NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 9

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 May 14, 2019,	4. Expiration Date: April 30, 2034
1. U. S. Department of Homeland Security National Urban Security Technology Laboratory		5. Docket No.: 030-37834 Reference No.:
2. 201 Varick Street, Suite 900 New York, NY 10014-7447	3. License number: 31-31334-01 is amended in its entirety to read as follows:	

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	9. Authorized use
A. Sodium-22	A. Sealed Sources (Eckert & Ziegler Isotope Products, Model 193 Series (including Model 3011))	A. 50 microcuries per source and 50 microcuries total	A. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
B. Cobalt-57	B. Sealed Sources (Custom, Model as described in the letter dated November 12, 2008)	B. 100 microcuries per source and 1 millicurie total	B. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
C. Cobalt-60	C. Sealed Sources (Custom, Model as described in the letter dated November 12, 2008)	C. 100 microcuries per source and 300 microcuries total	C. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
D. Cobalt-60	D. Sealed Sources (Eckert & Ziegler Isotope Products, Model 193 Series (including Model 3011))	D. 100 microcuries per source and 500 microcuries total	D. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.

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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	9. Authorized use
E. Barium-133	E. Sealed Sources (Custom, Model as described in the letter dated November 12, 2008)	E. 20 microcuries per source and 100 microcuries total	E. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
F. Barium-133	F. Sealed Sources (Eckert & Ziegler Isotope Products, Model 193 Series (including Model 3011))	F. 25 microcuries per source and 50 microcuries total	F. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
G. Barium-133	G. Sealed Sources (Eckert & Ziegler Isotope Products Laboratories, Model GF-133-D)	G. 15 microcuries per source and 15 microcuries total	G. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
H. Cesium-137	H. Sealed Sources (Custom, Model as described in the letter dated November 12, 2008)	H. 1 millicurie per source and 5 millicuries total	H. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
I. Cesium-137	I. Sealed Sources (Eckert & Ziegler Isotope Products, Model 193 Series (including Model 3011))	I. 5 millicuries per source and 15 millicuries total	I. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
J. Cesium-137	J. Sealed Sources (Eckert & Ziegler Isotope Products, Model GF Type R)	J. 155 microcuries per source and 2.5 millicuries total	J. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
K. Cesium-137	K. Sealed Sources (Eckert & Ziegler Isotope Products, Model GF-137-D)	K. 100 microcuries per source and 100 microcuries total	K. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
L. Thorium-228	L. Sealed Sources (Custom, Model as described in the letter dated November 12, 2008)	L. 25 microcuries per source and 100 microcuries total	L. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
M. Thorium-230	M. Sealed Sources (Eckert & Ziegler Isotope Products, Model EAB-230-32U)	M. 60 nanocuries per source and 200 nanocuries total	M. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.

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N. Thorium-232	N. Sealed Sources (Custom, Model as described in the letter dated November 12, 2008)	N. 100 microcuries per source and 300 microcuries total	N. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
O. Americium-241	O. Sealed Sources (Custom, Model as described in the letter dated November 12, 2008)	O. 52 millicuries per source and 160 millicuries total	O. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
P. Americium-241	P. Sealed Sources (Eckert & Ziegler Isotope Products, Model 193 Series (Including Model 3011))	P. 500 microcuries per source and 500 microcuries total	P. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
Q. Californium-252	Q. Sealed Sources (Custom, Model as described in the letter dated November 12, 2008)	Q. 3 millicuries per source and 5 millicuries total	Q. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.
R. Californium-252	R. Sealed Sources (Eckert & Ziegler Isotope Products, Model 3014)	R. 100 microcuries per source and 100 microcuries total	R. For use in calibration and checking of the licensee's instruments; training of emergency response personnel.

CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at 201 Varick Street, Suite 900, New York, New York, and at temporary job sites of the licensee anywhere in the United States.

11. Licensed material shall only be used by, or under the supervision of, individuals who have received the training described in the application dated October 15, 2018, and have been designated in writing by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.

12. The Radiation Safety Officer (RSO) for this license is Carl Schopfer.

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13. A. Sealed sources 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. Not withstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.

C. In the absence of a certificate from a transferor indicating that a leak test has been made within 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, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.

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.

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H. Records of leak test results shall be kept in units of becquerels (microcuries) and shall be maintained for 3 years.

14. Sealed sources containing licensed material shall not be opened or sources removed from source holders by the licensee, except as specifically authorized.

15. 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.

16. The licensee shall maintain records of use of licensed material at its temporary job sites. The records shall include the identity of material, dates when the material was taken out of storage and when it was returned to storage, and the names(s) of the authorized user(s) who removed from storage and who returned the material to the storage location.

17. The licensee is authorized to hold radioactive material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal in ordinary trash provided:

A. Before disposal as ordinary trash, the waste shall be surveyed at the container surface with the appropriate survey instrument 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, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee.

B. A record of each such disposal permitted under this license condition shall be retained for 3 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.

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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 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 are more restrictive than the regulations.

    A. Letter dated November 12, 2008 (ML083230461)
    B. Application dated October 15, 2018 (ML18298A257)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: September 4, 2019

By: Elizabeth Ullrich
Elizabeth Ullrich
Region 1