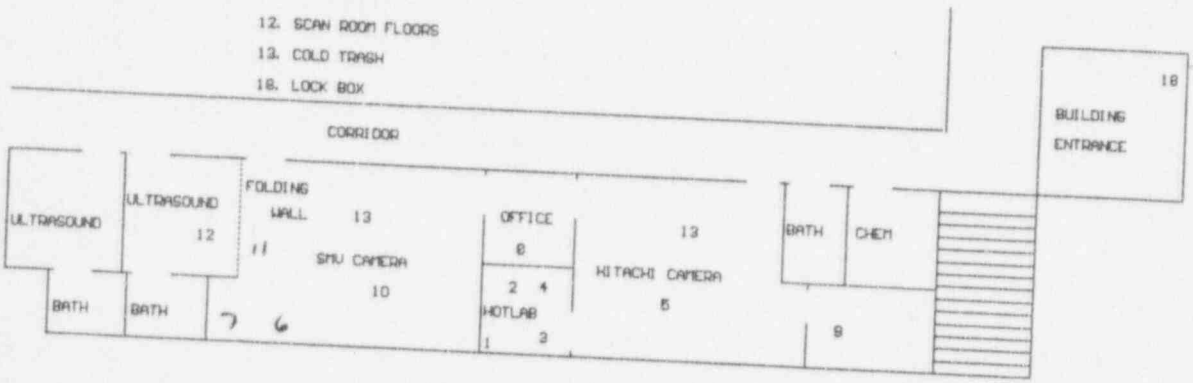
40 POLLY DRUMMOND HILL ROAD

NEWARK DE

SURVEY AREAS

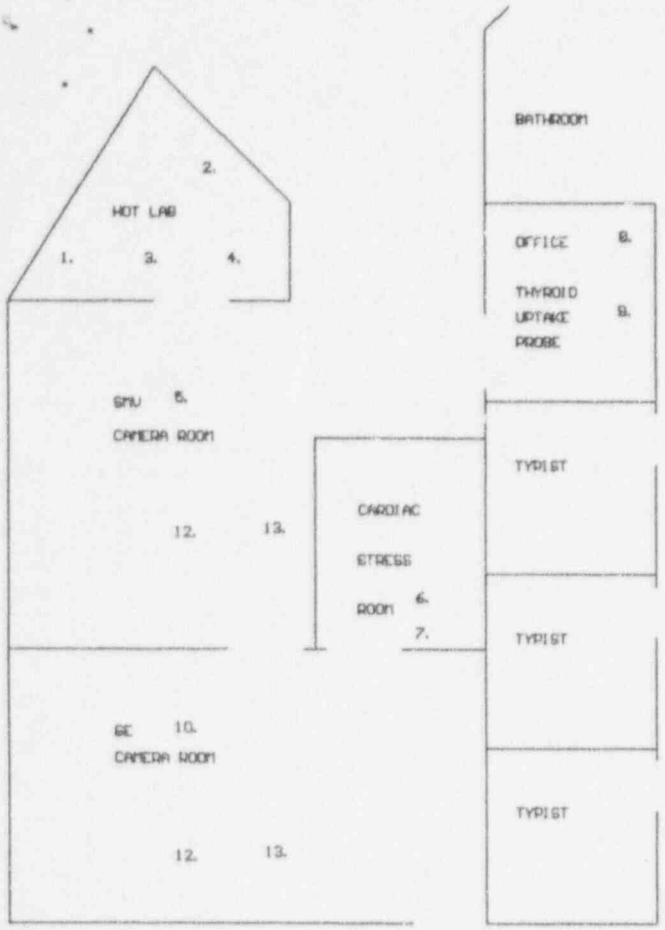
N

1. HOT WASTE AREAS
2. PREP PIT AREA
3. HOT LAB FLOOR
4. SINK
5. HITACHI CAMERA
6. STRESS AREA FLOOR
7. TREADMILL
8. OFFICE / COMPUTER
9. CAPTUS 500 UPTAKE / WELL
10. SMV CAMERA
11. PREP AREA
12. SCAN ROOM FLOORS
13. COLD TRASH
18. LOCK BOX



Plan by: < Unregistered >

Scale = 1 /16" per foot



PARASTAUROS' ASSOCIATES MEDICAL IMAGING

1701 AUGUSTINE CUT-OFF

WILMINGTON DE

SURVEY AREAS

1. HOT WASTE AREA
2. PREP PIT / COUNTERS
3. HOT LAB FLOOR
4. SINK
5. SMV CAMERA
6. STRESS LAB FLOOR
7. TREADMILL
8. OFFICE / COMPUTER
9. CAPTUS 500 UPTAKE / WELL
10. GE CAMERA
11. PREP AREA
12. SCAN ROOM FLOORS
13. COLD TRASH
18. LOCK BOX

Plan by: < Unregistered >

Scale = 1 /8" per foot

CALIBRATION OF SURVEY METER INSTRUMENTATION

Survey meter calibrations will be conducted at intervals not to exceed 12 months by a commercial instrument calibration service such that the requirements of 10 CFR 35.51, "Calibration and Check of Survey Instruments," are fulfilled.

DOSE CALIBRATOR QUALITY CONTROL PROCEDURES

1. On a daily basis , the constancy of the dose calibrator will be determined with two sources: at least 50 microCuries of Cesium-137 will be used on all commonly-used radionuclide settings, and greater than 50 microCuries of Cobalt-57 will be used on the Co-57 and Tc-99m settings. These sources are NIST traceable with an accuracy of +/-5%. Should the error of the constancy measurement be greater than +/-10 %, the dose calibrator will be appropriately repaired or replaced.

2. At intervals not to exceed 12 months, Papastavros' Associates or its health physics consultant will conduct the dose calibrator accuracy test as outlined in Appendix C of Regulatory Guide 10.8 (Revision 2). At least two sources (Co-60, Co-57, Cs-137, or Ba-133) of at least 50 microCuries will be used to insure the dose calibrator accuracy. Should the error of the accuracy measurement be greater than +/-10 %, the dose calibrator will be appropriately repaired or replaced. The four calibration sources are NIST traceable with an accuracy of +/-5%.

3. The linearity of the dose calibrator will be determined quarterly by Papastavros' Associates or its health physics consultant in accordance with the Proposed Revision 2 to Regulatory Guide 10.8, Guide for the Preparation of Applications for Medical Programs, Appendix C, Item 5 over the full range of activities of Technetium-99m used from the highest dose administered to a patient to 30 uCi. Should the linearity (measured v. calculated) vary by greater than +/- 10 %, appropriate corrective action will be conducted.

4. Test for geometrical variation will be conducted in accordance with the Proposed Revision 2 to Regulatory Guide 10.8, Guide for the Preparation of Applications for Medical Programs, Appendix C, Item 6.

5. The RSO will review and sign the records of all geometry, linearity, and accuracy tests.

Papastravos' Associates Medical Imaging
1701 Augustine Cut-Off
Wilmington DE
Department of Nuclear Medicine

Dose Calibrator
Reference Sources
Capintec CRC 15R
Serial # 1590679

SOURCE: CIS EGAG-90 S/N 3294/517

CALIBRATED ACTIVITY: 5.82 mCi
CALIBRATION DATE: 7/5/95
SETTING = Co-57

Co-57 HALF-LIFE: 271.77 DAYS

DATE	EXPECTED ACTIVITY	mCi	(+5%)	(-5%)
4/1/96	2.92	_____	3.06	2.77
4/2/96	2.91	_____	3.05	2.76
4/3/96	2.90	_____	3.05	2.76
4/4/96	2.89	_____	3.04	2.75
4/5/96	2.89	_____	3.03	2.74
4/6/96	2.88	_____	3.02	2.74
4/7/96	2.87	_____	3.02	2.73
4/8/96	2.86	_____	3.01	2.72
4/9/96	2.86	_____	3.00	2.71
4/10/96	2.85	_____	2.99	2.71
4/11/96	2.84	_____	2.98	2.70
4/12/96	2.84	_____	2.98	2.69
4/13/96	2.83	_____	2.97	2.69
4/14/96	2.82	_____	2.96	2.68
4/15/96	2.81	_____	2.95	2.67
4/16/96	2.81	_____	2.95	2.67
4/17/96	2.80	_____	2.94	2.66
4/18/96	2.79	_____	2.93	2.65
4/19/96	2.79	_____	2.92	2.65
4/20/96	2.78	_____	2.92	2.64
4/21/96	2.77	_____	2.91	2.63
4/22/96	2.76	_____	2.90	2.63
4/23/96	2.76	_____	2.89	2.62
4/24/96	2.75	_____	2.89	2.61
4/25/96	2.74	_____	2.88	2.61
4/26/96	2.74	_____	2.87	2.60
4/27/96	2.73	_____	2.87	2.59
4/28/96	2.72	_____	2.86	2.59
4/29/96	2.72	_____	2.85	2.58
4/30/96	2.71	_____	2.84	2.57

EXPECTED ACTIVITY	mCi	(+5%)	(-5%)
3.46	_____	3.63	3.28
3.45	_____	3.62	3.28
3.44	_____	3.61	3.27
3.43	_____	3.60	3.26
3.42	_____	3.59	3.25
3.41	_____	3.58	3.24
3.41	_____	3.58	3.23
3.40	_____	3.57	3.23
3.39	_____	3.56	3.22
3.38	_____	3.55	3.21
3.37	_____	3.54	3.20
3.36	_____	3.53	3.19
3.35	_____	3.52	3.19
3.34	_____	3.51	3.18
3.34	_____	3.50	3.17
3.33	_____	3.49	3.16
3.32	_____	3.49	3.15
3.32	_____	3.49	3.15
3.30	_____	3.47	3.14
3.29	_____	3.46	3.13
3.29	_____	3.45	3.12
3.28	_____	3.44	3.11
3.27	_____	3.43	3.11
3.26	_____	3.42	3.10
3.25	_____	3.41	3.09
3.24	_____	3.41	3.08
3.24	_____	3.40	3.07
3.23	_____	3.39	3.07
3.22	_____	3.38	3.06
3.21	_____	3.37	3.05

SOURCE: NEN NES-358 S/N 3580180A-23

CALIBRATED ACTIVITY: 253.00 uCi
CALIBRATION DATE: 1/24/80
SETTING: 591

Ba-133 HALF-LIFE: 3,908.18 DAYS

DATE	EXPECTED ACTIVITY	uCi	(+5%)	(-5%)
4/1/96	88.68	_____	93.117	84.249

SAMPLE FORM

PERSONNEL MONITOR PROGRAM

Individual monitoring devices will be supplied to those individuals who are likely to receive an occupational radiation dose which exceeds that specified in the applicable regulations of the U.S. Nuclear Regulatory Commission and the State of Delaware.

All film badges and thermoluminescent dosimeters that require processing to determine the radiation dose equivalent will be processed and evaluated by a dosimetry processor which holds accreditation from the National Voluntary Laboratory Accreditation Program (NVLAC) of the National Institute of Standards and Technology (NIST) for the types of radiations for which the individual wearing the dosimeter is monitored.

Papastavros' Associates Medical Imaging, Wilmington, DE

Item 10

RESPONSIBILITIES OF THE RADIATION SAFETY OFFICER

The Radiation Safety Officer is responsible for implementing the radiation safety program. The Radiation Safety Officer should ensure that radiation safety activities are being performed in accordance with approved procedures and regulatory requirements in the daily operation of the hospital's byproduct material program.

The specific duties of the Radiation Safety Officer include the following:

1. Establish and maintain operations procedures to that the radiation exposure of each worker is kept as far below the maximum permissible exposure as is practicable. Written policies will be evaluated and implemented for the following items:

    a. Authorizing the purchase of byproduct material;
    b. Receiving and opening packages of byproduct material;
    c. Storing byproduct material;
    d. Keeping an inventory of byproduct material;
    e. Using byproduct material safely;
    f. Taking emergency action if control of byproduct material is lost;
    g. Disposing of byproduct material;
    h. Training of personnel who work in or frequent areas where byproduct material is used or stored;
    i. Performing periodic radiation surveys;
    j. Performing checks of survey instruments and other safety equipment

2. Establish personnel exposure investigational levels and promptly investigate any case of excessive or abnormal exposure to determine the cause and consider actions to prevent its recurrence. This includes investigating overexposures, accidents, spills, transfers, and any other deviation from approved radiation safety practice.
3. Perform an annual review of the radiation safety program for adherence to ALARA concepts.
4. Maintain copies of all records and reports required by the NRC regulations, a copy of the regulations, each licensing request, license, amendment, renewal application, and the written policies and procedures required by the regulations.

5. Review, sign, and date the following records at the required (by regulation) frequencies:
   a. Dose calibration accuracy, linearity, and geometry dependence
   b. Leak test records of sealed sources
   c. Ambient dose rates in areas where sealed sources and brachytherapy sources are stored
   d. Personnel dosimetry reports

6. Review at least quarterly, the external radiation doses of authorized users and occupational radiation workers to determine that their doses are ALARA.

7. Schedule briefings and educational sessions to inform workers of radiation safety program efforts and mechanisms to maintain radiation exposures to occupational radiation workers and members of the general public ALARA.

Papastavros' Associates Medical Imaging, Wilmington, DE Item 10.2

Radiation Safety "As Low As Reasonably Achievable" (ALARA) Program

The goal of radiation protection is to limit the probability of radiation - induced diseases in persons exposed to radiation (Somatic effects) and in their progeny (genetic effects) to a degree that is reasonable and acceptable in relation to the benefits from the activities that involve such exposure. This objective is achieved by applying individual dose equivalent limits for occupational and nonoccupational (general public) exposures.(NCRP Report No. 91)

ALARA (acronym for "as low as is reasonably achievable") means making every reasonable effort to maintain exposures to ionizing radiation as far below the regulatory dose limits as is practical consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed radioactive materials in the public interest.

The administration of Papastavros' Associates is committed to the radiation safety program which strives to maintain ionizing radiation exposure to occupational radiation workers, occasionally-exposed employees, patients, the embryo/fetus of the declared pregnant occupational worker, and non-occupational (general public) people ALARA. Papastavros' Associates will use engineering controls, facilities, equipment, policies and procedures, and continuing education to ensure that the goals of the radiation safety program are met. The Radiation Safety Officer will personally review (annually) the radiation safety program in cooperation with members of the technical staff. The purpose of the audit is to determine that activities using radioactive materials are being conducted safely in accordance with the Nuclear Regulatory Commission regulations and license conditions, and that the overall philosophy and policies of the ALARA program are being accomplished.

All authorized users and technical staff are encouraged to review current procedures and work practices and consider new or modified procedures as appropriate to implement the ALARA concept. Occupational radiation workers, authorized users, Radiation Safety Committee members, the Radiation Safety Officer, and Papastavros' Associates administration will cooperate and communicate to resolve issues, investigate instances of deviation, and implement changes in the radiation safety program.

Papastavros' Associates Medical Imaging, Wilmington. DE

ITEM 10.3

LEAK TESTING OF SEALED SOURCES

At intervals not to exceed 6 months, all nonexempt sealed sources of byproduct radioactive material which are not stored as inventory will be leak tested by Papastavros' Associates Medical Imaging or their health physics consultant in accordance with the Model Procedure for leak testing sealed sources that is published in Appendix H to Regulatory Guide 10.8, Revision 2.

GENERAL RULES FOR THE SAFE USE OF RADIOACTIVE MATERIALS IN NUCLEAR MEDICINE

1. Laboratory and other protective clothing will be worn at all times in areas where radioactive materials are used. Disposable gloves will be worn at all times while handling radioactive materials.

2. Hands, feet, and clothing will be monitored for contamination at the end of each work day.

3. Syringe shields for preparation of patient doses and administration to patients will be used except in circumstances such as pediatric cases when their use would compromise the patient's well-being.

4. All syringes containing radioactive materials must be conspicuously labeled to identify the radiopharmaceutical name or abbreviation, type of study, or patient's name and identification number. Radioactive solutions will be confined in covered containers (vials), plainly identified, and labeled with name of radiopharmaceutical or its abbreviation.

5. There will be no eating, drinking, smoking, or application of cosmetics in any area where radioactive material is stored or used. Personnel effects, food or drink will not be stored with radioactive mateials.

6. Each patient dose will be assayed in the dose calibrator just prior to administration. Any dose that differs from the prescribed dose by more than 10% will not be used, except for prescriptions of less than 10 microcuries.

7. Personnel monitoring devices (film badge or TLD) will be worn at all times while in areas where radioactive materials are used or stored. Personnel monitoring devices will be stored at all times in a designated low background area when not being worn.

8. TLD finger badges will be worn during elution of generator (if applicable) and during preparation, assay, and injection of the radiopharmaceuticals.

9. Radioactive waste will be disposed of only in specifically designated receptacles. Disposal of liquid waste by drain shall be made only with the prior approval of the Radiation Safety Officer.

10. Kit preparation and injection areas will be surveyed for contamination after each procedure or at the end of the day and will be properly decontaminated if necessary.

11. Radioactive material will always be maintained in shielded containers (lead pigs, lead vial holders, or lead-lined boxes) while being transported.

12. The hot lab will be locked when authorized personnel are not present.

SPILL PROCEDURES

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

An example of an appropriate form used to document spill monitoring and decontamination is attached.

Papastavros' Associates Medical Imaging
40 Polly Drummond Hill Road Newark DE
Department of Nuclear Medicine
Radioactive Spill Report

Date:_____ Time:_____ Tech:_____

Location:_____

Description of event:_____

_____

_____

Suspected Isotope:_____

Actions taken:_____

_____

What can be done to prevent the event from happening again?_____

_____

DATE										
SURVEY METER #										
BACKGROUND mR/hr										
TECHNOLOGIST INITIALS										
AREA	mR/hr	mR/hr	mR/hr	mR/hr	mR/hr	mR/hr	mR/hr	mR/hr	mR/hr	mR/hr
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

SURVEY METERS: #1 EBERLINE ASP-1 / #2 EBERLINE ASP-1 / #3 EBERLINE ASP-1
S/N# 2807 S/N# 2820 S/N# 1032

Draw a map of the contaminated area on the back of this form and make any notes to describe the area. Attach wipes of each area to this form.

DATE / TIME AREA WAS RELEASED:_____

RADIATION SAFETY OFFICER_____ DATE:_____

SAMPLE FORM OFFICIAL RECORD COPY M. 10 123321

Ordering and Receiving Radioactive Material

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.

Instructions for Receiving and Returning Packages Containing Radioactive Material

Receipt of Packages of Radioactive Material

Radiation levels must be measured on the external surface of the package and at a distance of 3 feet from the external surface using a calibrated ionization chamber or Geiger-Muller Counter. The monitoring must be performed as soon as possible after receipt, but no later than 3 hours after the package is received at the facility if received during normal working hours or within three hours from the beginning of the next working day if it is received after working hours.

If radiation levels are found on the external surface of the package in excess of 200 mR/hour, or at 3 feet from the external surface of the package in excess of 10 mR/hour, the technologist should immediately notify the Radiation Safety Officer (RSO) or radiologist on call, who will notify the director of Region I NRC, and the final delivering carrier.

If removable contamination in excess of 0.01 microcuries (22,000 dpm) per 100 cm of package surface is found on the external surfaces of the package, the RSO shall immediately notify the Region I, USNRC Office.

The following procedures for opening each package should be followed:

A. Put on gloves to prevent hand contamination.

B. Visually inspect the package for any sign of damage (ie. wet or crushed). If damage is noted, stop the procedure and notify the RSO or radiologist on call. Wipe the external surface of the package.

C. Measure the exposure rate from the package at one meter and at the package surface. If it is higher than the transport index or higher than expected, stop and notify the RSO or radiologist on call.

D. Open the package with the following precautionary steps:
   1. Remove the packing slip and open the outer package.
   2. Open the inner package and verify that the contents agree (type and activity) with the packing slip.

3. Check the integrity of the final source container. If evidence of seed breakage, loss of liquid, condensation, or discoloration of the packing material exists, stop and notify the RSO or radiologist on call. Special handling may be required.

E. Wipe the outside of the final source container and assay the wipe samples in the well counter.

F. If the shipment appears intact, remove the radioactive material from the package and place it behind lead shielding. Record each nuclide received, along with date, amount of activity and the name of the supplier in the receiving log.

G. Monitor the packing material and the empty package for contamination with a radiation detection survey meter before discarding.
1. If contaminated, packing materials must be discarded in the "hot" radioactive waste cans.
2. If not contaminated, remove or obliterate the radiation labels before discarding in in-house ("regular") trash.

H. Make a record of the radioactive material package receipt, survey, use, and ultimate disposition. Any discrepencies in quantity or type, loss of containment, or any contamination of packaging material must be reported to the RSO immediately, so that the shipper and supplier can be informed.

Procedures for Returning Packages to a Central Radiopharmacy (Supplier)

A. If UNIT DOSE syringes are returned, be sure the needle cap is firmly seated on the needle. Place the empty syringe in the unit dose shield and secure the screw on top.

B. If MULTI DOSE vials are returned, place the vial in the original shielding container. Secure the top with tape.

C. GM surveys will be recorded at the surface of the package. They must be less than 0.5 mR/hr.

D. A damp wipe will be taken of the package surface and counted in the well counter. The swab must be less than 6600 DPM / 300 square cm.

E. Restrictions on limited quantities must be observed as listed on the package return log.

Papastavros' Associates Medical Imaging
40 Polly Drummond Hill Road
Newark DE
Department of Nuclear Medicine

Incoming Package Surveys **DATE: / / 1996**

Nuclear Pharmacy: _____Mallinckrodt _____BRACCO Diagnostics

_____MPI Pharmacy Services Inc.

_____Syncor International Corp.

CONTENTS		CHEMICAL FORM	AMOUNT
Tc-99m	____	pertechnetate -multi dose	_____ mCi
Tc-99m	____	HDP	_____ mCi
Tl-201	____	chloride	_____ mCi
I-123	____	NaI capsule	_____ uCi
I-131	____	NaI capsule	_____ mCi
Ga-67	____	citrate	_____ mCi
In-111	____	oxine (tagged WBC)	_____ uCi
Tc-99m	____	ceretec (tagged WBC)	_____ mCi
Tc-99m	____	sulfur colloid	_____ mCi
Tc-99m	____	MAG-3	_____ mCi
	____		_____
	____		_____

Condition of package _____OK _____Wet _____Punctured _____Crushed

Radiation units on label _____T.I.

EXPOSURE RATE LIMITS

Label Type	Surface mR/hr	3 Feet mR/hr
_____ White I	<0.5	0.0
_____ Yellow II	<50	<1.0
_____ Yellow III	50 - 200	1 - 10

Survey Meter used

_____ Eberline ASP-1 S/N# 2807 Background _____mR/hr

_____ Eberline ASP-1 S/N# 2820 Surface _____mR/hr

_____ Eberline ASP-1 S/N# 1032 3 Feet _____mR/hr

Do packing slips and contents agree?

Radionuclide Y / N Amount Y / N Chemical Form Y / N

TECHNOLOGIST _____

This section to be used only if NRC and/or supplier notification is required

Time _____ **Technologist** _____

Persons notified _____

Description of problem _____

_____

_____

_____

Radiation Safety Officer _____

SAMPLE FORM

Papastavros' Associates Medical Imaging
40 Polly Drummond Hill Road
Newark DE
Department of Nuclear Medicine

Return Package Surveys **DATE: / /1996**

Nuclear Pharmacy: _____ Mallinckrodt _____ BRACCO Diagnostics

_____ MPI Pharmacy Services Inc.

_____ Syncor International Corp.

RADIONUCLIDE	LIMITED QUANTITY (mCi)	QTY RETURNED (mCi)
Co-57	9	
Co-58	2	
Ga-67	10	
I-123	5	
I-125	7	
I-131	1	
In-111	2.5	
Mo-99	2	
Tc-99m	10	
Tl-201	20	

Survey meter used: _____ Eberline ASP-1 S/N# 2807
_____ Eberline ASP-1 S/N# 2820
_____ Eberline ASP-1 S/N# 1032

Background _____ mR/hr Surface _____ mR/hr 3 feet _____ mR/hr

EXIT SURVEY MUST BE LESS THAN 0.5 mR/hr ON THE SURFACE (49 CFR 173.443)
When shipping more than one radionuclide in the same package, the limit is determined by the lowest mCi quantity assigned for the items shipped.
This package conforms to the conditions and limitations specified in 49 CFR 173.421 for radioactive material, excepted package-limited quantity material, UN2910.

TECHNOLOGIST _____

SAMPLE FORM

PROCEDURES FOR MAINTAINING RECORDS OF UNIT DOSE VIAL USE

For each unit dosage received from a supplier, make a record of the:

1. Radionuclide;
2. Generic name or its abbreviation or trade name;
3. Date of receipt;
4. Activity in millicuries or microcuries as recorded on the unit dosage or packing slip and its associated time;
5. Supplier;
6. Lot number or control number if assigned and expiration date;
7. Date of administration or disposal;
8. If administered,
   a. Prescribed dosage (unless already recorded in clinical procedure manual),
   b. Measured activity in millicuries or microcuries and date and time of measurement,
   c. Patient name and identification number if one has been assigned.
9. If discarded, the date and method of disposal; and
10. Initials of the individual who made the record.

PROCEDURES FOR MAINTAINING RECORDS OF MULTIDOSE VIAL USE

For each multidose vial that you receive from a supplier or that you prepare, make a record of this:

1. Radionuclide;

2. Chemical form or its abbreviation or trade name;

3. Date of receipt or preparation;

4. Date and time of initial activity assay and activity in millicuries and volume;

5. Supplier or kit manufacturer;

6. If administered:

   a. Date and time dosage was drawn,
   b. Prescribed dosage,
   c. Measured activity in millicuries,
   d. Patient name and identification number if one has been assigned.

7. If discarded, the method of disposal and date; and

8. Initials of the individual who made the record.

Tc-99m DTPA

PREP DATE_____

PREP TIME:_____

ACTIVITY:_____ mCi

VOLUME:_____ ml (2 - 8ml)

ASSAY:_____ mCi/ml

EXPIRATION TIME:_____ (6 HOURS)
(1 HOUR FOR GFR)

PENTETATE

STUDY: RENAL PERFUSION, GFR
AEROSOL LUNG SCAN

KIT LOT #:_____

EXPIRATION DATE:_____

NaTcO4 Rx:_____

TECHNOLOGIST:_____

TIME	PATIENT NAME	I.D.#	DECAY	ASSAY mCi/ml	DESIRED DOSE mCi	VOLUME ml	VOLUME REMAIN ml	INJECTED DOSE mCi	TECH
	SAMPLE FORM								

USE OF MÓLY/TECH GENERATORS, PREPARATION OF REAGENT KITS AND DOSE ADMINISTRATION

1. Mo-99/Tc-99m generators are not used in the Papastavros' Associates nuclear medicine facilities. The supplying nuclear pharmacy is responsible for assaying every elution of Mo-99/Tc-99m generators for molybdenum-99 breakthrough contamination. The eluates will not be used if the concentration of molybdenum to technetium is greater than 0.15 uCi moly/l mCi of technetium. Molybdenum breakthrough tests will be performed in accordance with instructions provided in the Operating/ Instruction Manual for the dose calibrator. The supplying nuclear pharmacy is responsible for performing Mo-99 breakthrough tests and notifying the NRC in accordance with the provisions of 10 CFR 21.21 if a leaking generator is detected.

2. Records of each measurement of Mo-99 concentration will be retained in the radiopharmacy and Papastavros' Associates files for three years and will include the measured activity of the Tc-99m expressed in millicuries, the measured activity of the Mo-99 expressed in microcuries, the ratio of the measures expressed as microcuries of Mo-99 per millicurie of Tc-99m, the time and date of the measurement, and the individuals who made the measurement.

3. Individuals who elute Mo-99/Tc-99m generators, prepare radiopharmaceuticals from reagent kits, and all personnel who prepre patient doses or work in areas used for elution of generators, preparation of radiopharmaceuticals or preparation of individual patient doses will monitor their hands and clothing for contamination before leaving the Nuclear Medicine Department.

4. The activity of all radionuclides or radiopharmaceutical doses to be administered to patients will first be determined by mathematical calculations. Once drawn, the total activity contained in the syringe will be double checked by the use of the dose calibrator. Except for this determination, the syringe will be kept in the lead syringe shield and/or lead pig. All radiopharmaceuticals will be assayed just prior to administration to the patient.

5. Patient dose information of administered technetium-99 and all other administered radioactive materials will be recorded in the patient dose log in accordance with Regulatory Guide 10.8.

Surveys for Ambient Radiation Exposure Rate

1. All areas where radiopharmaceuticals are routinely prepared for use or administration will be surveyed with a radiation detection instrument at the end of each day of use. The radiation survey instrument will be checked for proper operation with a dedicated check source each day of use.

2. All areas where radiopharmaceuticals or radiopharmaceutical waste is stored will be surveyed at least once each week with a radiation detection survey instrument. The radiation survey instrument will be checked for proper operation with a dedicated check source each day of use.

3. The individual performing the survey will notify the Radiation Safety Officer if an exposure rate exceeds trigger levels.

4. Any daily survey measurement which exceeds this exposure rate trigger level is also wiped to check for removable contamination. The trigger level for removable contamination in restricted areas is 2000 dpm/sq. cm. and 200 dpm/sq.cm in unrestricted areas.

Papastravos' Associates Medical Imaging
1701 Augustine Cut-Off
Wilmington DE
Department of Nuclear Medicine

Daily Radiation Surveys

			Daily Room Surveys			all readings in mR/hr			
			5/6/96	5/7/96	5/8/96	5/9/96	5/10/96	5/11/96	5/12/96
HOT LAB AREA	AREA	TRIGGER	MON	TUE	WED	THUR	FRI	SAT	SUN
1. HOT WASTE AREA	1	5.0 mR/hr							
2. PREP PIT/COUNTER	1	0.5 mR/hr							
3. HOT LAB FLOOR	1	0.5 mR/hr							
4. SINK	1	0.5 mR/hr							
SCAN ROOM AREA									
5. GE 400AT CAMERA	2	0.5 mR/hr							
6. STRESS LAB FLOOR	2	0.5 mR/hr							
7. TREADMILL	2	0.5 mR/hr							
8. OFFICE COMPUTER	3	0.5 mR/hr							
9. CAPTUS 500 UPTAKE/WELL	4	0.5 mR/hr							
10. SMV SX40 CAMERA	4	0.5 mR/hr							
11. PREP AREA	4	0.5 mR/hr							
12. SCAN ROOM FLOORS	4	0.5 mR/hr							
13. COLD TRASH	4	0.1 mR/hr							
TECHNOLOGISTS									
14. SANDI HARRINGTON	5	0.1 mR/hr							
15. RHONDA EDDIS	6	0.1 mR/hr							
16. CHRISTINE HARMAN	7	0.1 mR/hr							
17. LAURIE ATKINS	8	0.1 mR/hr							
RAM DROPOFF AREA									
18. LOCK BOX	9	0.1 mR/hr							
SURVEY METERS									
EBERLINE ASP-1 S/N# 2820	BKG	mR/hr							
EBERLINE ASP-1 S/N# 1032	BKG	mR/hr							
EBERLINE ASP-1 S/N#2807	BKG	mR/hr							
SURVEYOR'S INITIALS									

Each individual area will be surveyed at the end of each working day. Each wipe area will be wiped for removable contamination on Friday and analyzed using the CAPTUS 500 well, serial # 000101. Any daily survey that exceeds the trigger level will also be wiped for removable contamination. Wipes may not exceed 200 dpm/100 sq cm in unrestricted areas or 2000 dpm/100 sq cm in restricted areas. The RSO must be notified when either is met or exceeded.

123321

SAMPLE FORM

OFFICIAL RECORD COPY ML 10

Procedures for Monitoring, Calculating, and Controlling Air Concentrations

Papastavros' Associates Medical Imaging nuclear medicine facilities are currently performing lung imaging which requires the patient to inhale a radioactive aerosol. Radioaerosols will be administered using a single (patient)-use delivery system. Spent aerosol will not be exhausted to the atmosphere. The contaminated radioaerosol generator, plastic tubing, and patient mouthpiece will be handled as radioactive trash and held for decay following the ventilation procedure. Routine surveys for contamination and ambient exposure rate will be performed in the areas where the radioaerosol generator was prepared and the ventilation study performed.

RADIOPHARMACEUTICAL THERAPY

Outpatient radiopharmaceutical therapy will be administered using either NaI-131 for the treatment of hyperthyroidism or Sr-89 chloride for the treatment of bone metastases. Adminstrations will be delivered in accordance with the provisions of the NRC Quality Management Program and the specific requirements of 10 CFR 35.75, "Release of patients containing radiopharmaceuticals or permanent implants."

Individuals who helped prepare or administer a dosage of liquid NaI-131 will have their thyroid burdens measured within 3 days after administering the dosage. The record of each thyroid burden measurement will include its date, the name of the individual whose thyroid burden was measured, and the initials of the individual who made the measurements.

Radiation safety guidance will be provided to the patient that will help to keep radiation dose to household members and the public as low as reasonably achievable.

Radioactive Waste Disposal

POLICY: To assure safe disposal of radioactive waste in accordance with the DE Health and Social Services and U.S. Regulatory Commission regulations while keeping personnel exposures ALARA.

PROCEDURES

Radioactive Waste Storage: The temporary Radioactive Waste storage area is located within the department hot lab. The radioactive waste storage area/hot lab is locked when staff personnel are not present. Radioactive waste will be stored on-site for decay for at least 10 half lives and until radiation levels have reached background level or returned to the commercial radiopharmacy.

Shielding: Lead or another suitable shielding material will be used as necessary to reduce the radiation exposure levels to the lowest reasonable levels while the radioactive waste is in temporary storage.

Waste Segregation: Syringes and vials containing radionuclides with a half life greater than 3 days will be returned to the central nuclear pharmacy in their original shipping container(s) in accordance with 10 CFR Part 71 and 49 CFR Part 173 regulations (governing the transport of radioactive material). Nal-131 capsules, if not administered to a patient, may be stored on site for decay rather than returned to the nuclear pharmacy. A package return log form will be completed and maintained.

Other syringes and vials containing radionuclides will be stored on site in red, biohazard buckets and held for decay. All contaminated solid trash such as gloves, absorbent paper, IV bags, linens, etc., will be stored and held for decay.

All solid radioactive waste not returned to the central nuclear pharmacy will be held for decay for a minimum of 10 half lives and 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. Once this has been achieved, all radiation levels will be removed or obliterated, and the waste will be disposed of as normal, biohazard trash. A radioactive waste disposal record will be maintained. The record will describe the type of container, the radionuclide contents, the date the container was sealed and placed in storage, the survey meter used and initial exposure rate readings, the pre-disposal survey meter readings, the date of disposal, disposition of the materials, and initials of the technologist placing the container is storage and disposing the container.

Excretion from patients undergoing medical diagnosis or therapy is exempt from these requirements.

Papastavros' Associates Medical Imaging
40 Polly Drummond Hill Road
Newark DE
Department of Nuclear Medicine

Radioactive Waste Disposal Record

ISOTOPE		HALF-LIFE	10 X HALF-LIFE	15 X HALF-LIFE
Tc-99m	_____	6.03 hours	2.5 days	3.76 days
I-123	_____	13.1 hours	5.5 days	8.18 days
In-111	_____	2.82 days	28.2 days	42.3 days
Tl-201	_____	3.08 days	30.8 days	46.2 days
Ga-67	_____	3.26 days	32.6 days	48.9 days
I-131	_____	8.05 days	80.5 days	120.75 days
OTHER				

DATE CONTAINER SEALED_____ TECHNOLOGIST_____

SURVEY METER: Eberline ASP-1_____
S/N# 2807
Eberline ASP-1_____
S/N# 2820
Eberline ASP-1_____
S/N# 1032

BACKGROUND_____ mR/hr

CONTAINER SURFACE _____ mR/hr

3 FEET FROM SURFACE _____ mR/hr

LONGEST LIVED NUCLIDE _____ 15 x HALF-LIFE_____

DATE CONTAINER MAY BE DISPOSED OF_____

CONTAINER PRE-DISPOSAL SURVEY

DATE _____ TECHNOLOGIST_____

SURVEY METER: LUDLUM 2807_____
LUDLUM 2820_____
LUDLUM 1032_____

BACKGROUND_____ mR/hr

CONTAINER SURFACE _____ mR/hr

3 FEET FROM SURFACE _____ mR/hr

FINAL DISPOSITION OF CONTAINER AND CONTENTS:
All trash, syringes and vials will be packaged according to Papastavros' Associates Medical Imaging infectious waste policy and disposed of accordingly.

COMMENTS:

SAMPLE FORM

Papastavros' Associates Medical Imaging

Nuclear Regulatory Commission Quality Management Program

POLICY: To implement and execute policies and procedures developed to provide high confidence that byproduct material or radiation from byproduct material will be administered as directed by an Authorized User Physician.

PROCEDURE:

The specific conditions of the Nuclear Regulatory Commission (NRC) Quality Management Program at Papastavros' Associates Medical Imaging are described in detail in the document provided to the NRC and implemented on January 27, 1992.

At Papastavros' Associates, the QMP Program governs therapeutic administrations of byproduct material such as Sr-89 Chloride and certain uses of radioactive sodium iodide NaI-131 and NaI-125.

Appropriately developed procedures are followed and documentation is maintained which supports the ~~five~~ four objectives of the NRC QA Program:

1. A written directive is prepared before administration;
2. The patient's identity is verified by more than one method as the individual named in the written directive before each administration;
3. Any deviation from the written directive is identified and evaluated, and appropriate action is taken; and
4. Each administration is in accordance with the written directive.

Periodic reviews of the QM program are conducted to include radio-pharmaceutical therapy and NaI administrations. Appropriate records are maintained in the Department of Nuclear Medicine.

Papastavros' Associates Medical Imaging
40 Polly Drummond Hill Road
Newark DE
Department of Nuclear Medicine

Written directive for the administration of NaI-131

PATIENT NAME:_____ DATE:_____

ISOTOPE: NaI-131 TYPE: SOLID/CAPSULE

Papastavros' Associates Medical Imaging Department of Nuclear Medicine Staff are authorized to

administer_____ mCi NaI-131 by mouth for _____

on _____/_____/_____

PHYSICIAN _____

_____

Patient must be identified by at least two of the following:

_____Stated name _____ ID bracelet

_____ Birthdate _____ Medical insurance card

_____ Address _____ Social security card

_____ Photo ID _____ Driver's License

_____

Date of administration _____/_____/_____ Time of administration_____

Activity administered _____ mCi Number of Capsules _____

Activity of Empty Vial _____ mCi

Technologist _____

_____

PLACE

VIAL

LABEL

HERE

SAMPLE FORM

_____

PAPASTAVROS' ASSOCIATES
Department of Nuclear Medicine

NRC Quality Management Periodic Review Form
Radiopharmaceutical Administration

DATE OF REVIEW:_____ **PERSONS CONDUCTING REVIEW:**_____

PATIENT:_____ **PATIENT I.D.:**_____

DATE OF RADIONUCLIDE ADMINISTRATION:_____

RADIONUCLIDE ADMINISTERED: NaI-131

DIAGNOSIS: Hyperthyroid / Thyroid Cancer / Whole Body scan for metastatic disease / Substernal Thyroid

WRITTEN DIRECTIVE SUMMARY:_____

_____

REVIEW SUMMARY

Prior to the administration of the radiopharmaceutical, written directive signed and dated?_____

Radiopharmaceutical ? _____

Dosage ?_____

Route of administration ?_____

Written directive and radiopharmaceutical measured agree?_____

Physician makes, dates, signs written record that documents:

Radiopharmaceutical administered?_____

Dosage administered?_____

Time of administration?_____

Physician who wrote the original written directive administered radiopharmaceutical or assigned / documented responsibility to other authorized user?_____

COMMENTS:

PAPASTAVROS' ASSOCIATES
Department of Nuclear Medicine

NRC Quality Management Periodic Review Form
Radiopharmaceutical Administration

DATE OF REVIEW:_____ **PERSONS CONDUCTING REVIEW:**_____

PATIENT:_____ **PATIENT I.D.:**_____

DATE OF RADIONUCLIDE ADMINISTRATION:_____

RADIONUCLIDE ADMINISTERED: Sr-89 Chloride

DIAGNOSIS: Bone Metastases

WRITTEN DIRECTIVE SUMMARY:_____

REVIEW SUMMARY

Prior to the administration of the radiopharmaceutical, written directive signed and dated?_____

Radiopharmaceutical ? _____

Dosage ?_____

Route of administration ?_____

Written directive and radiopharmaceutical measured agree?_____

Physician makes, dates, signs written record that documents:

Radiopharmaceutical administered?_____

Dosage administered?_____

Time of administration?_____ _____

Physician who wrote the original written directive administered radiopharmaceutical or assigned / documented responsibility to other authorized user?_____

COMMENTS:

123321

OFFICIAL RECORD COPY ML 10

NRC FORM 577 (1-95) U.S. NUCLEAR REGULATORY COMMISSION

LICENSE FEE REQUIREMENTS

LICENSE FEE AND DEBT COLLECTION BRANCH
DIVISION OF ACCOUNTING AND FINANCE
OFFICE OF THE CONTROLLER
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

PAPASTAVROS' ASSOCIATES MEDICAL IMAGING
ATTN: GARTH A. KONIVER, M.D., F.A.C.R.
RADIATION SAFETY OFFICER
1701 AUGUSTINE CUT-OFF
WILMINGTON, DE 19803

TYPE OF ACTION

- ☐ NEW LICENSE
- ☒ RENEWAL OF LICENSE
- ☐ AMENDMENT TO LICENSE

REQUESTED DATE: 6-6-96

LICENSE NUMBER: 07-16529-01

CONTROL NUMBER: 123321

I. APPLICATION FEE DUE

Your request for a licensing action is subject to the fee(s) in the category(ies) noted below in accordance with Section 170.31 of the enclosed Federal Register notice. Payment of the fee is required prior to the issuance of the license, renewal, or amendment.

FEE CATEGORY	APPLICATION	RENEWAL	AMENDMENT
7C	$	$ 1,400.00	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$

FEE(s) DUE	$ 1,400.00
PAYMENT RECEIVED	$ 0.00
AMOUNT DUE	$ 1,400.00

☒ Your request was received without the prescribed application fee.

☐ We received your Check No. _____ in the amount of $ _____. Payment of the additional fee noted above is required.

☐ Your request will increase the scope of your license program. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(d)(2).

☐ Your license expired prior to the receipt of your application for renewal. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(a).

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

II. FEE NOT REQUIRED

☐ Enclosed is Check No. _____ which accompanied your request. The fee is not required because:

☐ We received your Check No. _____ in payment of the fee.

☐ The Licensing staff has informed us that your request is to be considered as a continuation of your request dated _____, Control No. _____.

☐ Your request was combined, prior to review, with your request, Control No. _____.

III. CHECK RETURNED

☐ Enclosed is Check No. _____ which was returned to us by the bank for:

- ☐ INSUFFICIENT FUNDS
- ☐ ACCOUNT CLOSED
- ☐ OTHER

MAIL THE REPLACEMENT CHECK TO THE ADDRESS LISTED AT THE TOP OF THIS FORM AND REFERENCE THE ABOVE CONTROL NUMBER.

IV. LICENSE ISSUED WITHOUT THE REQUIRED FEE

☐ License No. _____, Amendment No. _____, issued on _____ was issued without the required fee being collected. The fee required is noted in Section I of this form.

☐ The scope of your licensed program was increased. Therefore, your request is subject to the application fee(s) noted in Section 1 of this form. Refer to Section 170.31 and Footnote 1(d)(2).

☐ Because of the urgency of your request, the license was issued without remittance of the prescribed fee noted in Section 1 of this form.

SIGNATURE -- LICENSE FEE ANALYST	LFDCB	LFDCB
BRENDA BROWN	BB 6/17/96	

Distribution: Pending File
MAF Correspondence FY
LFDCB Chief LFDCB Analyst DC/DAF/BF (LF-3-2-7)
Invoice File w/encl LFDCB R/F (2) DAF R/F

DATE: 6-17-96

ACTION: R TABLE ID: DXRF USERID: AV13

- *** DOCUMENT CROSS REFERENCE INQUIRY TABLE ***

KEY IS TRANS CODE, TRANS NUMBER, F/B/A, REF TRANS ID, ACCEPT DATE, DOC ACTION

TRANS CODE: LD TRANS NUMBER: AM4851-96 DOC TOTAL: 4,300.00
OUTST AMT: 0.00

	F/B/A	REF TRANS ID	ACCEPT DATE	DOC ACT	VENDOR		AMOUNT
01-	A		07 08 96	E	071652901	L	4,300.00
	LAST BATCH NUMBER:		CLEARING ACTION:				
02-	F	CR L8960809050	08 13 96	E	071652901	L	4,300.00
	LAST BATCH NUMBER:		CLEARING ACTION:				
03-	F	WA AM4851-96	08 12 96	E	071652901	L	28.51
	LAST BATCH NUMBER:		CLEARING ACTION:				
04-							
	LAST BATCH NUMBER:		CLEARING ACTION:				
05-							
	LAST BATCH NUMBER:		CLEARING ACTION:				
06-							
	LAST BATCH NUMBER:		CLEARING ACTION:				

04-*L009 HEADER CHANGE

ACTION: R TABLEID: ARHT USERID: AV13

*** RECEIVABLE HEADER INQUIRY TABLE ***

KEY IS TRANS CODE, DOC NUM

TRANS CODE: LD DOC NUM: AM4851-96 DOC TYPE:
DOCUMENT DATE: 07 02 96 COMMENTS: 07-16529-01
PAYER CODE/NAME: 071652901 L / PAPASTAVROS ASSOC MED IMAGING
ADDRESS: STE 100/PROFESSIONAL BLDG IV
1701 AUGUESTINE CUT-OFF
CITY: WILMINGTON STATE: DE ZIP: 19803 -

COLL DUE DATE: 08 02 96	LAST BILL DATE/AMT: 07 02 96 /		4,300.00
PRINT BILL: P	BILL PRINT DATE: 07 02 96	BILLED AMT:	4,300.00
INT RATE: 5.000	INT APPLY DATE: 08 02 96	INTEREST AMT:	18.51
TEXT TYPE:	ADM CHGS APPLY DATE: 08 02 96	ADM CHGS AMT:	10.00
WAIVER FLAG:	PEN APPLY DATE:	PENALTY AMT:	0.00
DUNNING COUNT: 01	LAST DUN DATE: 08 02 96	TOTAL AMT:	4,328.51
OVERDUE STATUS:	OVERDUE DATE:	COLLECTED AMT:	4,328.51
		OUTSTANDING BALANCE:	0.00
WRITE-OFF FLAG:	WRITE-OFF DATE:	AGREEMENT NUM:	
WRITE-OFF REASON:	WRITE-OFF AMT:	0.00	CASE HISTORY FLAG: Y
DOC CLOSING DATE: 08 09 96		CLOSED DOCUMENT AMT:	4,300.00
OVERPAYMENT CAUSE:		REPRINT BILL AMT:	0.00

DIVISION OF ACCOUNTING AND FINANCE
REQUEST FOR REFUND TO EMPLOYEE/VENDOR

AUG 2 0 1996

THE EMPLOYEE/VENDOR IDENTIFIED BELOW HAS OVERPAID THE NUCLEAR REGULATORY COMMISSION FOR GOODS AND/OR SERVICES PROVIDED AND IS DUE A REFUND

EMPLOYEE/VENDOR/PAYEE CODE: _____

NAME: PAPASTAVROS' ASSOCIATES MEDICAL IMAGING

ADDRESS: ATTN: GARTH A. KONIVER, M.D., F.A.C.R.

ADDRESS: 40 POLLY DRUMMOND HILL ROAD

CITY: NEWARK STATE: DE ZIP: 19711

TRANS CODE: PX

TRANS TYPE: FE	FUND: X5280	JOB CODE: _____	AMOUNT: $1,400.00
TRANS TYPE: IR	FUND: R1435	JOB CODE: INTR	AMOUNT: _____
TRANS TYPE: IR	FUND: R1099	JOB CODE: ADCH	AMOUNT: _____
TRANS TYPE: IR	FUND: R1099	JOB CODE: FINE	AMOUNT: _____

TOTAL REFUND AMOUNT: $1,400.00

COMMENTS: LIC 07-16529-01/CR 8839/REN FEE REF

(limit comments to 40 characters, including spaces)

PREPARED BY: Brenda Brown DATE: 8/19/96

AUTHORIZED BY: Gordon Kunitsky DATE: 8/20/96

ORIGINAL INV. NO: _____ DATE PAID: _____ AMOUNT: _____

REFUND ENTERED INTO COLLECT BY: _____

REFUND DETERMINED BY: _____ DATE: _____

PLEASE ATTACH APPROPRIATE SUPPORTING DOCUMENTATION

J(96)
June 15
APPL DTD 6/4/96
TC REN FEE SUBMITTED
NO CHARGE FOR REN FEE
IS DUE
(123321)

(Remainder $430 applied to 123320)

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 02200
STATUS CODE: 2
FEE CATEGORY: 7C
EXP. DATE: 19960731
FEE COMMENTS: _____
DECOM FIN ASSUR REQD: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: PAPASTAVROS' ASSOC. MEDICAL IMAGING
RECEIVED DATE: 960610
DOCKET NO: 3011379
CONTROL NO.: 123321
LICENSE NO.: 07-16529-01
ACTION TYPE: RENEWAL

2. FEE ATTACHED
AMOUNT: ---/---
CHECK NO.: ---/---

3. COMMENTS
Reference Amendment 123320

SIGNED Rebecca J. Brown
DATE 6/13/96

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

1. FEE CATEGORY AND AMOUNT: 7C No fee collected for renewal $1,400 Refunded 8/15/96

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

3. OTHER _____

SIGNED _____
DATE _____

I (94)
Log June 15
Remitter RADIOLOGY ASSOCIATES, INC.
Check No. 8839
Amount $1,830 $1400 Refunded (Annual fee)
Fee Category 7C $430 applied to next control
Type of Fee RCN 123320 +
Other Check Rec'd
Completed 8/15/96
By BB

Refunded $1,400 Annual fee invoice Amt 4351-96 is paid in full.

License called wanted to send renewal for 1 NRC outside region then refund it.

8/14/96 Check removed from NRC no longer fee charges for renewals. Refund being processed.

$1830.00.