

**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.

<p>Licensee</p> <p>1. Southeastern Land, LLC</p> <p>2. 81 Enterprise Drive Debord, KY 41214</p>		<p>In accordance with letter dated December 07, 2020,</p>	<p>4. Expiration Date: February 28, 2022</p>
		<p>3. License No.: 16-35383-02 is amended in its entirety to read as follows:</p>	<p>5. Docket No.: 030-39003 Reference No.: 47-25168-01</p>
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cesium-137</p> <p>B. Americium-241</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed Sources (Eckert &amp; Ziegler Isotope Products, Model HEG-137; QSA Global, Model CDC.800)</p> <p>B. Sealed Sources (QSA Global, Model AMC.17)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 5 millicuries total and no single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or Agreement State.</p> <p>B. 300 millicuries total and no single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or Agreement State.</p>	<p>9. Authorized use</p> <p>A. For use in Scantech International Pty Ltd, Model 9000 fixed gauging devices to perform coal parameter measurements.</p> <p>B. For use in Scantech International Pty Ltd, Model 9000 fixed gauging devices to perform coal parameter measurements.</p>

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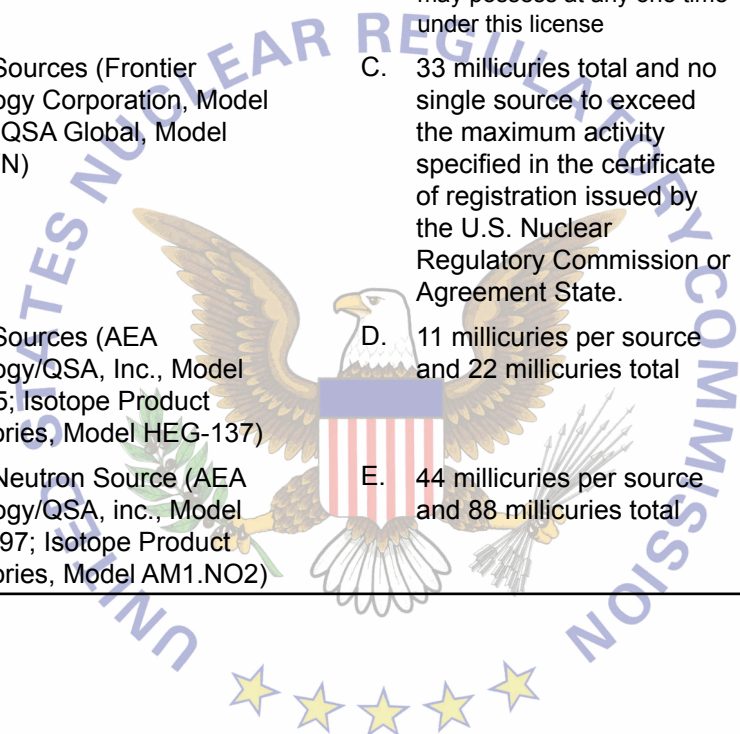
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6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license	9. Authorized use
C. Californium-252	C. Sealed Sources (Frontier Technology Corporation, Model 100 ST; QSA Global, Model CVN.CYN)	C. 33 millicuries total and no single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or Agreement State.	C. For use in Scantech International Pty Ltd, Model 9000 fixed gauging devices to perform coal parameter measurements.
D. Cesium-137	D. Sealed Sources (AEA Technology/QSA, Inc., Model CEC.805; Isotope Product Laboratories, Model HEG-137)	D. 11 millicuries per source and 22 millicuries total	D. For use in Humboldt Scientific, Inc. Model 5001 portable gauging devices for measuring physical properties of materials.
E. Americium-241/ Beryllium	E. Sealed Neutron Source (AEA Technology/QSA, inc., Model AMN.V997; Isotope Product Laboratories, Model AM1.NO2)	E. 44 millicuries per source and 88 millicuries total	E. For use in Humboldt Scientific, Inc. Model 5001 portable gauging devices for measuring physical properties of materials.



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**CONDITIONS**

10. Licensed material may be used or stored only at the licensee's facilities located at: Preparation Plant No. 1, Big Branch Road, one and one-half miles north of Route 65, Naugatuck, West Virginia. For portable gauges, the gauges may be used at temporary job sites anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed materials, including areas of exclusive Federal jurisdiction within Agreement States. If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.
11. Licensed material shall only be used by, or under the supervision of, individuals who have received the training described in the facsimile dated July 12, 2005, and application dated May 30, 2019, 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 Michael E. White.
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. 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 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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- D. 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.
- E. 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.
- F. Records of leak test results shall be kept in units of becquerels (microcuries) and shall be maintained for 3 years.
14. Sealed sources or detector cells 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. A. For fixed gauges, each gauge shall be tested for the proper operation of the on-off mechanism (shutter) and indicator, if any, at intervals not to exceed 6 months or at such longer intervals as specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or the equivalent regulations of an Agreement State.
- B. For fixed gauges, the periodic on-off mechanism (shutter) and indicator test requirement does not apply to gauges that are stored, not being used, and have the shutter lock mechanism in a locked position. The gauges exempted from this periodic test shall be tested before use. Records of test results shall be maintained for 3 years from the date of each test.

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17. For fixed gauges, the following services shall not be performed by the licensee: (i) installation, (ii) initial radiation surveys, (iii) relocation, (iv) removal from service, (v) dismantling, (vi) alignment, (vii) replacement, (viii) disposal of the sealed source, and (ix) non-routine maintenance or repair of components related to the radiological safety of the gauge (i.e., the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, shielding). These services shall be performed only by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
18. For fixed gauges, the licensee may initially mount a gauge, if permitted by the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State, and under the following conditions:
- A. The gauge must be mounted in accordance with written instructions provided by the manufacturer.
  - B. The gauge must be mounted in a location compatible with the Conditions of Normal Use and Limitations and/or Other Considerations of Use in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State.
  - C. The on-off mechanism (shutter) must be locked in the off position, if applicable, or the source must be otherwise fully shielded.
  - D. The gauge must be received in good condition (e.g., the package was not damaged).
  - E. The gauge must not require any modification to fit in the proposed location.
- Mounting does not include electrical connection, activation, or operation of the gauge. The source must remain fully shielded, and the gauge may not be used until it is installed and made operational by a person specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such operations.
19. A. For fixed gauges, the licensee may maintain, repair, or replace device components that are not related to the radiological safety of the device containing licensed material and that do not result in the potential for any portion of the body to come into contact with the primary beam or result in increased radiation levels in accessible areas.

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- B. For fixed gauges, the licensee may not maintain, repair, or replace any of the following device components: the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, shielding, or any other component related to the radiological safety of the device, except as provided otherwise by specific condition of this license.
20. For fixed gauges, prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above, and below the gauge with the shutter open. This survey shall be performed only by persons authorized to perform such services by the U.S. Nuclear Regulatory Commission or an Agreement State.
21. For fixed gauges, the licensee shall operate each device containing licensed material within the manufacturer's specified temperature and environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
22. For fixed gauges, the licensee shall assure that the shutter mechanism of each device containing licensed material is locked in the closed position during periods when a portion of an individual's body may be subject to the direct radiation beam. The licensee shall review and modify, as appropriate, its "lock-out" procedures whenever a new device is obtained to incorporate the device manufacturer's recommendations.
23. For portable gauges, any cleaning, maintenance, or repair of the gauge(s) that requires detaching the source or source rod from the gauge shall be performed only by the manufacturer or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
24. For portable gauges, except for maintaining labeling as required by 10 CFR Part 20, or Part 71, the licensee shall obtain authorization from the U.S. Nuclear Regulatory Commission before making any changes in the sealed source, device, or source-device combination that would alter the description or specifications as indicated in the respective certificate of registration issued either by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or by an Agreement State.

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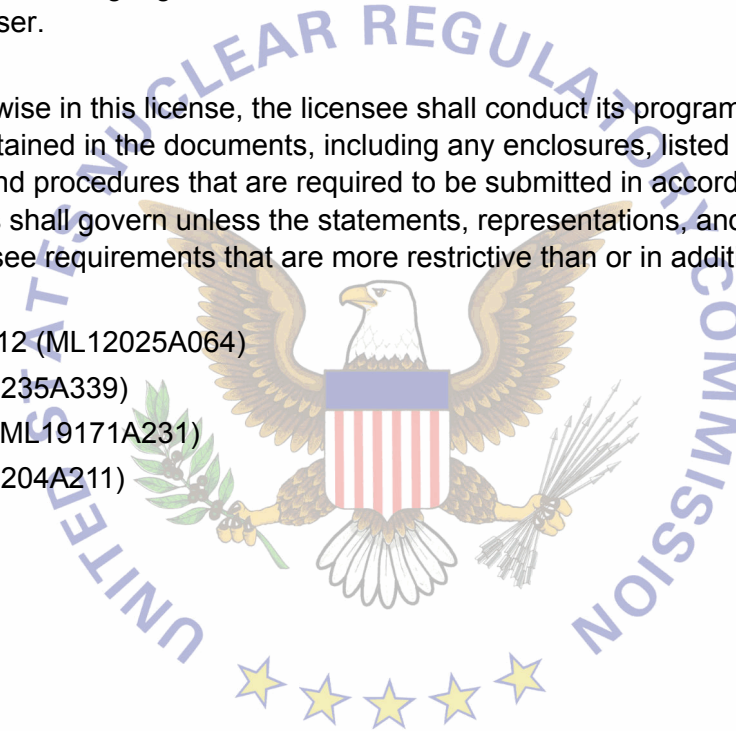
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25. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport or storage, or when not under the direct surveillance of an authorized user.
26. 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 January 11, 2012 (ML12025A064)
  - B. Letter dated July 29, 2016 (ML16235A339)
  - C. Application dated May 30, 2019 (ML19171A231)
  - D. Letter dated July 18, 2019 (ML19204A211)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: March 22, 2021

By: \_\_\_\_\_

Juan Ayala  
Region 1