NRC FORM 374 PAGE 1 OF 5 PAGES U.S. NUCLEAR REGULATORY COMMISSION Amendment No. 20 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, 36, 37, 39, 40, 70 and 71, 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 In accordance with the letter dated 4. Expiration Date: July 31, 2027 May 6, 2022, REG 1. The Catholic University of America Department of Environmental Health & Safety 5. Docket No.: 070-00190 2. 620 Michigan Avenue, N.E. 3. License No.: SNM-164 is Reference No.: Washington, DC 20064 amended in its entirety to read as follows: 6. Byproduct, source, 7. Chemical and/or physical form Maximum amount that licensee 9. Authorized use 8. and/or special nuclear may possess at any one time material under this license 5 kilograms total A. Uranium- Enriched A. A. Research and development as defined A. Anv not more than 2% in 10 CFR 70.4. B. 10 kilograms total B. Any B. Uranium- Enriched B. Research and development as defined not more than 1% in 10 CFR 70.4. C. 30 microcuries total C. Research and development as defined C. Plutonium-238 C. Any in 10 CFR 70.4. 20 microcuries total D. Plutonium-239 D. D. D. Research and development as defined Any in 10 CFR 70.4. 3 microcuries total E. Plutonium-240 E. Any E. Research and development as defined in 10 CFR 70.4. F. Plutonium-241 F. Any F. 760 microcuries total F. Research and development as defined in 10 CFR 70.4. G. Plutonium-242 G. Any G. 200 microcuries total G. Research and development as defined in 10 CFR 70.4.

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MATERIALS LICENSE SUPPLEMENTARY SHEET			License No.: SNM-164 Amendment No. 20		Docket or Reference No.: 070-00190		e No.:		
6.	Byproduct, source, and/or special nuclear material	7.	Chemical and/	/or physical form	8.	Maximum amo may possess a under this lice	ount that licensee at any one time nse	9.	Authorized use
Н.	Plutonium-244	Н. и	Any	CLEAR	H.	1 microcurie	total	H.	Research and development as defined in 10 CFR 70.4.
Ι.	Plutonium-239	I.	Plated Sourc	ies	I.	1 microgram	total	I.	Teaching and training of students; and calibration and checking of the licensee's instruments.
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	MATERIALS LICENSE	License No.: SNM-164	Docket or Reference No.: 070-00190			
	SUPPLEMENTARY SHEET	Amendment No. 20	-			
		CONDITIONS				
10.	Licensed material shall be used or stored Columbia, 20064	at the licensee's facilities located at: 62	0 Michigan Avenue, NE, Washington, District of			
11.	Licensed material shall only be used by, or under the supervision of, individuals designated, in writing, by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users for 3 years after the individual's last use of licensed material.					
12.	The Radiation Safety Officer (RSO) for this license is Mahmoud S Haleem.					
13.	The licensee shall not use the licensed material in or on humans.					
14.	The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.					
15.	A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State. In the absence of a registration certificate, sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months, or at such other intervals as specified.					
	B. Notwithstanding Paragraph A of this (and/or contamination at intervals not	Condition, sealed sources designed to p to exceed 3 months.	rimarily emit alpha particles shall be tested for leakage			
	C. In the absence of a certificate from a of registration issued by the U.S. Nuc transfer, a sealed source received from	transferor indicating that a leak test has lear Regulatory Commission under 10 C m another person shall not be put into u	been made within the intervals specified in the certificat CFR 32.210 or by an Agreement State, prior to the use until tested and the test results received.	te		

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- D. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.
- E. Sealed sources need not be tested if they 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 shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The leak test shall be capable of detecting the presence of 185 becquerels (0.005 microcuries) of radioactive material on the test sample. If the test reveals the presence of 185 becquerels (0.005 microcuries) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.
- G. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- H. Records of leak test results shall be kept in units of becquerels (microcuries) and shall be maintained for 3 years.
- 16. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 3 years from the date of each inventory, and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
- 17. Sealed sources containing licensed material shall not be opened by the licensee, except as specifically authorized.

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18. 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. This license condition applies only to those statements, representations, and procedures that are required to be submitted in accordance with the regulations. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence impose on the licensee requirements that are more restrictive than or in addition to the regulations.

- A. Application dated April 3, 2012 (ML12114A141)
- B. Letter dated June 18, 2012 (ML12185A233)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: June 28, 2022

By:

Elizabeth Ullrich Region 1