



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 7, 1996

RESEARCH MEDICAL CENTER
ATTN: Dr. ED CYTACKI, PH.D.
Radiation Safety Officer
DEPT. OF RADIATION ONCOLOGY
2316 EAST MEYER BOULEVARD
KANSAS CITY, MO 64132

SUBJECT: ONE-TIME EXTENSION OF LICENSE EXPIRATION DATE
LICENSE NUMBER 24-18625-01, DOCKET NUMBER 3013959

Dear Dr. ED CYTACKI, PH.D.

On January 16, 1996, the Nuclear Regulatory Commission (NRC) amended its regulations in 10 CFR 30, 40, and 70 to extend the expiration date of certain byproduct, source, and special nuclear material licenses by five years (51 FR 1109). The above referenced license was extended by this rulemaking and will now expire on September 30, 2000. Your license will not be amended to show this extended date until the next routine licensing action. Until then, you may provide copies of this letter to vendors and other interested parties as evidence that the license has been extended as a result of the rule.

The extended license authorizes the same activities and contains the same limitations as it previously did. There will be no change in the frequency that the NRC inspects activities authorized by this license.

The amended rules state that in the case of licensees who are granted extensions and who have a currently pending renewal application for that extended license, the application will be considered withdrawn by the licensee and any renewal fees paid by the licensee for that application will be refunded. This will apply to licenses with expiration dates after July 1, 1995, for which renewal applications and the appropriate fees have been submitted and the renewal is still pending. Refunds will be mailed to licensees under separate cover.

All licensees, including those whose renewal applications were withdrawn by this rulemaking, who wish to change their radiation safety programs must request amendment of their licenses to reflect these changes. Amendment requests must include the correct amendment fee since the NRC cannot apply pending renewal refund balances toward amendment fees.

If you have any questions regarding this letter, please contact the individual below.

John R. Madera, Division of Nuclear Materials Safety - (708) 829-9834

Thank you for your cooperation in this matter.

Sincerely,

Donald A. Cool, Director
Division of Industrial and Medical Nuclear Safety
Office of Nuclear Materials Safety and Safeguards

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NRC FORM 374
(2-7-88)

U.S. NUCLEAR REGULATORY COMMISSION

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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, 39, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee

1. Research Medical Center
2. 2316 East Meyer Boulevard
Kansas City, MO 64132

In accordance with letter dated
October 8, 1993

3. License number 24-18625-01 is amended in
its entirety to read as follows:

4. Expiration date September 30, 1995

5. Docket or
Reference No. 030-13959

6. Byproduct, source, and/or
special nuclear material

7. Chemical and/or physical
form

8. Maximum amount that licensee
may possess at any one time
under this license

A. Any byproduct
material identified
in 10 CFR 35.100

Any
radioactive material
identified in 10 CFR
35.100

A. As needed

B. Any byproduct
material identified
in 10 CFR 35.200

B. As needed

C. Any byproduct
material identified
in 10 CFR 35.300

Any
radioactive material
identified in 10 CFR
35.300

As needed
(not to exceed
1 curie of I-131)

D. Any byproduct
material identified
in 10 CFR 35.400

D. Any brachytherapy
source identified in
10 CFR 35.400

D. As needed

E. Any byproduct
material identified
in 10 CFR 35.500

E. Sealed sources
identified in
10 CFR 35.500

E. As needed

F. Any byproduct
material identified
in 10 CFR 31.11

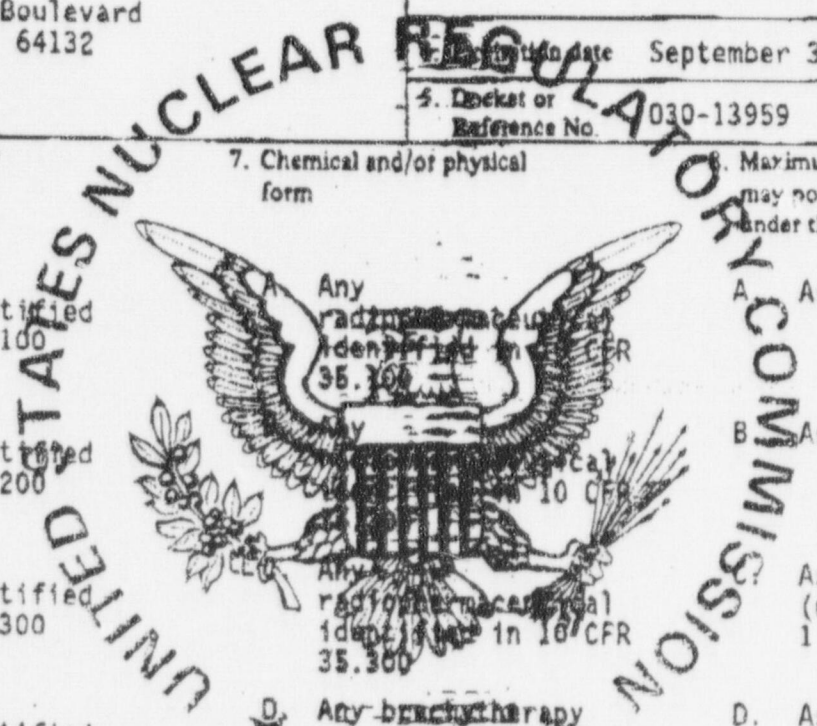
F. Prepackaged Kits

F. As needed

G. Uranium depleted in
Uranium-235

G. Cadmium plated metal

G. As needed



Form 374A

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number

24-18625-01

Casket or Reference number

030-13959

Amendment No. 19

6. Byproduct, source, and/or special nuclear material
7. Chemical and/or physical form
8. Maximum amount that licensee may possess at any one time under this license

H. Cesium-137

H. Sealed sources

H. 110 millicuries

I. Iridium-192

I. Sealed sources
(BYK Mallinckrodt
Model CILBV)

I. Two sources not to
exceed 10 curies
each

9. Authorized Use:

- A. Medical use described in 10 CFR 35.100
- B. Medical use described in 10 CFR 35.100
- C. Medical use described in 10 CFR 35.100
- D. Medical use described in 10 CFR 35.100
- E. Medical use described in 10 CFR 35.500 in devices which have been evaluated and approved for licensing purposes by the U.S. Nuclear Regulatory Commission or an Agreement State.
- F. In vitro studies.
- G. Shielding in a linear accelerator.
- H. To be used for storage only in an EOM Corp. Model MRC-794 instrument calibrator.
- I. One source to be used in a Nucletron Corporation MicroSelectron-HDR remote afterloading brachytherapy unit for interstitial and intracavitary radiotherapy. One source in its shipping container to be in possession of the licensee as necessary for replacement of the source in the irradiation device.

CONDITIONS

10. Location of Use: 2316 E. Meyer Boulevard, Kansas City, Missouri.
11. Radiation Safety Officer: Ed Cytacki, Ph.D.

Form 374A
(2-84)

U. S. NUCLEAR REGULATORY COMMISSION

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

24-18625-01

Docket or Reference number

030-13959

Amendment No. 19

12. Authorized Users:

- A. Walter G. Dukstein, M.D., for material in 10 CFR 35.100, 35.200, 35.300, 35.500 and 31.11.
- B. Barry A. Gubin, M.D., for material in 10 CFR 35.100, 35.200, 35.300 and 35.500.
- C. Ben J. Throne, M.D., for material in 10 CFR 35.300, 35.400 and iridium-192 in remote afterloading brachytherapy unit.
- D. Jorge C. Paradelo, M.D., for material in 10 CFR 35.400 and iridium-192 in remote afterloading brachytherapy unit.
- E. Earlene Wallis, M.D., for material in 10 CFR 35.400 and iridium-192 in remote afterloading brachytherapy unit.
- F. Ed Cytacki, M.D., for cesium-137 in instrument calibrator.
- G. David R. Ruskey, M.D., for material in 10 CFR 35.100, 35.200, 35.300 and 35.500.
- H. Mark E. Idstrom, M.D., for material in 10 CFR 35.100, 35.200, 35.300 and 35.500.
- I. Vickie Lea Massey, M.D., for material in 10 CFR 35.400 and iridium-192 in remote afterloading brachytherapy unit.
- J. Gayle P. Miller, M.D., for material in 10 CFR 35.300, 35.400 and iridium-192 in remote afterloading brachytherapy unit.
- K. Timothy Blackburn, M.D., for material in 10 CFR 35.200 limited to cardiovascular clinical procedures.
- L. Scott C. Cozad, M.D., for material in 10 CFR 35.400 and iridium-192 in remote afterloading brachytherapy unit.
- M. Jeffrey Kunin, M.D., for material in 10 CFR 35.100, 35.200 and 35.500.

13. Pursuant to Title 10, Chapter 1, Code of Federal Regulations, Part 40, "Domestic Licensing of Source Material," the licensee is authorized to possess, use, transfer, and import up to 999 kilograms of depleted uranium contained as shielding material in the molybdenum-99/technetium-99m generators authorized by this license.
14. The licensee shall maintain records of information important to safe and effective decommissioning at Research Medical Center, 2316 East Meyer Boulevard, Kansas City, Missouri per the provisions of 10 CFR 30.35 (g) until this license is terminated by the Commission.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

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Docket or Reference number

030-13959

Amendment No. 19

15. 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 20.35(d) for establishing decommissioning financial assurance.
16. A. (1) The source(s) specified in Item 7.I. shall be tested for leakage and/or contamination at intervals not to exceed six months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within six months before the transfer shall not be put into use until tested.
- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma-emitting material or 10 microcuries or less of alpha-emitting material.
17. A. Access to the room housing the MicroSelectron HDR irradiation device shall be controlled by a door at each entrance.
- B. The entrance to the irradiation room shall be equipped with an electrical interlock system that will force the source to return to the shielded position immediately upon opening of the entrance door. The interlock system shall be connected in such a manner that the source cannot be placed in the irradiation position until the entrance door is closed and the source "on-off" control is reset at the control panel.
- C. Electrical interlocks on the entrance door to the irradiator room shall be tested for proper operation at least once a month. Records of test results shall be maintained for inspection by the Commission.
- D. In the event of malfunction of the door interlock, the irradiation device shall be locked in the "off" condition and not used, except as may be necessary for repair or replacement of the interlock system, until the interlock system is shown to be functioning properly.
18. Prior to initiation of a treatment program, and subsequent to each source exchange for the MicroSelectron-HDR, radiation surveys and tests shall be performed in accordance with the following:
- A. A radiation survey shall be made of:
- (1) The irradiator source housing, with the source in the shielded position. The maximum radiation levels at 100 centimeters from the surface of the source head shall not exceed 0.25 milliroentgens per hour.

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License number

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Docket or Reference number

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Amendment No. 19

18. (Continued)

(2) All areas adjacent to the treatment room with the source in the "irradiation" position. The survey shall clearly establish:

- (a) That radiation levels in restricted areas are not likely to cause personnel exposure in excess of the limits specified in Section 20.101, Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standard for Protection Against Radiation" (10 CFR 20).
- (b) That quantities of radiation in unrestricted areas do not exceed the limits specified in Section 20.105(b) 10 CFR 20.

B. Records of survey results shall be maintained for inspection by the Commission.

19. The following shall be performed only by persons specifically authorized by the Commission or an Agreement State to perform such services:

- A. Installation and replacement of sources contained in the MicroSelectron-HDR irradiation device.
- B. Any maintenance or repair operation on the radiator involving work on the source head, the source driving unit or other mechanism that could expose the source, reduce the shielding around the source, or compromise the safety of the unit and result in increased radiation levels.

20. This license is based on the licensee's statements and representations listed below:

A. Application dated May 23, 1990; and

B. Letters dated March 9, 1991, April 23, 1991, July 30, 1991, December 4, 1991 (with attachments), December 5, 1991, September 4, 1992, November 18, 1992, January 11, 1993 (with attachments), July 15, 1993, October 8, 1993, October 19, 1993 (regarding signature authorization) and October 19, 1993 (regarding radiation surveys).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date OCT 28 1993

By

Deborah A. Piskura
Hate's Licensing Section, Region III

MAY 8 '97 14:16 FROM LH RADIOLOGY

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NRC FORM 374
(10-89)

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 1 OF 3 PAGES

MATERIALS LICENSE

Amendment No. 39
CORRECTED COPY

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

Licensee

1. Trinity Lutheran Hospital
Department of Radiology
2. 3030 Baltimore
Kansas City, MO 64108

In accordance with application dated
October 1, 1993

3. License number 24-00624-02 is amended in
its entirety as follows:

4. Expiration date March 31, 1999

5. Docket or
Reference No. 030-02280

6. Byproduct, source, and/or
special nuclear material

7. Chemical and/or physical
form

8. Maximum amount that licensee
may possess at any one time
under this license

- A. Any byproduct
material identified
in 10 CFR 35.100

- A. Any
radiopharmaceutical
identified in 10 CFR
35.100

A. As needed

- B. Any byproduct
material identified
in 10 CFR 35.200

- B. Any
radiopharmaceutical
identified in 10 CFR
35.200 (excluding
aerosols)

B. As needed

- C. Any byproduct
material identified
in 10 CFR 35.300

- C. Any
radiopharmaceutical
identified in 10 CFR
35.300

As needed

- D. Any byproduct
material identified
in 10 CFR 35.400

- D. Any brachytherapy
sources identified
in 10 CFR 35.400

D. As needed

- E. Any byproduct
material identified
in 10 CFR 35.500

- E. Sealed sources
identified in 10 CFR
35.500

E. As needed

- F. Any byproduct
material identified
in 10 CFR 31.11

- F. Prepackaged Kits

F. As needed

- G. Uranium depleted in
Uranium-235

- G. Cadmium plated metal

G. As needed

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MAY 8 '97 14:16 FROM JH RADIOLOGY

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(5-84)

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 2 OF 3 PAGES

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

24-00624-02

Docket or Reference number

030-02280

Amendment No. 39

CORRECTED COPY

9. Authorized Use:

- A. Medical use described in 10 CFR 35.100.
- B. Medical use described in 10 CFR 35.200 (excluding aerosols).
- C. Medical use described in 10 CFR 35.300.
- D. Medical use described in 10 CFR 35.400.
- E. Medical use described in 10 CFR 35.500 in devices which have been evaluated and approved for licensing purposes by the U.S. Nuclear Regulatory Commission or an Agreement State.
- F. In vitro studies.
- G. Shielding in a linear accelerator.

CONDITIONS

- 10. Licensed material shall be used only at the licensee's facilities located at 3030 Baltimore, Kansas City, Missouri.
- 11. Radiation Safety Officer: Timothy D. Kennedy, M.D.
- 12. Authorized Users:
 - A. R. J. Meegan, M.D., for material in 35.100, 35.200, 31.11 and 35.500.
 - B. Joseph J. Goetz, M.D., for material in 35.100, 35.200, 31.11 and 35.500.
 - C. Timothy D. Kennedy, M.D., for material in 35.100, 35.200, 35.300, 31.11 and 35.500.
 - D. David G. Wood, M.D., for material in 35.100, 35.200, 35.300, 31.11 and 35.500.
 - E. Howard M. Clogman, M.D., for material in 35.100, 35.200, 35.300, 31.11 and 35.500.
 - F. Michael A. Montgomery, M.D., for material in 35.200 for cardiovascular clinical procedures.
 - G. G. Donald Stillie, D.O., for material in 35.400.
 - H. Robert E. Stephenson, M.D., for material in 35.100, 35.200, 35.300, 31.11 and 35.500.

MAY 8 '97 14:17 FROM LH RADIOLOGY

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(5-84)

U.S. NUCLEAR REGULATORY COMMISSION

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

24-00624-02

Docket or Reference number

030-02280

Amendment No. 39

CORRECTED COPY

12. Authorized Users (Continued)


- I. Ben J. Throne, M.D., for material in 35.300 and 35.400.
 - J. Jorge C. Paradelo, M.D., for material in 35.400.
 - K. Susanne Chow, M.D., for material in 35.100, 35.200, 31.11 and 35.300.
 - L. Vickey Lee Massey, for material in 35.400.
 - M. Max S. Laguerre, M.D., for material in 35.400.
 - N. Scott C. Cozad, M.D., for material in 35.400 and phosphorus-32 for intracavitary treatment of malignant effusions.
 - O. W. B. Davis, M.D., for material in 35.100, 35.200, 35.500 and 31.11.
 - P. Richard Folke, M.D., for material in 35.100, 35.200 and 31.11.
 - Q. Donald Stallard, M.D., for material in 35.100, 35.200 and 31.11.
 - R. Jay S. Robinson, M.D., for material in 35.300 and 35.400.
 - S. Charles E. Bruso, M.D., for material in 35.400 and 35.500.
 - T. Vickie Lea Massey, M.D., for material in 35.300 and 35.400.
13. Pursuant to 10 CFR Part 40, "Domestic Licensing of Source Material," the licensee is authorized to possess, use, transfer, and import up to 999 kilograms of depleted uranium contained as shielding material.
14. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below, except for minor changes in the medical use radiation safety procedures as provided in 10 CFR 35.31. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated October 1, 1993.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date

4-18-94

By



Materials Licensing Section, Region III

NRC FORM 374
(10-89)

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 1 OF 3 PAGES

Amendment No. 39
CORRECTED COPY

MATERIALS LICENSE

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

Licensee

1. Trinity Lutheran Hospital
Department of Radiology
2. 3030 Baltimore
Kansas City, MO 64108

In accordance with application dated
October 1, 1993

3. License number 24-00624-02 is amended in its entirety as follows:

4. Expiration date March 31, 1999

5. Docket or
Reference No. 030-02280

6. Byproduct, source, and/or
special nuclear material

7. Chemical and/or physical
form

8. Maximum amount that licensee
may possess at any one time
under this license

- A. Any byproduct
material identified
in 10 CFR 35.100

A. Any
radiopharmaceutical
identified in 10 CFR
35.100

A. As needed

- B. Any byproduct
material identified
in 10 CFR 35.200

B. Any
radiopharmaceutical
identified in 10 CFR
35.200 including
aerosols

B. As needed

- C. Any byproduct
material identified
in 10 CFR 35.300

C. Any
radiopharmaceutical
identified in 10 CFR
35.300

C. As needed

- D. Any byproduct
material identified
in 10 CFR 35.400

D. Any brachytherapy
sources identified
in 10 CFR 35.400

D. As needed

- E. Any byproduct
material identified
in 10 CFR 35.500

E. Sealed sources
identified in 10 CFR
35.500

E. As needed

- F. Any byproduct
material identified
in 10 CFR 31.11

F. Prepackaged Kits

F. As needed

- G. Uranium depleted in
Uranium-235

G. Cadmium plated metal

G. As needed

9405120131 3 p.

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(5-84)

U.S. NUCLEAR REGULATORY COMMISSION

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

24-00624-02

Docket or Reference number

030-02280

Amendment No. 39

CORRECTED COPY

12. Authorized Users (Continued)

- I. Ben J. Throne, M.D., for material in 35.300 and 35.400.
- J. Jorge C. Paradelo, M.D., for material in 35.400.
- K. Susanne Chow, M.D., for material in 35.100, 35.200, 31.11 and 35.300.
- L. Vickey Lee Massey, for material in 35.400.
- M. Max S. Laguerre, M.D., for material in 35.400.
- N. Scott C. Cozad, M.D., for material in 35.400 and phosphorus-32 for intracavitary treatment of malignant effusions.
- O. W. B. Davis, M.D., for material in 35.100, 35.200, 35.500 and 31.11.
- P. Richard Folke, M.D., for material in 35.100, 35.200 and 31.11.
- Q. Donald Stallard, M.D., for material in 35.100, 35.200 and 31.11.
- R. Jay S. Robinow, M.D., for material in 35.300 and 35.400.
- S. Charles E. Brusco, M.D., for material in 35.400 and 35.500.
- T. Vickie Lea Massey, M.D., for material in 35.300 and 35.400.
13. Pursuant to 10 CFR Part 40, "Domestic Licensing of Source Material," the licensee is authorized to possess, use, transfer, and import up to 999 kilograms of depleted uranium contained as shielding material.
14. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below, except for minor changes in the medical use radiation safety procedures as provided in 10 CFR 35.31. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

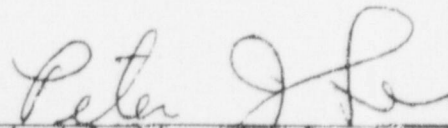
A. Application dated October 1, 1993.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date

4-18-94

By



Materials Licensing Section, Region I.

RAY COUNTY MEMORIAL HOSPITAL
904 WOLLARD BLVD.
RICHMOND, MISSOURI 64085

Mercantile Bank of Missouri Valley
Richmond, Missouri 64085

012575

80-661
1019

PAY
TO THE
ORDER
OF

*****\$450DOLLARS*****

CENTS

DATE
12/1/98

AMOUNT

\$450.00

US NUCLEAR REGULATORY COMMISSION
801 WARRENVILLE ROAD
LISLE, IL 60532-4351

RAY COUNTY MEMORIAL HOSPITAL
VOID AFTER 90 DAYS

Jimmy Hicks
SIGNATURE

E. Brooks
SIGNATURE

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