



Soil and Materials Engineers, Inc.

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June 1, 2011

Materials Licensing Branch
US Nuclear Regulatory Commission, Region 111
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

RE: Amendment to License No. 21-17158-02

To Whom It May Concern:

This letter is to request an amendment to our license to allow the training of potential gauge users with an "in-house" program administered by the Radiation Safety Officer or the manufacturer's training program (or approved equivalent). An outline of our comprehensive radiation safety program has been put together for your review and has been included with this amendment request letter.

We would also like to increase our possession limit from 70 to 75 portable gauges.

In addition, we would like to change Radiation Safety Officers. The present safety officer will be retiring in the near future and will be replaced by Mr. Trevor D. Shaheen. Mr. Shaheen graduated from Lawrence Technological University with a Bachelor of Science in Construction Management degree in May of 2009. He is currently pursuing a Masters of Construction Engineering Management degree from Lawrence Tech. with an expected graduation date in the spring of 2014. Mr. Shaheen has been a certified gauge user for Soil & Materials Engineers, Inc. since 2006 and successfully completed the Troxler Radiation Safety Officer course in January of 2011 (a copy of his certificate is attached to this amendment request letter). With his extensive experience and training, he should be more than qualified to assume the duties of the Radiation Safety Officer

If you have any questions or need additional information, please feel free to contact us.

Yours very truly,

SOIL AND MATERIALS ENGINEERS, INC.

Paul Bycofski
Manager Operations/RSO

Trevor D. Shaheen, SMSI
Materials Specialist

Attachments: Application for License Amendment
Amendment outline for Item No. 6, 11, & 12
Radiation Safety/HAZMAT Course Outline for Potential Users of the
Nuclear Moisture/Density Gauge
Diploma
RSO Certificate of Completion
Hazmat Certification

Plymouth
Bay City
Grand Rapids
Kalamazoo
Lansing
Shelby Township
Toledo
Traverse City

RECEIVED JUN 07 2011

consultants in the geosciences, materials, and the environment

APPLICATION FOR MATERIALS LICENSE

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

OFFICE OF FEDERAL & STATE MATERIALS AND
ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA,
KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY,
NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH
CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,
SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND
APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,
LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH
DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS,
UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
612 E. LAMAR BOULEVARD, SUITE 400
ARLINGTON, TX 76011-4125

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- ☐ A. NEW LICENSE
- ☒ B. AMENDMENT TO LICENSE NUMBER 21-17158-02
- ☐ C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

Soil and Materials Engineers, Inc.
43980 Plymouth Oaks Blvd.
Plymouth, MI 48170

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

See attached sheet for list of locations

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Paul Bycofski

TELEPHONE NUMBER

(734) 454-9900

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

- a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY	AMOUNT ENCLOSED	\$

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Paul Bycofski, RSO

SIGNATURE

Paul Bycofski

DATE

06/01/2011

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

Amendments to License No. 21-17158-02

License Item # 6.

- A. Cesium-137 Sealed Sources (Troxler drawing No. A-102112) 75 sources not to exceed 9 millicuries each
- B. Americium-241 Sealed Sources (Troxler drawing No. A-102541) 75 sources not to exceed 44 millicuries each
- C. Californium-252 Sealed Sources (Troxler drawing No. A-105779) 5 sources not to exceed 66 microcuries each

License Item # 11.

- A. The Radiation Safety Officer for this license is Trevor D. Shaheen.

License Item # 12.

Licensed material shall be used by, or under the supervision and in the presence of, individuals who have completed the manufacturer's (or approved equivalent) or licensee's "in-house" training program and have been designated by the licensee's Radiation safety officer. The licensee shall maintain records of the individuals who have been designated as authorized users.

Radiation Safety/ HAZMAT Course Outline for Potential Users of the Nuclear Moisture/Density Gauge.

1- Gauge Operation Theory

- Atomic Structure
- Radioactivity
 - Quantities
 - Half Life
- Radioactive Sources Within the Gauge
 - Types
 - Encapsulation
 - Working Life

2- Radiologic Safety

- Biological Effects of Radiation
- Limiting Personnel Radiation Exposure
 - Time
 - Distance
 - Shielding
 - ALARA
- Measuring Personnel Radiation Exposure

3- Regulatory Requirements

- NRC and Agreement States
- Personnel Exposure Monitoring Limitations
- Proper Storage of the Gauge
- Leak Test Requirements
- Record Keeping

4- Transportation

- Hazmat/US DOT Training
- Shipping Name
- Packaging
- Labeling/ Marking
- Shipping Papers/Bill Of Lading/Location
- Inspection/Safety/Securing

5- Emergency Procedures

- Accidents Involving the Gauge
 - Radiological Safety Precautions
 - Notification of Accident
- Lost or Stolen Gauge
 - Notification Procedures
 - Actions to Prevent Theft

6- Gauge Operation

- Proper Use and Safe Operation of Gauge
- Maintenance
- Leak Test Procedures
- Safety Practices

7- Field Demonstration

- Hands-on Use

8- Test

- 70% (or greater) grade to pass
- Emphasis on radiation safety of portable gauge storage, use, sealed source location, maintenance, and transportation
- Review of correct and incorrect answers immediately following the scoring of the test.

Lawrence Technological University

College of Engineering

This Certifies That
the Board of Trustees of Lawrence Technological University
upon the recommendation of the President and Faculty have conferred upon
Trevor Dale Shaheen

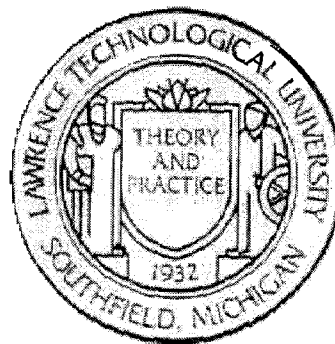
the Degree of
Bachelor of Science in Construction Management
Cum Laude

with all the rights, privileges and honors pertaining thereto

In testimony thereof we have subscribed our names confirmed by the Seal of
Lawrence Technological University on this seventeenth day of May,
Two Thousand and Nine.

Lloyd E. Lewis
Chairman of the Board

MARIE VAZ
Prohost



David M. Allen
President

Devdas Shetty
Dean

Certificate of Completion

This certifies that

Trevor D. Shaheen

has successfully completed the
Radiation Safety Officer Training Class
conducted by the training department of

Troxler Electronic Laboratories, Inc.

P. Patrick Schroeder

Patrick Schroeder
Instructor

January 27, 2011
Date

William F. Troxler, Jr.
President



Troxler Electronic Laboratories, Inc.
PO Box 12057 * 3008 Cornwallis Rd. * Research Triangle Park, NC 27709
Phone: (919) 549-8861 * Fax: (919) 549-0761 * Web site: www.troxlerlabs.com

30006704

HAZMAT Certification

as required by U.S. DOT and IATA

This certifies that

Trevor D. Shaheen

has been trained and tested in accordance with the U.S. Department of Transportation and International Air Transport Association (IATA) hazardous material requirements for general awareness/familiarization, function-specific, safety, and security awareness training as related to the transportation of nuclear gauges. A description of the training course materials is available from Troxler Electronic Laboratories, Inc.

Training Date

January 27, 2011

Expiration Date

3 Years from Date of Class

Instructor

Patrick Schroeder



Troxler Electronic Laboratories, Inc.

PO Box 12057 • 3008 Cornwallis Road • Research Triangle Park, NC 27709

Phone: (919) 549-8661 • Fax: (919) 549-0761 • www.troxlerlabs.com

Hazmat Employer Certification

Company:

Company Official:

Paul Byczalski
RSO

Date:

2/14/2011

Enrollment ID: 30006704



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To:

MATERIALS LICENSING BRANCH
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REGION 111
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LISLE IL 60532-4352

consultants in the geosciences,
materials and the environment

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