



STATE OF WISCONSIN
DEPARTMENT OF HEALTH SERVICES

RADIOACTIVE MATERIALS LICENSE

Under s.254.365, Wisconsin Statutes and Chapter DHS 157, Wisconsin Administrative Code, and in reliance on statements and representations made by the licensee, a license is issued authorizing the licensee to receive, acquire, possess and transfer radioactive material designated below; to use the material for the purpose(s) and at the place(s) designated below; and to deliver or transfer the material to persons authorized to receive it in accordance with Chapter DHS 157, Wisconsin Administrative Code. This license is subject to all applicable rules and orders of the Wisconsin Department of Health Services (DHS) including Chapter DHS 157, Wisconsin Administrative Code now or hereafter in effect, and to any conditions specified below.

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| <p>Licensee Name and Address</p> <p>1. Marquette University Office of Research Compliance</p> <p>2. PO Box 1881 Milwaukee, WI 53201-1881</p> | <p>In accordance with letter dated August 07, 2017,</p> <p>3. License Number: 079-1161-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Amendment No.: 08</p> <hr/> <p>5. Expiration Date: March 31, 2018</p> |
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| 6. Radioactive material: | 7. Chemical and/or physical form: | 8. Maximum amount of radioactive materials that the licensee may possess at any one time under this license: | 9. Authorized Use: |
|--------------------------|-----------------------------------|--|---|
| A. Hydrogen-3 | A. Any | A. 400 millicuries | A through H: Research and development as defined in DHS 157.03; animal studies; teaching and training of students. |
| B. Carbon-14 | B. Any | B. 50 millicuries | |
| C. Iodine-125 | C. Any | C. 10 millicuries | |
| D. Phosphorus-32 | D. Any | D. 150 millicuries | |
| E. Phosphorus-33 | E. Any | E. 10 millicuries | |
| F. Sulfur-35 | F. Any | F. 100 millicuries | |
| G. Calcium-45 | G. Any | G. 5 millicuries | |

**RADIOACTIVE MATERIALS
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SUPPLEMENTARY SHEET**

License Number: 079-1161-01

Amendment No: 08

| | | | |
|--------------------------|---|--|---|
| H . Cobalt-60 | H . Sealed source registered either with NRC under 10 CFR 32.210 or with an Agreement State. | H . 1 millicurie | |
| I . Cobalt-57 | I . Sealed Source | I . 200 millicuries | I through J: For storage only, pending disposal. |
| J . Sodium-22 | J . Sealed source registered either with NRC under 10 CFR 32.210 or with an Agreement State. | J . 10 millicuries | |
| K . Americium-241 | K . Foil Sources (Amersham Corp. Model No. AMM. 1001 and AMM. 1001H) | K . 5 sources not to exceed 25 microcuries each | K . To be used as anti-static devices in instruments used for studying physiological properties of single muscle fibers. |

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at the campus of Marquette University, including 530 North 15th Street, Milwaukee, 540 North 15th Street, Milwaukee, 561 North 16th Street, Milwaukee, and 604 North 16th Street, Milwaukee.
11. The Radiation Safety Officer for this license is James T. Anderson, Ph.D.
12. Licensed material shall be used by, or under the supervision of, individuals who have received the training described in the application dated February 28, 2013, have been instructed in the licensee's operating and emergency procedures, and have been approved in writing by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users for three years after the individual's last use of license material..
13. The licensee is authorized to transport licensed material in accordance with the provisions of Chapter DHS 157, 'Radiation Protection', Subchapter XIII, 'Transportation'.
14. Licensed material shall not be used in or on human beings.
15. Licensed material shall not be used in field applications where it is released.
16. Detector cells containing licensed material shall not be opened or foil sources removed from the detector cells by the licensee.
17. Animals, or the products from animals, that have been administered licensed material shall not be used for human consumption.

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18. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by DHS, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, location of sealed sources and/or devices, and the date of the inventory.
19. The license does not authorize commercial distribution of licensed material.
20. Radioactive waste possessed under this license shall be stored in accordance with the statements, representations, and procedures included with the licensee's waste storage plan described in the licensee's application dated February 28, 2013.
21. 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. Chapter DHS 157, 'Radiation Protection' shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the rule.
- A. Application with attachments dated February 28, 2013 and signed by Jeanne M. Hossenlopp, Ph.D.
- B. Letter dated April 24, 2013 and signed by James T. Anderson.
- C. **Letter with attachment dated August 7, 2017 and signed by James Anderson, Ph.D.**

FOR THE WISCONSIN DEPARTMENT OF HEALTH SERVICES



Digitally signed by Mark Paulson

Date: 2017.12.14 14:13:43 -06'00'

2017/12/14

SIGNATURE

Materials Program Supervisor

DATE