

# ESSEX RADIOLOGICAL ASSOCIATES, Inc.

212 BOSTON STREET

LYNN, MASSACHUSETTS 01904

F. J. BARGOOT, M.D.  
K. BASSION, M.D.  
L. BOURAS, M.D.  
P. KOCH-WESER, M.D.  
H. LEVENTHAL, M.D.  
P. REVENO, M.D.  
L. SAVAGE, M.D.  
C. SEMINE, M.D.  
D. WASSERMAN, M.D.  
H. WEINTRAUB, M.D.

$L + L = 20978$   
030-22178

February 5, 1986

RECEIVED  
FEB 14 09:51  
U.S. NUCLEAR  
COMMISSION  
FEE MGMT. BRANCH

Dr. John Glenn  
U. S. Nuclear Regulatory Commission  
Nuclear Materials and Safeguards Branch  
Region I  
King of Prussia, Pennsylvania 19406

Dear Dr. Glenn:

This letter is to request a private practice Nuclear Medicine license issued to the Essex Radiological Associates, Inc. The address is North Shore Imaging and Women's Diagnostic Center, 530 Loring Ave. Salem, MA. 01970 (Tel. 617-741-4400).

To Include: 1. The use of Gd-153 for bone mineral scanning.

One of the following sealed sources will be used in Lunar Device DP3, NRC device registration number NR-430-D-101-S:

Element and Mass Number	Clerical and/or Physical Form	Manufacturer and Model Number	Amount
153-Gd	Gd O <sub>2</sub>	(1) Gulf Nuclear Model GD-1	1500mCi each
Applicant <u>John Glenn</u>		(2) Amersham Model GDC.CYI	
Check No. <u>5444</u>		(3) New England Nuclear Model NER-430	
Amount/Fee Category <u>\$ 580 (7C)</u>			
Type of Fee <u>APP</u>			
Date Check Rec'd <u>2/14/86</u>			
Received By <u>SK</u>			

\*NOTE 1\*

NOTE 1: or any equivalent registered sealed source (any G D series source).

Each Lunar mineral analyzer is installed by qualified Lunar personnel who provide two days of installation and training. This training covers

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REG1 LIC30  
20-20978-01 PDR

FEB 11 1986

"OFFICIAL RECORD COPY"

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source installation and exchanges, leak testing, scan operations, and data analysis and interpretation. The institutions Radiation Safety Officer must be present for instruction on source replacement and leak testing.

2. Calibration of Survey Instruments will be performed by Nuclear Instrument Company, Rockland, MA,, per attached. The Survey Instrument in use will be an Eberline E-520.

3. The use of Siemens Gammasonics, Inc., Health Physics Services, 2000 Nuclear Drive, Des Plaines, Illinois 60018, to count Sealed Source Leak Test wipes per NRC License #12-00369-01.

4. The individual users will be:

Herbert H. Leventhal, M.D.  
 Ferris J. Bargoot, M.D.  
 Leonard Bouras, M.D.  
 Kenneth Bassion, M.D.  
 Dean Wasserman, M.D.  
 Harold Weintraub, M.D.  
 Magdi Christian Semine, M.D.  
 Peter T. Koch-Weser, M.D.

5. The room where the bone mineral analyzer is placed will be kept locked and secured at all times when unattended.

Sincerely,

*Herbert H. Leventhal, M.D.*  
 Herbert H. Leventhal, M.D.

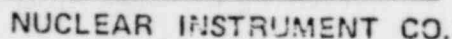
*F. John Bargoot Jr., M.D.*  
 F. John Bargoot Jr., M.D.

*Leonard Bouras, M.D.*  
 Leonard Bouras, M.D.

*Kenneth Bassion, M.D.*  
 Kenneth Bassion, M.D.

*Dean R. Wasserman, M.D.*  
 Dean Wasserman, M.D.

*Peter T. Koch-Weser, M.D.*  
 Peter T. Koch-Weser, M.D.  
*Harold Weintraub, M.D.*  
 Harold Weintraub, M.D.  
*Magdi Christian Semine, M.D.*  
 Magdi Christian Semine, M.D.



# Calibration Certificate

Probe Type End window

Serial No. \_\_\_\_\_

Calibration Date 12-17-84

Cesium 137 **E**  
100 mCi.  
28.5  
30214  
10-8-79

Calibration Source(s)

$E$

$$\boxed{E}$$

50

Remarks: \_\_\_\_\_

Calibrated by: [Signature]

NUCLEAR  $\gamma$  radiation detection products / instrument services / accessories / supplies

# CALIBRATION OF SURVEY INSTRUMENTS

Check appropriate items.

☒ 1. Survey instruments will be calibrated at least annually and following repair.

☒ 2. Calibration will be performed at two points on each scale used for radiation protection purposes, i.e., at least one to 1 R/hr.

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

3. Survey instruments will be calibrated

☐ a. By the manufacturer

☐ b. At the licensee's facility

(1) Calibration source

Manufacturer's name \_\_\_\_\_

Model no. \_\_\_\_\_

Activity in millicuries \_\_\_\_\_

or

Exposure rate at a specified distance \_\_\_\_\_

Accuracy \_\_\_\_\_

Traceability to primary standard \_\_\_\_\_

☐ (2) The calibration procedures in Section I of Appendix D will be used  
or

☐ (3) The step-by-step procedures, including radiation safety procedures, are attached.

☒ c. By a consultant or outside firm

(1) Name Nuclear Instrument Company

(2) Location 65 Grove Street, Rockland, Massachusetts

(3) Procedures and sources

☒ have been approved by NRC and are on file in License No. 20-16972-01

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

☒ the attached "Certificate of Instrument Calibration,"

☐ the consultant's reporting form as attached.

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

☐ the attached "Certificate of Instrument Calibration,"

☐ the consultant's reporting form as attached.

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number 20-13396-01

Docket or Reference number  
030-01961

Amendment No. 20

Hunt Memorial Hospital  
75 Lindall Street  
Danvers, Massachusetts 01923

In accordance with letters dated June 15, 1983, and October 11, 1983, License Number 20-13396-01 is amended as follows:

Conditions 12. and 19. are amended to read:

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

Philip S. Rane, M.D.

Groups I, II, and III

In vitro studies

Iodine 131 for treatment of hyperthyroidism,  
cardiac dysfunction, and thyroid carcinoma

Joseph M. Baldwin, M.D.

Groups I, II, and III

In vitro studies

Iodine 131 for treatment of hyperthyroidism,  
and cardiac dysfunction

Phosphorus 32 as soluble phosphate for  
treatment of polycythemia vera, leukemia,  
and bone metastases

Thomas J. Lapine, M.D.

Groups I, II, and III

In vitro studies

Steven R. Geary, M.D.

Groups I, II, and III

In vitro studies

Peter T. Koch-Weser, M.D.

Groups I, II, and III

In vitro studies

Iodine 131 for treatment of hyperthyroidism,  
cardiac dysfunction, and thyroid carcinoma

Philip E. Steeves, M.D.

Groups I and II

In vitro studies

Wallace A. Jones, M.D.

Licensed material of the types, quantities and  
forms specified in Section 31.11(a) of 10 CFR  
31 for use in accordance with the provisions  
of paragraphs (a), (c) and (d) of Section 31.11,  
10 CFR 31

John C. Clapp, M.D.

Technetium-99m radiopharmaceuticals in Groups  
II and III



MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number

20-03339-02

Docket or Reference number

030-01861

Amendment No. 47

(Continued)

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

Ferris J. Bargoöt, M.D.

Groups I, II, III, IV, V and VI  
In vitro studies  
Xenon 133  
Depleted Uranium as shielding

Herbert Leventhal, M.D.

Groups I, II, III, IV, V and VI  
In vitro studies  
Xenon 133  
Depleted Uranium as shielding

Harry G. Olken, M.D.

Groups I, II, III, IV and V  
In vitro studies  
Xenon 133

Leonard Bouras, M.D.

Groups I, II, III and IV  
In vitro studies  
Xenon 133

Howard Rotner, M.D.

Groups I, II, III, IV and V  
In vitro studies  
Xenon 133

E. Mei Shen, M.D.

Groups I, II, III, IV and V  
In vitro studies  
Xenon 133

Polius Raslavicus, M.D.

Groups I, II, III, IV and V  
In vitro studies  
Xenon 133

Kenneth Bassion, M.D.

Groups I, II, III, IV and V  
In vitro studies  
Xenon 133

Dean Wasserman, M.D.

Groups I, II, III and IV  
In vitro studies  
Xenon 133

Harold Weintraub, M.D.

Groups I, II and III  
In vitro studies  
Xenon 133

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number

20-03339-02

Docket or Reference number

030-01861

Amendment No. 47

(Continued)

Magdi Christian Semine, M.D.

Groups I, II and III  
In vitro studies  
Xenon 133

Sheldon Cooperman, M.D.

Groups I, II and III  
In vitro studies  
Xenon 133  
Iodine 131 for treatment of  
hyperthyroidism and cardiac  
dysfunction

Khalid M. Butt, M.D.

Groups I, II and III  
In vitro studies  
Xenon 133

13. Licensed material shall be used in accordance with the provisions of Section 35.14(b)(c)(e) and (f) of Title 10, Code of Federal Regulations.
14. For a period not to exceed sixty (60) days in any calendar year, a visiting physician is authorized to use licensed material for human use under the terms of this license, provided the visiting physician:
- (a) Has the prior written permission of the hospital's Administrator and its Medical Isotopes Committee, and
  - (b) Is specifically named as a user on a Nuclear Regulatory Commission license authorizing human use, and
  - (c) Performs only those procedures for which he is specifically authorized by a Nuclear Regulatory Commission license.

The licensee shall maintain for the inspection by the Commission, copies of the written permission specified in subitem (a) above and of the license(s) specified in subitems (b) and (c) above. These records shall be maintained for five (5) years from the time the licensee grants its permission under subitem (a) above.

15. Sealed sources containing licensed material shall not be opened.
16. Patients containing Iodine 131 for the treatment of thyroid carcinoma shall remain hospitalized until the residual activity is 30 millicuries or less.

BEERHEEN: William O. Miller, Chief  
License Fee Management Branch  
Office of Administration

03022178

John E. Glenn, Chief  
Nuclear Materials Section B  
Division of Engineering and  
Technical Programs

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee:

Essex Radiological Associates, Inc.

Application Dated:

February 5, 1986

Control No.:

105044

License No.:

NEW

2. FEE ATTACHED

Amount:

\$580.

Check No.:

5444

3. COMMENTS

Signed

ejm

Date

2/12/86

B. LICENSE FEE MANAGEMENT BRANCH

1. Fee Category and Amount:

7C

2. Correct Fee Paid. Application may be processed for:

Amendment

✓

Renewal

License

Signed

G Jackson

Date

2/18/86