### STATE OF WISCONSIN

## DEPARTMENT OF HEALTH SERVICES Bureau of Environmental and Occupational Health

#### RADIOACTIVE MATERIALS LICENSE

Under Wisconsin Stat. §.254.365 and Wisconsin Administrative Code chapter DHS 157, 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 conditions specified below:

Licensee Name and Address					In accordance with appli	In accordance with application dated February 19, 2018.	
1.	Marquette University, DBA - C	office of R	esearch Compliance		Corrected Copy	′	
2.	PO Box 1881 Milwaukee, WI 53201-1881		is renewed in its entire 4. Amendment No.:				
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	Α.	Any	Α.	400 millicuries	A.	Research and development as defined in DHS 157.03; animal studies; teaching and training of students.
В.	Carbon-14	В.	Any	B.	50 millicuries	B.	Research and development as defined in DHS 157.03; animal studies; teaching and training of students.
C.	lodine-125	C.	Any	C.	5 millicuries	C.	Research and development as defined in DHS 157.03; animal studies; teaching and training of students.
D.	Phosphorus-32	D.	Any	D.	150 millicuries	D.	Research and development as

# RADIOACTIVE MATERIALS LICENSE Supplementary Sheet License Number: 079-1161-01 Amendment No.: 9

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:
							defined in DHS 157.03; animal studies; teaching and training of students.
E.	Phosphorus-33	E.	Any	REY	10 millicuries	E.	Research and development as defined in DHS 157.03; animal studies; teaching and training of students.
F.	Sulfur-35	F.	Any	F.	100 millicuries	F.	Research and development as defined in DHS 157.03; animal studies; teaching and training of students.
G.	Cobalt-60	G.	Sealed source registered either with NRC under 10 CFR 32.210 or with an Agreement State	G.	1 millicurie	G.	Research and development as defined in DHS 157.03; animal studies; teaching and training of students.
H.	Sodium-22	H.	Sealed source registered either with NRC under 10 CFR 32.210 or with an Agreement State	H.	10 millicuries	H.	For storage only, pending disposal.
I.	Cobalt-57	l.	Sealed source registered either with NRC under 10 CFR 32.210 or with an Agreement State		200 millicuries	I.	For storage only, pending disposal.
J.	Americium-241	J.	Sealed source registered either with NRC under 10 CFR 32.210 or with an Agreement State	J.	36 millicuries	J.	For storage only, pending disposal.

RADIOACTIVE MATERIALS LICENSE	License Number: 079-1161-01
Supplementary Sheet	Amendment No.: 9

#### **CONDITIONS**

- 10. Licensed material may be used only at the licensee's facilities located at 1414 West Clybourn Street, Milwaukee; 1420 West Clybourn Street, Milwaukee; 1428 West Clybourn Street, Milwaukee; 560 North 16th Street, Milwaukee; and 604 North 16th Street, Milwaukee.
- 11. The Radiation Safety Officer for this license is Jane E. Dorweiler, 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 June 20, 2019, have been instructed in the licensee's operating and emergency procedures, and have been approved in writing by the Radiation Safety Officer. 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.
- 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.

	License Number: 079-1161-01			
Supplementary Sheet	Amendment No.: 9			

- 20. Wisconsin Administrative Code Chapter DHS 157 shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the rule. 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 enclosures, listed below.
  - A. Application with attachments, excluding appendices, dated June 20, 2019 and signed by Jeanne M. Hossenlopp, Ph.D.
  - B. Letter with attachments dated July 24, 2019 and signed by Jane Dorweiler, PhD.
  - C. Letter with attachment dated August 23, 2019 and signed by Jane Dorweiler, PhD.



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Date Signed

**SIGNATURE -** Materials Program Supervisor