

ECS MID-ATLANTIC, LLC

Geotechnical • Construction Materials • Environmental • Facilities

Security and Industrial Branch Division of Nuclear Materials Safety Region 1 King of Prussia, PA 19406 6.7

September 21, 2006

Please amend section nine of the attached license (number 45-31022-01) for ECS, Mid-Atlantic, LLC (108 Ingram Road, Unit 1, Williamsburg, VA office) to include Troxler 4640 series nuclear gauge. The sealed source for this series is Cesium 137 (AEA Technology Model CDCW556; Isotope Products Laboratories Model HEG-137) which we are currently licensed for.

Respectfully,

Mark S. Schwindt, RSO

REGION 1

NRC	FORM	374

U.S. NUCLEAR REGULATORY COMMISSION

PAGE	1	OF	4	PAGES
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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, 39, 40, and 70, 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 1. ECS, Mid-Atlantic, LLC' 3. License number 45-31022-01 2. 108 Ingram Road, Unit 1 4. Expiration date April 30, 2015 Williamsburg, Virginia 23188 5. Docket No. 030-36879 Reference No. Byproduct, source, and/or special Chemical and/or physical form Maximum amount that licensee may nuclear material possess at any one time under this A. Cesium 137 Sealed Sources (AEA A. No single source to exceed the Technology Model CDCW556; maximum activity specified in Isotope Products Laboratories the certificate of registration Model HEG-137; CPN issued by the U.S. Nuclear International Model CPN-131) Regulatory Commission or an Agreement State B. Americium 241 B. Sealed Sources (AEA B. No single source to exceed the Technology Model ANMV.997; maximum activity specified in Isotope Products Laboratories the certificate of registration Model Am1.NO2, 3021 and issued by the U.S. Nuclear 3027; CPN International Model Regulatory Commission or an CPN-131) Agreement State Authorized use: A. and B. In Troxler Electronic Laboratories Models 3430 and 3440, and CPN International Model MC-3 portable gauging devices for measuring physical properties of materials.

NRC FORM 374A	U.S. NUCLEAR REGULATORY COMMISSION		PAGE	2	of	4	PAGES
		License Number					
		45-31022-01					

MATERIALS LICENSE SUPPLEMENTARY SHEET

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CONDITIONS

- 10. Licensed material may be used or stored at the licensee's facilities located at 108 Ingram Road, Unit 1, Williamsburg, Virginia, and may be used at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, 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 be used by, or under the supervision and in the physical presence of, individuals who have received the training described in the application dated April 12, 2005.
- 12. The Radiation Safety Officer for this license is Mark S. Schwindt.
- 13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
- 14. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 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.
- 15. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
 - 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 under equivalent regulations of 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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U.S. NUCLEAR REGULATORY COMMISSION

License	Number
45-31	022-01

Docket or Reference Number 030-36879

PAGE

3

of

PAGES

MATERIALS LICENSE SUPPLEMENTARY SHEET

- D. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) 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. Tests for leakage and/or contamination, limited to leak test sample collection, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is not authorized to perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- F. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.
- 16. Sealed sources or source rods containing licensed material shall not be opened or sources removed or detached from source rods or gauges by the licensee, except as specifically authorized.
- 17. 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.
- 18. Any cleaning, maintenance, or repair of the gauges 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.
- 19. A. If the licensee uses unshielded sealed sources extended more than 3 feet below the surface, the licensee shall use surface casing that extends from the lowest depth to 12 inches above the surface and other appropriate procedures to reduce the probability of the source or probe becoming lodged below the surface. If it is not feasible to extend the casing 12 inches above the surface, the licensee shall implement procedures to ensure that the cased hole is free of obstruction before making measurements.
 - B. If a sealed source or a probe containing sealed sources becomes lodged below the surface and it becomes apparent that efforts to recover the sealed source or probe may not be successful, the licensee shall notify the U.S. Nuclear Regulatory Commission and submit the report required by 10 CFR 30.50(b)(2) and (c). The licensee shall not abandon the sealed source or probe without obtaining the Commission's prior written consent.
- 20. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

NRC	FORM 374A U.S. NUCLEA	R REGULATORY COMMISSION	v	PAGE	4	of	4	PAGES
			License Number 45-31022-01					· · · · · · · · · · · · · · · · · · ·
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ITEMS 5 AND 6: MATERIALS TO BE POSSESSED AND PROPOSED USES

Yes	No	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
		Cesium-137	Sealed source manufacturer or distributor and model number: _AEA Technology- 0634 Device manufacturer or distributor and model number: _Troxler - 4640-B	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes X Specific description of the gauge use: on — site Material Density Testing	☐ Not applicable ☐ Uses are: ☐ (Submit safety analysis supporting safe use)
		Americium- 241	Sealed source manufacturer or distributor and model number; Device manufacturer or distributor and model number:	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes Specific description of the gauge use:	□ Not applicable □ Uses are: (Submit safety analysis supporting safe use)

ITEMS 5 AND 6: MATERIALS TO BE POSSESSED AND PROPOSED USES

Yes	No.	Radioisotope	Manufacturer or Distributor Model No.	Quantity	Use As Listed on SSD Certificate	Specify Other Uses Not Listed on SSD Certificate
X		Cesium-137	Sealed source manufacturer or distributor and model number: AEA Technology- 0634 Device manufacturer or distributor and model number: Troxler- 4640-8	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes D Specific description of the gauge use: on-site Material Density Testing	☐ Not applicable ☐ Uses are: ☐ (Submit safety analysis supporting safe use)
		Americiums 241	Sealed source manufacturer or distributor and model numbers Device manufacturer or distributor and model number.	Not to exceed either the maximum activity per source or maximum activity per device as specified in Sealed Source and Device Registration Certificate	Yes® Specific description of the gauge use on—site	Submitsafety analysis supporting safe use)