NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 24

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 letter dated April 12, 2017	4. Expiration Date: December 31, 2022
1. TestAmerica Laboratories - St. Louis		
2. 13715 Rider Trail North Earth City, MO 63045	3. License number: 24-24817-01 is amended in its entirety to read as follows:	5. Docket No.: 030-29601 Reference No.:

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. Any byproduct material specified in section 33.100, Schedule A, with exceptions	A. Any	A. As specified in 10 CFR Part 33, Schedule A, Column II	A. For use incident to the performance of chemical and radiochemical analysis of samples and for use as calibration standards in performing instrument calibration.
B. Strontium-90	B. Any	B. 100 millicuries total	B. Same as 9.A.
C. Cesium-137	C. Any	C. 100 millicuries total	C. Same as 9.A.
D. Cobalt-60	D. Any	D. 100 millicuries total	D. Same as 9.A.
E. Hydrogen-3	E. Any	E. 3 curies total	E. Same as 9.A.
F. Thorium (Natural)	F. Any	F. 200 millicuries total	F. Same as 9.A.
G. Uranium-233	G. Any	G. 19 millicuries (2 grams) total	G. Same as 9.A.
H. Uranium-235	H. Any	H. 714 microcuries (340 grams)	H. Same as 9.A.

UNITED STATES NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE SUPPLEMENTARY SHEET

License Number: 24-24817-01

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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
I. Any byproduct material with Atomic Numbers 84 through 103	I. Any	I. 5 millicuries per radionuclide and 100 millicuries total	I. Same as 9.A.
J. Uranium (Natural)	J. Any	J. 136 kilograms total	J. Same as 9.A.
K. Plutonium-236	K. Any	K. 100 microcuries total	K. Same as 9.A.
L. Plutonium-238	L. Any	L. 100 microcuries total	L. Same as 9.A.
M. Plutonium-239	M. Any	M. 100 microcuries total	M. Same as 9.A.
N. Plutonium-240	N. Any	N. 100 microcuries total	N. Same as 9.A.
O. Plutonium-241	O. Any	O. 5 millicuries total	O. Same as 9.A.
P. Plutonium-242	P. Any	P. 100 microcuries total	P. Same as 9.A.
Q. Thorium-227	Q. Any	Q. 2.1 millicuries total	Q. Same as 9.A.
R. Thorium-228	R. Any	R. 200 millicuries total	R. Same as 9.A.
S. Thorium-229	S. Any	S. 100 microcuries total	S. Same as 9.A.
T. Thorium-230	T. Any	T. 45.4 millicuries total	T. Same as 9.A.
U. Thorium-231	U. Any	U. 2.1 millicuries total	U. Same as 9.A.
V. Thorium-232	V. Any	V. 200 millicuries total	V. Same as 9.A.
W. Thorium-234	W. Any	W. 45.4 millicuries total	W. Same as 9.A.
X. Barium-133	X. Sealed Sources	X. 8 sources; 20 microcuries per source and 160 microcuries total	X. For use as internal calibration sources for liquid scintillation counters.

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Y. Nickel-63	Y. Foils or plated sources registered either with NRC pursuant to 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gas chromatograph as specified in Item 9 of this license	21 sources, 15 millicuries per source and 315 millicuries total	Y. For use in Agilent (formerly Hewlett-Packard) Model 6890 gas chromatography devices for sample analysis.

CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at 13715 Rider Trail North, Earth City, Missouri.

11. The Radiation Safety Officer (RSO) for this license is Michael Ridenhower.

12. Licensed material shall only be used by, or under the supervision of, Michael Ridenhower and Terrance Romanko.

13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the limits specified in 10 CFR 30.72 which require consideration of the need for an emergency plan for responding to a release of licensed material.

14. 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.

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B. 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.

C. 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.

D. 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.

E. 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.

F. 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.

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

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.

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16. Sealed 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.

17. The licensee shall not use the licensed material in or on humans.

18. 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 under equivalent regulations of an Agreement State.

19. 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 Commission or an Agreement State to perform such services.

20. 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 June 29, 2012 (ML12187A196)
    B. Letter dated November 28, 2012 (ML12333A358)
    C. Letter dated July 26, 2013 (ML13211A488)
    D. Letter dated September 28, 2016 (ML16279A470)
    E. Letter dated April 12, 2017 (ML17018A411)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: April 18, 2017

By: Sara A. Forster
Sara A. Forster
Region III