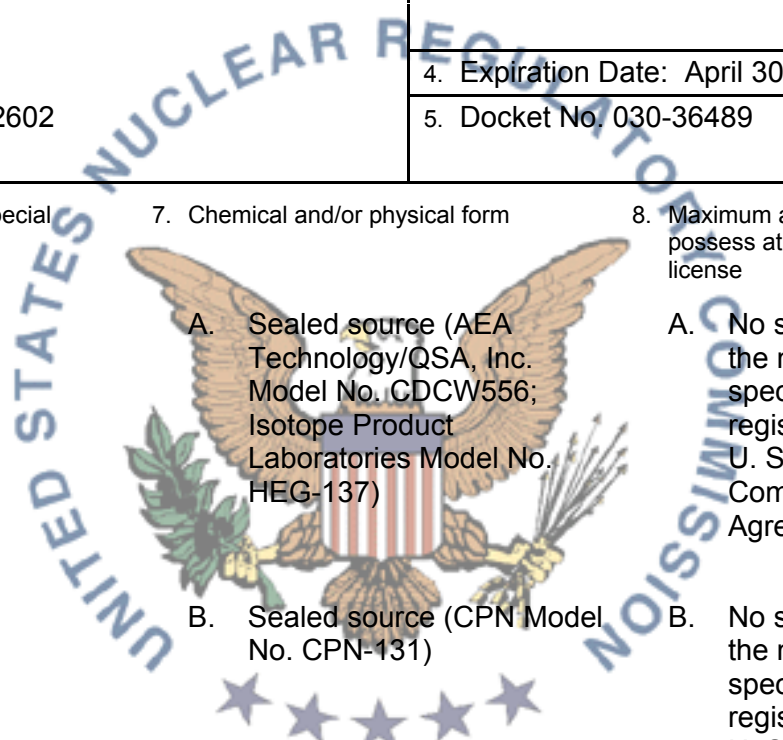


**MATERIALS LICENSE**

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. Engineering Consulting Services, Ltd.	3. License No. 45-30874-01
2. 166 Windy Hill Lane Winchester, Virginia 22602	4. Expiration Date: April 30, 2014
	5. Docket No. 030-36489

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
A. Cesium 137	A. Sealed source (AEA Technology/QSA, Inc. Model No. CDCW556; Isotope Product Laboratories Model No. HEG-137)	A. No single source to exceed the maximum activity specified in the certificate of registration issued by the U. S. Nuclear Regulatory Commission or an Agreement State
B. Cesium 137	B. Sealed source (CPN Model No. CPN-131)	B. No single source to exceed the maximum activity specified in the certificate of registration issued by the U. S. Nuclear Regulatory Commission or an Agreement State
C. Americium 241	C. Sealed neutron source (AEA Technology/QSA, Inc. Model No. AMNV.997; Isotope Products Laboratories Model Nos. 3021, 3027 or Am1.NO2)	C. No single source to exceed the maximum activity specified in the certificate of registration issued by the U. S. Nuclear Regulatory Commission or an Agreement State



**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License No.  
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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  |
| D. Americium 241                                      | D. Sealed neutron source (CPN Model No. CPN-131) | D. No single source to exceed the maximum activity specified in the certificate of registration issued by the U. S. Nuclear Regulatory Commission or an Agreement State |

9. Authorized Use:

- A. To be used in Troxler Electronic Laboratories, Inc. Model No. 4640 Series portable gauging devices for measuring physical properties of materials.
- A. and C. To be used in Troxler Electronic Laboratories, Inc. Model No. 3400 Series portable gauging devices for measuring physical properties of materials.
- B. and D. To be used in CPN International, Inc. Model MC Series portable gauging devices for measuring physical properties of materials.

CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at 166 Windy Hill Lane, Winchester, 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.
11. The Radiation Safety Officer (RSO) for this license is Timothy E. Price.
12. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in the application/letter dated January 19, 2004.

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030-36489

13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as specified by 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 leak 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.
- D. The leak test shall be capable of detecting the presence of 185 becquerels (Bq) (0.005 uCi) of radioactive material on the test sample. If the test reveals the presence of 185 Bq (0.005 uCi) 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. The report shall be filed within five days of the date the leak test result is known with the appropriate U. S. Nuclear Regulatory Commission, Regional Office referenced in Appendix D of 10 CFR Part 20. The report shall specify the source involved, the test results, and corrective action taken.
- E. Tests for leakage 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. In addition, the licensee is authorized to collect leak test samples but not perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by the 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 three years.
14. 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.
15. The licensee shall conduct a physical inventory every six months to account for all sources and/or devices received and possessed under this license.
16. Each portable 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, storage, or when not under the direct surveillance of an authorized user.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License No.  
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17. Except for maintaining labeling as required by 10 CFR Part 20 or 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 Certificates of Registration issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.
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. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
20. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum specified 10 CFR 30.35(d) for establishing decommissioning financial assurance.
21. 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. 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 January 19, 2004

FOR THE U. S. NUCLEAR REGULATORY COMMISSION

DATE April 7, 2004

BY /RA/  
Bryan A. Parker  
Nuclear Materials Safety Branch 3  
Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406-1415