

## MATERIALS LICENSE

Amendment No. 01

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.

301843

## Licensee

In accordance with letter dated  
June 20, 19963. License Number 48-26708-01 is amended in  
its entirety to read as follows:

4. Expiration Date May 31, 2001

5. Docket or  
Reference No. 030-340936. Byproduct, Source, and/or  
Special Nuclear Material

A. Cesium-137

B. Barium-133

C. Cobalt-60

D. Cesium-137

7. Chemical and/or Physical  
FormA. Sealed sources  
(Tech/Ops (Amersham  
Corp.) Mo. 77302)B. Sealed sources  
manufactured and  
distributed by a  
person licensed  
pursuant to 10 CFR  
32.74 or equivalent  
Agreement State  
regulations.C. Sealed sources  
manufactured and  
distributed by a  
person licensed  
pursuant to 10 CFR  
32.74 or equivalent  
Agreement State  
regulations.D. Sealed sources  
manufactured and  
distributed by a  
person licensed  
pursuant to 10 CFR  
32.74 or equivalent  
Agreement State  
regulations.8. Maximum Amount that Licensee  
May Possess at Any One Time  
Under This LicenseA. 2 sources not  
to exceed 165  
millicuries eachB. No single source  
to exceed 500  
microcuriesC. No single source  
to exceed 500  
microcuriesD. No single source  
to exceed 500  
microcuries

10114

9610220146 960923  
PDR ADOCK 03034093  
C PDR

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2<sup>ML</sup>  
30  
50

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

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- |  |                                  |  |
|--|----------------------------------|--|
| 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 |
| E. Any byproduct material with Atomic Nos. 3-83, inclusive | E. Leak test samples             | E. See Item 9.E. below   |

9. Authorized Uses:

- A. One source to be used in a Tech/Ops (Amersham Corp.) Model 773 device for calibration of clients survey instruments and one source in its shipping container for source replacement.
- B. through D. To be used for determining the accuracy of clients dose calibrators.
- E. Possession incident to evaluation of leak/wipe test samples.

CONDITIONS

10. Licensed material may be used at the licensee's facilities located at 10403 West Feerick Place, Wauwatosa, Wisconsin and at temporary job sites of the licensee anywhere in the State of Wisconsin.
11. Licensed material shall be used only by David W. Palmer, Ph.D.
12. The Radiation Safety Officer for this license is David W. Palmer, Ph.D.
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.

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C. Sealed sources need not be leak tested if:

- (i) they contain only hydrogen-3; or
- (ii) they contain only a radioactive gas; or
- (iii) the half-life of the isotope is 30 days or less; or
- (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
- (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

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.

- 14. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
- 15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
- 16. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days for decay-in-storage before disposal in ordinary trash provided:
  - A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
  - B. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate survey meter set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

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- C. A record of each disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.
17. 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.
18. The licensee may not possess and use materials authorized in Items 6, 7, and 8 until:
- A. The licensee has constructed the facilities and obtained the equipment described in the application and supporting documentation; and
  - B. The U. S. Nuclear Regulatory Commission, Region III, ATTN: Chief, Materials Licensing Branch, 801 Warrenville Road, Lisle, IL 60532-4351 has been notified that activities authorized by the license will be initiated.
19. Within 30 days of the date of a decision not to complete the facility, acquire equipment, or possess and use authorized material, the licensee must notify the Commission in writing, of the decision.
20. Before initiation of a survey instrument calibration program, radiation surveys shall be performed in accordance with the following:
- A. A radiation survey shall be made of all restricted and unrestricted areas adjacent to the calibration room with the source in the "on" position. The survey shall be performed with a scattering medium in the primary beam of radiation that is similar to the chamber of a survey instrument being calibrated and shall clearly establish:
    - (1) That radiation levels in restricted areas are not likely to cause personnel exposure in excess of the limits specified in Section 20.1201 of 10 CFR Part 20.
    - (2) That radiation levels in unrestricted areas are not likely to cause members of the general public exposure in excess of the limits specified in Section 20.1301 of 10 CFR Part 20.

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- B. The licensee shall provide the results of the above surveys to the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, Illinois 60532 as an amendment to this license not more than 30 days after installation of the survey instrument calibrator.
21. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
22. 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. 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 March 15, 1996; and
- B. Letters dated April 15, 1996 (excluding reference made to the performance of linearity and geometric variation measurements of clients dose calibrators) and June 20, 1996.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date 9/23/96

By

James Mullauer  
Materials Licensing Branch, Region III

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BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

(FOR LFMS USE)  
INFORMATION FROM LTS

Program Code: 03221  
Status Code: 0  
Fee Category: 3P  
Exp. Date: 20010531  
Fee Comments:  
Decom Fin Assur Req: N

R4  
21

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: PALMER, DAVID W., PH.D.  
Received Date: 960918  
Docket No: 3034093  
Control No.: 301843  
License No.: 48-26708-01  
Action Type: Amendment

2. FEE ATTACHED

Amount:             
Check No.:           

\* ADDL INFO  
301084-R4

3. COMMENTS

Signed D. Hersey  
Date 9-18-96

B. LICENSE FEE MANAGEMENT BRANCH (Check when application is entered ☒)

1. Fee Category and Amount: 3P Continuation of 301084

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

Amendment             
Renewal             
License           

3. OTHER           

Signed SC  
Date 9/24/96

SEP 30 1996

RECEIVED BY LFDCB

Date Sept. 23, 1996

Log SEP 9 III

By SC

Date Completed 9/24/96

1996 SEP 23 AM 11:21

June 20, 1996

David W. Palmer, *PH.D.*  
10403 W. Feerick Place  
Wauwatosa, WI 53222

U.S. Nuclear Regulatory Commission  
Region III  
801 Warrenville Road  
Lisle, IL 60532

Dear Sir or Madame:

In accordance to condition #20 for Materials License 48-26708-01, I am reporting the results of radiation surveys taken prior to initiation of a survey instrument calibration program with the source (@160mCi Cs-137) in the "on" position. The Instrument Calibrator (Model 773, Amersham) was received May 31, 1996 and installed June 1, 1996. These surveys were taken with a wood block of about the same size and mass of a survey instrument located centrally in the photon beam about 1.5 m from the radiation port of the calibrator.

- (1) Radiation levels in the restricted area (i.e., the basement calibration room) are not in excess of the limits specified in Section 20.1201 of 10 CFR part 20. In particular, radiation exposure levels are below 5 mR per hour above background everywhere outside of the primary cone of photon emission.
- (2) Radiation levels in unrestricted areas are not in excess of the limits specified in Section 20.1301 of 10 CFR part 20. (In particular, the maximum radiation exposure level was found to be 0.3 mR per hour above background in locations that will not be occupied more than a few hours per year.

I will be glad to answer any questions you may have concerning these results.

Yours truly,

*David W. Palmer*

David W. Palmer, Ph.D.

*Continuation of 301084*  
**FEE NOT REQUIRED**

**RECEIVED**

SEP 18 1996

**REGION III  
RECEIVED**

JUN 24 1996

**REGION III**

JUN 24 1996

*301843*

OCT 01 1996

David W. Palmer, Ph.D.  
Radiation Safety Officer  
10403 West Feerick Place  
Wauwatosa, WI 53222

Dear Dr. Palmer:

Enclosed is Amendment No. 01 to your NRC Material License No. 48-26708-01 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 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 the 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).
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. Change Radiation Safety Officers;

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- b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
  - c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
  - d. 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 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  
James R. Mullauer, M.H.S.  
Health Physicist  
Nuclear Materials Licensing Branch

License No.: 48-26708-01

Docket No.: 030-34093

Enclosure: Amendment No. 01

DOCUMENT NAME: M:\03034093.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/RH								
NAME	JMULLAUER:jaw								
DATE	09/13/96								

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION III  
801 WARRENVILLE ROAD  
LISLE, ILLINOIS 60532-4351

September 19, 1996

David W. Palmer, Ph.D.  
Radiation Safety Officer  
10403 West Feerick Place  
Wauwatosa, WI 53222

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE  
(Letter Dated 06/20/96)

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. 301843  
License No. 48-26708-01