U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 1

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 application dated October 15, 2018; and E-mail dated April 02, 2019 with enclosures	4. Expiration Date: April 30, 2034
1. South Dakota Department of Health		5. Docket No.: 030-37803 Reference No.: (030-06373; 40-11733-01)
2. 615 East 4th Street Pierre, SD 57501	3. License number: 40-11733-02 is renewed 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. Americium-241	A. Sealed Sources	A. 1 microcurie total	A. For use in analysis of drinking water to check for count rate consistency and efficiencies on counting systems and for preparing calibration self absorption curves in counting systems.
B. Radium-226	B. Any Except Sealed Sources	B. 0.5 microcuries total	B. For use to make calibration working standards.
C. Strontium-90	C. Any Except Sealed Sources	C. 0.5 microcuries total	C. For use to make calibration working standards.
D. Thorium-230	D. Sealed Sources	D. 0.00702 microcuries (15,600 dpm)	D. For use as a calibration standard.
E. Strontium-90	E. Sealed Sources	E. 0.01346 microcuries (29,800 dpm)	E. For use as a calibration standard.
F. Yttrium-90	F. Sealed Sources	F. 0.01346 microcuries (29,800 dpm)	F. For use as a calibration standard.

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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
G. Radium-228	G. Any Except Sealed Sources	G. 1 microcurie total	G. To be used as reference for standards during sample analysis of drinking water.
H. Strontium-90	H. Any Except Sealed Sources	H. 750 picocuries total	H. For storage.
I. Cesium-137	I. Any Except Sealed Sources	I. 8613 picocuries total	I. For storage.
J. Uranium	J. Sealed Sources (Serial number, Model 436)	J. 0.0077 microcuries total	J. For storage.
K. Carbon-14	K. Plated Sources	K. 0.004 microcuries (13,154 cpm)	K. For storage.
L. Americium-241	L. Plated Sources	L. 45.081 microcuries total	L. For storage.
M. Lead-210	M. Plated Sources (Radium, Model D)	M. 0.00687 microcuries total	M. For storage.
N. Bismuth-210	N. Plated Sources (Radium, Model E)	N. 0.00687 microcuries total	N. For storage.
O. Polonium-210	O. Plated Sources (Radium, Model F)	O. 0.00687 microcuries total	O. For storage.
P. Americium-241	P. Any Except Sealed Sources	P. 1 microcurie total	P. For storage.

CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at South Dakota Department of Health, State Health Laboratory, Laboratory Building, 615 East 4th Street, Pierre, South Dakota, 57501.

11. Licensed material shall only be used by, or under the supervision of Stacy Ellwanger, Jeri Wieczorek, or Rea Riggle.

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12. The Radiation Safety Officer (RSO) for this license is Stacy Ellwanger.

13. 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 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. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source. Records of leak test results shall be kept in units of microcuries and shall be maintained for 3 years.

E. 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.

F. 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.

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G. 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.

H. Analysis of leak test samples and/or contamination shall be performed by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is authorized to collect leak test samples but not perform the analysis.

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

14. Sealed sources, foil sources, or detector cells containing licensed material shall not be opened or sources removed from source holders or foil sources removed from detector cells 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 not use the licensed material in or on humans, except as provided otherwise by specific condition of this license.

17. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.

18. This license does not authorize commercial distribution of licensed material.

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19. 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 October 15, 2018 and E-mail dated April 2, 2019 with enclosures.

20. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.

21. Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

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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. 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. Application dated October 15, 2018 (ML18298A079)

B. E-mail dated April 2, 2019 with enclosures (ML19099A467)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: April 12, 2019

By: **/RA/**

Latischa M. Hanson
Region IV