

31 January 1997

Ms. Diane Heim
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30323-0199

Re.: NRC License Number 45-25228-01

Dear Ms. Heim:

This letter is a request for an amendment to the above referenced NRC license. A check for the required amendment fee is attached. EARTH TECH requests the following amendments:

- In addition to the Troxler model nuclear density gauges listed in item 9 of the NRC license, EARTH TECH requests to use a CPN Corporation Model MC-3 nuclear density gauge. The source used within the CPN model is a Cesium 137/Americium 241:Be source and is within the requirements of section 6, 7, and 8 of the current NRC license.
- In addition to the location within Charlottesville, Virginia and temporary job sites within the United States listed in item 10 in the NRC license, EARTH TECH requests to list the EARTH TECH office located at 53 Haddonfield Road, Suite 316, Cherry Hill, New Jersey as an additional storage facility. As necessary, Dennis Libenson, P.G. shall serve as the Radiation Safety Officer for storage or work related to the Cherry Hill, New Jersey office. A copy of Mr. Libenson's training certificate is attached to this request.

Your expedient processing to this request would be appreciated. Should you have any questions or require any additional information concerning this request, please contact John Gooch at (804) 977-1498 or Neil Feldscher at (609) 482-5553.

Very truly yours,

EARTH TECH, INC.



Neil A. Feldscher, ASP, OHST
Staff Scientist



John Y. Gooch
Radiation Safety Officer

enclosure

Telephone

609 482 5553

Facsimile

609 482 6514

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

DENNIS J. LIBENSON

of

EARTH TECH, INC.

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC.
TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

Radiological Safety

1. Principles and practices of radiation protection.
2. Leak testing procedures.
3. Mathematics and calculations basic to the use and measurement of radioactivity.
4. Biological effects of radiation.
5. Radioactivity measurement standardization and monitoring techniques and instruments.
6. Accident and incident procedures.
7. Procedures for nuclear gauge storage and transportation.
8. General safety precautions.

Gauge Operation

1. Instrument theory
2. Operating procedures
3. Maintenance
4. Field application
5. Gauge calibration

CERTIFICATE #: 074390

Frank D. Jones
FRANK D. JONES

INSTRUCTOR

8/06/96

DATE

WILLIAM F. TROXLER

PRESIDENT

THIS DOCUMENT MAY BE USED TO VERIFY TRAINING REQUIRED BY 49CFR172, SUBPART H.

DENNIS J LIBENSON

NAME

8/06/96

TRAINING DATE

Training materials used are part of the Troxler Electronic Laboratories, Inc. Nuclear Gauge Safety Training Program. Topics covered apply to recognition, labeling, preparation for transport, transportation, regulatory compliance, emergency response, personal protection, and accident avoidance only as they apply to radioactive White I and Yellow II portable gauging devices.

TROXLER ELECTRONIC LABORATORIES, INC.
3008 CORNWALLIS ROAD
P.O. BOX 12057
RESEARCH TRIANGLE PARK, NC 27709

FRANK D. JONES
INSTRUCTOR

I hereby certify that the above named employee has been properly trained and tested in accordance with the requirements of 49CFR172, subpart H.

COMPANY OFFICIAL

8/06/98
EXPIRATION DATE

COMPANY AND ADDRESS



NRC FORM 374
(7-94)

U.S. NUCLEAR REGULATORY COMMISSION

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MATERIALS LICENSE

Amendment No. 1

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.

<p style="text-align: center;">Licensee</p> <p>1. EARTH TECH, Inc. Formerly Applied Technology & Engineering</p> <p>2. 1115 5th Street, S.W. Charlottesville, VA 22902-6465</p>	<p>In accordance with letter dated January 19, 1996</p> <p>3. License Number 45-25228-01</p> <p>is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration Date January 31, 2003 (Extended)</p> <hr/> <p>5. Docket or Reference No. 030-33014</p>
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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
A. Cesium 137	A. Sealed source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	A. No single source to exceed 10 millicuries
B. Americium 241	B. Sealed neutron source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	B. No single source to exceed 50 millicuries
C. Californium 252	C. Sealed source registered pursuant to 10 CFR 32.210 or an equivalent Agreement State regulation	C. No single source to exceed 66 microcuries

9. **Authorized Use:**

A. through C. For use in Troxler Model 3400 series, Model 4640 or Model 3216 portable gauging devices to measure properties of materials

CONDITIONS

- 10. Licensed material may be used at the licensee's facilities located at 1115 5th Street, Charlottesville, Virginia and 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 Protection Officer for this license is John Y. Gooch

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NRC FORM 374A
(7-84)

U.S. NUCLEAR REGULATORY COMMISSION

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number	45-25228-01
Docket or Reference Number	88-33014
Amendment No.	1

(cont.)

CONDITIONS

12. Licensed material shall only be used by, or under the supervision and in the physical presence of, John Y. Gosch or individuals who have successfully completed the manufacturer's training program for gauge users, have been instructed in the licensee's routine and emergency operating procedures and who have been designated by the Radiation Safety Officer.
13. Sealed sources containing licensed material shall not be opened or removed from the gauging device by the licensee.
14. A.(1) Sealed sources specified in Item 7, shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.
 (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
 B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.
 C. The test shall be capable of detecting the presence of 0.005 microcuries of radioactive material on the test sample. If the test reveals the presence of 0.005 microcuries or more of removable contamination, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U. S. Nuclear Regulatory Commission, Region II, Division of Radiation Safety and Safeguards, Nuclear Material Inspection Section, 101 Marietta Street, Suite 2900, Atlanta, Georgia 30323. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
 D. The licensee is authorized to collect leak test samples for analysis by Tronter Electronics Laboratories or tests for leakage and/or contamination shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
15. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
16. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
17. The licensee shall maintain records of information important to safe and effective decommissioning at location specified in Condition 10. pursuant to the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.

207305

NRC FORM 874A
(7-89)

U.S. NUCLEAR REGULATORY COMMISSION

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number 45-25228-01

DocId or Reference Number 33014

Amendment No. 1

(cont.)

CONDITIONS

- 18. 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.
- 19. 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, storage or when not under the direct surveillance of an authorized user.
- 20. Any cleaning, maintenance, or repair of the gauge(s) that requires removal of the source rod shall be performed only by the manufacturer or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
- 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 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 November 9, 1992
 - B. Letter dated January 19, 1996 [Licensee name change and change of ownership]
 - C. NRC letter dated March 1, 1996 [Extends license expiration date pursuant to 10 CFR 30.36]
 - D. Facsimile transmission dated July 19, 1996 [Licensee's response to change of ownership questionnaire]

FOR THE U. S. NUCLEAR REGULATORY COMMISSION

EARL G. WRIGHT

Date Jan 25 1996

By Earl G. Wright

Region II, Division of Nuclear Materials Safety
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30323-0199