

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.

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| <p>Licensee</p> <p>1. Mid Continent Testing Laboratories, Inc.</p> <p>2. P.O. Box 3388 Rapid City, SD 57709</p> | | <p>In accordance with application dated June 05, 2018.</p> | <p>4. Expiration Date: November 30, 2033</p> |
| | | <p>3. License number: 40-29306-01 is renewed in its entirety to read as follows:</p> | <p>5. Docket No.: 030-37799 Reference No.:</p> |
| <p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Barium-133</p> <p>B. Cesium-134</p> <p>C. Cesium-137</p> <p>D. Cobalt-60</p> | <p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>D. Any</p> | <p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 1 microcurie total</p> <p>B. 1 microcurie total</p> <p>C. 1 microcurie total</p> <p>D. 1 microcurie total</p> | <p>9. Authorized use</p> <p>A. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater.</p> <p>B. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater.</p> <p>C. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater.</p> <p>D. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater.</p> |

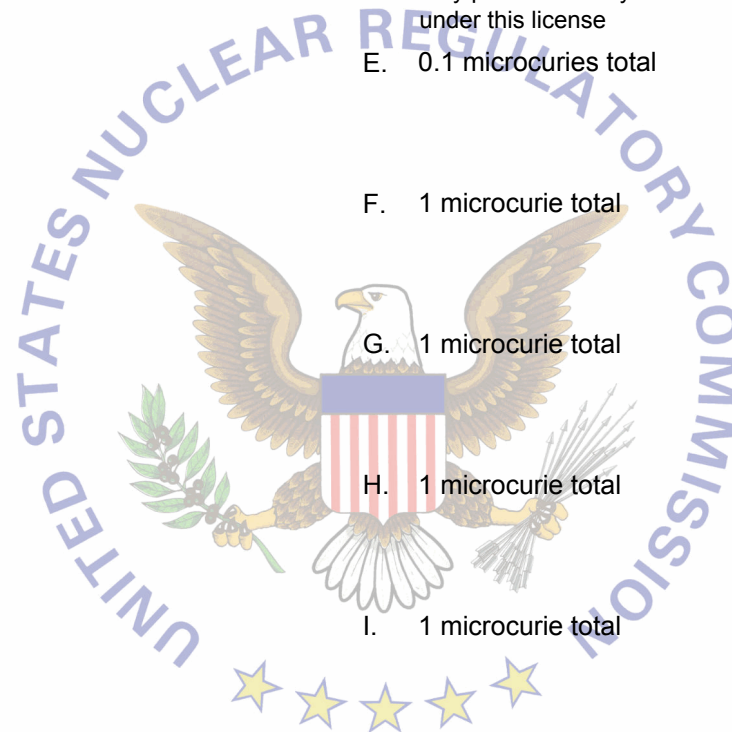
**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
40-29306-01

Docket or Reference Number
030-37799

Amendment No. 5

| 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. Strontium-90 | E. Any | E. 0.1 microcuries total | E. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater. |
| F. Yttrium-90 | F. Any | F. 1 microcurie total | F. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater. |
| G. Zinc-65 | G. Any | G. 1 microcurie total | G. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater. |
| H. Americium-241 | H. Any | H. 1 microcurie total | H. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater. |
| I. Radium-226 | I. Any | I. 1 microcurie total | I. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater. |
| J. Lead-210 | J. Any | J. 1 microcurie total | J. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater. |
| K. Radium-228 | K. Any | K. 1 microcurie total | K. To be used in calibration of analytical instrumentation and as reference standards during sample analysis of solids, drinking water, and groundwater. |



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| L. Byproduct Material as defined in Section 40.4, 10 CFR Part 40 | L. Solid Liquid Waste | L. 68 kilograms total | L. To be used in environmental sample analysis. |

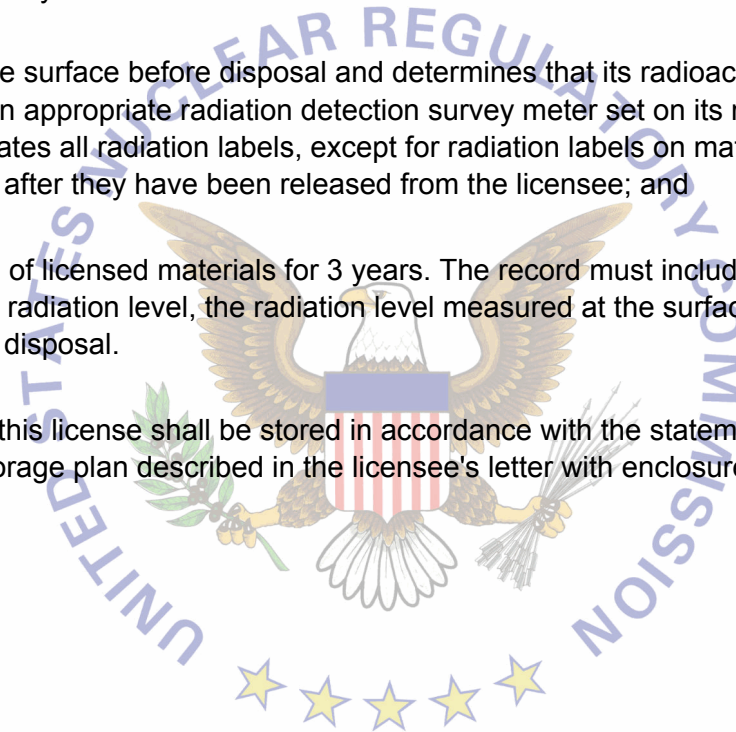
CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at 2381 South Plaza Drive, Rapid City, South Dakota, 57702.
11. Licensed material shall only be used by, or under the supervision of, Dean Aurand or Eric Fuehrer.
12. The Radiation Safety Officer (RSO) for this license is Eric Fuehrer.
13. 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.
14. Licensed material shall not be used in or on human beings except as provided otherwise by specific condition of this license.
15. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific conditions of this license.
16. This license does not authorize commercial distribution of licensed material.

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17. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:
- A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biohazard waste after they have been released from the licensee; and
 - B. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of the disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.
18. 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 letter with enclosures dated October 22, 2018.



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19. 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 5, 2018 (ML18171A139)

B. Letter with enclosures dated October 22, 2018 (ML18310A146)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: November 15, 2018By: R/A
Michelle M. Hammond
Region IV