

## MATERIALS LICENSE

Amendment No. 37

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.

301946

## Licensee

1. St. Luke's Hospital  
Department of Radiology, Medicine  
and Gynecology
2. 232 South Woods Mill Road  
Chesterfield, MO 63017

In accordance with letter dated  
September 16, 1996

3. License Number 24-01570-03 is amended  
in its entirety to read as follows:

4. Expiration Date December 31, 2000

5. Docket or  
Reference No. 030-02305

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

- 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  
source identified in  
10 CFR 35.400

- D. As needed

- E. Uranium depleted in  
Uranium-235

- E. Cadmium plated metal

- E. As needed

- F. Iridium-192

- F. Brachytherapy source  
wire (RADS, Inc.  
Model SL-771)

- F. Not to exceed 200  
millicuries per  
implant device.  
Total possession  
not to exceed 1  
curie.

- G. Iridium-192

- G. Sealed sources (BYK  
Mallinckrodt Model  
CI L BV)

- G. 2 sources not to  
exceed 10 curies  
each.

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

24-01570-03

Docket or Reference Number

030-02305

Amendment No. 37

9. Authorized Use:
- A. Medical use described in 10 CFR 35.100.
  - B. Medical use described in 10 CFR 35.200.
  - C. Medical use described in 10 CFR 35.300.
  - D. Medical use described in 10 CFR 35.400.
  - E. Shielding in a linear accelerator.
  - F. To be used for interstitial treatment of cancer.
  - G. One source to be used in a Nucletron Corporation MicroSelectron-HDR remote afterloading brachytherapy unit for interstitial, intracavitary, and bronchial radiotherapy. One source to be stored in its shipping container incident to source exchange.

CONDITIONS

- 10. Location of Use: 232 South Woods Mill Road, Chesterfield, Missouri.
- 11. Radiation Safety Officer: Eric Daniel Slessinger
- 12. Authorized Users:
  - A. Sumner Holtz, M.D., for material in 10 CFR 35.100, 35.200, 35.300, 35.400, iridium-192 wire, and iridium-192 in remote afterloading brachytherapy unit.
  - B. Thomas F. Egan, M.D., for material in 10 CFR 35.100, 35.200, 35.300, 35.400, iridium-192 wire, and iridium-192 in remote afterloading brachytherapy unit.
  - C. Naris Rujanavech, M.D., for material in 10 CFR 35.100 and 35.200.
  - D. Inta Berzins, M.D., for material in 10 CFR 35.100 and 35.200.
  - E. Karen J. Halverson, M.D., for material in 10 CFR 35.300 and 35.400, iridium-192 wire, and iridium-192 in remote afterloading brachytherapy unit.

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12. Authorized Users (Continued)

- F. David F. Butler, M.D., for material in 10 CFR 35.300 and 35.400, iridium-192 wire, and iridium-192 in remote afterloading brachytherapy unit.
- G. Charles F. Garvin, M.D., for material in 10 CFR 35.100 and 35.200.
- H. Albert E. Hesker, M.D., for material in 10 CFR 35.100 and 35.200.
- I. John J. Lang, M.D., for material in 10 CFR 35.100 and 35.200.
- J. Ben R. Mayes, M.D., for material in 10 CFR 35.100 and 35.200.
- K. Gary H. Omell, M.D., for material in 10 CFR 35.100 and 35.200.
- L. Philip J. Weyman, M.D., for material in 10 CFR 35.100 and 35.200.
- M. Mark S. Zobel, M.D., for material in 10 CFR 35.100 and 35.200.

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. A. (1) The source(s) specified in Item(s) 7.F. and 7.G., shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 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.

- B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

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- C. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, Illinois 60532-4351, ATTN: Chief, Nuclear Materials Safety Branch. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
15. Training of staff in use of licensed material specified in Subitem 7.G. shall be conducted by Nucletron Corporation personnel authorized by State of Maryland License No. MD-27-035-01 to conduct such training.
16. 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 cause 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.
17. 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:

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- (i) 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.
- (ii) 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 the survey results shall be maintained for inspection by the Commission.

18. 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 Selectron-HDR and MicroSelectron-HDR irradiation devices.

B. Any maintenance or repair operations on the irradiators 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.

19. The licensee shall maintain records of information important to safe and effective decommissioning at 232 South Woods Mill Road, Chesterfield, Missouri per the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.

20. 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(d) for establishing decommissioning financial assurance.

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

A. Letter dated August 22, 1990 (with attachments); and

B. Letters dated August 9, 1985, December 6, 1985, March 18, 1986, September 9, 1987, October 26, 1987, April 18, 1988 (with attachments), May 25, 1990, October 18, 1993, March 8, 1995, April 24, 1995, September 16, 1996; and

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21. (Continued)

C. Telegram received September 10, 1987.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date

*January 14, 1997*

By

*Richard Watson*

Nuclear Materials Licensing Branch, Region III

COPY

BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

(FOR LFMS USE)  
INFORMATION FROM LTS

Program Code: 02230  
Status Code: 0  
Fee Category: 7C 2B  
Exp. Date: 20001231  
Fee Comments:  
Decom Fin Assur Req'd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: ST. LUKE'S HOSPITAL  
Received Date: 961015  
Docket No: 3002305  
Control No.: 301946  
License No.: 24-01570-03  
Action Type: Amendment

2. FEE ATTACHED

Amount: 430  
Check No.: 173453

3. COMMENTS

Signed  
Date

D. Hersey  
10-16-96

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / /)

1. Fee Category and Amount:

7C 2B

440

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

Amendment  
Renewal  
License

3. OTHER

Signed  
Date

SC  
2/5/97

1976 OCT 21 AM 11:41

Log	OCT 9 III
Remitter	
Check No.	173453 / 267661
Amount	430 + 10
Fee Category	7C 2B
Type of Fee	AND
Date Check Rec'd	10/21/96
Date Completed	2/5/97
By:	SC



**ST. LUKE'S HOSPITAL**  
EPISCOPAL-PRESBYTERIAN

September 16, 1996

Materials Licensing Section  
Region III  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, IL 60532-4351

Re: License # 24-01570-03

Dear Gentlemen:

This is a request for amendment to the specific license for St. Luke's Hospital.

The cesium room is being moved from the current location on 7600, to the HDR room in the Radiation Oncology department. A close-out inspection of the room will be performed on the room currently being used as the cesium room before it is released for use. A diagram of the proposed cesium room with location of the HDR unit and proposed location of the sealed source safes is included, along with a diagram indicating location of the HDR room with respect to the adjacent areas.

The HDR room has a single door which will remain locked except when under control of authorized personnel. The sealed source safes remains locked except during removal or return of sources.

Enclosed is a check for \$430 amendment fee.

If you have any questions regarding this amendment request, please contact me or Dr. George Oliver.

Sincerely,

Gary Olson  
Executive Vice President

**RECEIVED**  
**OCT 15 1996**  
**REGION III**

NRCAMD.996

*pm: 10-10-96*

*OCT 16 1996*  
*301946*

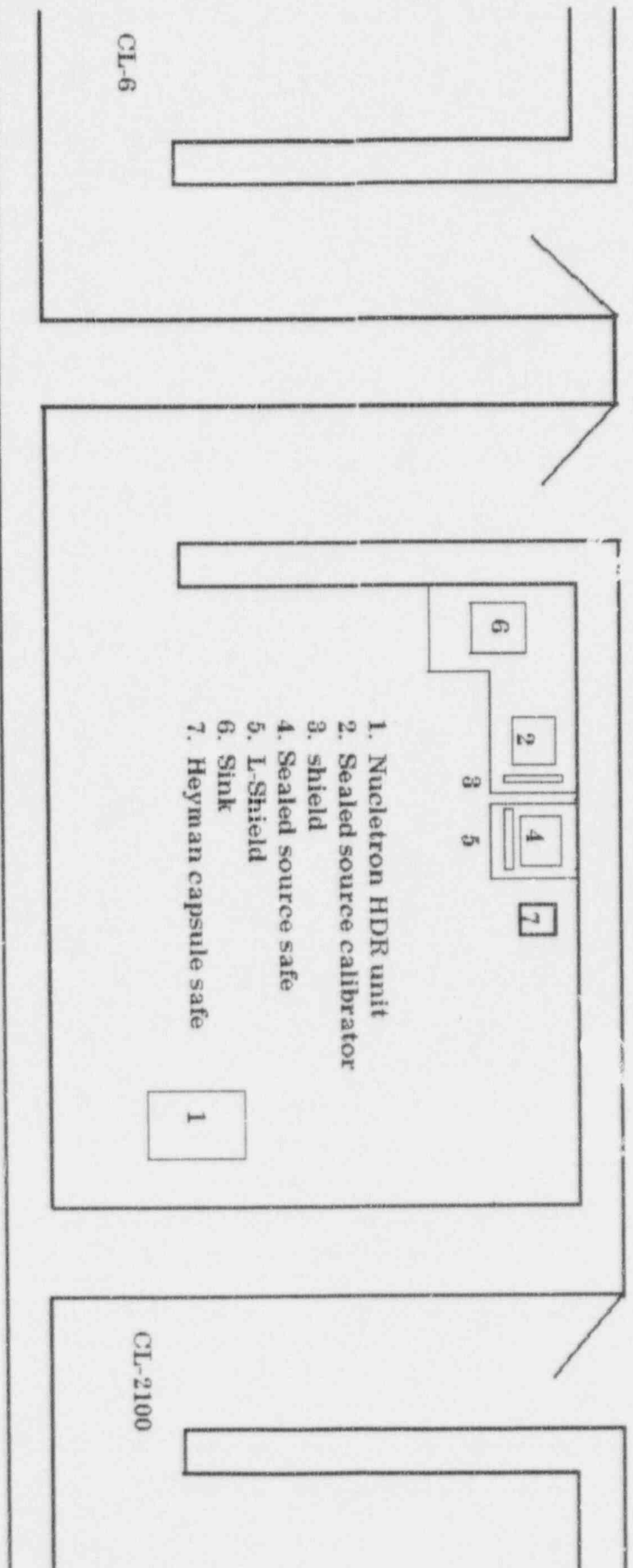
232 South Woods Mill Road • Chesterfield, Missouri 63017 • (314) 434-1500

St. Luke's Health Corporation • St. Luke's Development Corporation • St. Luke's Health Center/Wentzville • St. Luke's Urgent Care Center  
St. Luke's School of Nursing • Ambulatory Care Center • Affiliated Hospitals Dialysis Center • St. Andrew's Home Services • St. Luke's Breast Diagnostic Center



Restricted Area

Treatment control



Outside Wall

Unrestricted Area

## 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

ST. LUKE'S HOSPITAL  
ATTN: GARY OLSON  
EXECUTIVE VICE PRESIDENT  
232 SOUTH WOODS MILL ROAD

## TYPE OF ACTION

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

REQUESTED DATE

9-16-96

LICENSE NUMBER

24-01570-03

CONTROL NUMBER

301946

## 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	\$	\$	\$ 440.00
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$

FEE(S) DUE	\$	440.00
PAYMENT RECEIVED	\$	430.00
AMOUNT DUE	\$	10.00

☐ Your request was received without the prescribed application fee.

☒ We received your Check No. 173453 in the amount of \$ 430.00. 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.

SIGNATURE - LICENSE FEE ANALYST

LFDCB

LFDCB

Shirley Crutchfield  
SHIRLEY CRUTCHFIELD

10/23/96

Distribution: OC/DAF/RF  
Pending Fee File OC/DAF/SF(LF-3.2.7)  
LFARB R/F (2) Region 3

DATE

Oct. 23, 1996

JAN 15 1997

Gary Olson  
Executive Vice President  
St. Luke's Hospital  
Department of Radiology, Medicine  
and Gynecology  
232 South Woods Mill Road  
Chesterfield, MO 63017

Dear Mr. Olson:

Enclosed is Amendment No. 37 to your NRC Material License No. 24-01570-03 in accordance with your request.

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 III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please be advised that we cannot release your cesium room for unrestricted use until we have reviewed the results of your closeout survey. You may submit this information to Control No. 301946 with no additional fee.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been 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," and other applicable regulations.
2. Notify NRC, in writing, within 30 days:
  - a. When an authorized user or Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or
  - b. When the licensee's mailing address 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. 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 anyone, except individuals described in 10 CFR 35.13(b), to work as an authorized user under the license;
  - c. Change Radiation Safety Officers;
  - 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; or
  - f. Change ownership of your organization.
5. 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 certifying official rather than a consultant.

You will be periodically inspected by 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 Policy and Procedures for NRC Enforcement Actions. Since serious consequences

G. Olson

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to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action 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.

Sincerely,

Original Signed By  
Gidget Watson  
Nuclear Materials Licensing Branch

License No. 24-01570-03  
Docket No. 030-02305

Enclosure: Amendment No. 37

DOCUMENT NAME: M:\03002305.CL6

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" =  
Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/RIII								
NAME	GWatson:brt								
DATE	11/14/97 GW								





UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION III  
801 WARRENVILLE ROAD  
LISLE, ILLINOIS 60532-4351

October 22, 1996

George Oliver, Ph.D.  
Radiation Safety Officer  
St. Luke's Hospital  
Departments of Radiology, Medicine & Gynecology  
232 South Woods Mill Road  
Chesterfield, MO 63017

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE  
(Letter Dated 09/16/96)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

☐ New License                      ☒ Amendment                      ☐ Renewal  
☐ Termination                      ☐ Auth User (Amendment not required)  
☐ Other \_\_\_\_\_

No administrative deficiencies were identified during this initial review. However, it should be noted that a technical review may identify omissions in the submitted information.

It appears that your request is routine (see 1-3 below, as applicable).

1. New and amendment actions are normally processed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance.
2. Renewal actions are normally processed within 180 days, however, under timely filing (before expiration), you may continue to operate under your existing license.
3. Termination actions are normally processed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount, if required.

If you have a compelling safety or business-related reason for requesting expedited review, please contact the Materials Licensing Branch at (630) 829-9887. We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number.

Nuclear Materials Support Branch

Mail Control No. 301946  
License No. 24-01570-03