

**APPLICATION FOR MATERIAL LICENSE**

Estimated burden per response to comply with this mandatory collection request: 7.4 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 estimates to the Records Management Branch (T-8 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-10202, (3150-0000), 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:**  
 DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY  
 OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS  
 U.S. NUCLEAR REGULATORY COMMISSION  
 WASHINGTON, DC 20555-0001

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:**  
**IF YOU ARE LOCATED IN:**  
 CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION  
 NUCLEAR MATERIALS SAFETY BRANCH  
 U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
 475 ALLENDALE ROAD  
 KING OF PRUSSIA, PA 19406-1416

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:  
 SAM NUNN ATLANTA FEDERAL CENTER  
 U. S. NUCLEAR REGULATORY COMMISSION, REGION II  
 81 FORSYTH STREET, S.W., SUITE 23786  
 ATLANTA, GEORGIA 30303-8891

**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  
 601 WARRENVILLE RD.  
 Lisle, IL 60532-4361

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, 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 SECTION  
 U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
 911 RYAN PLAZA DRIVE, SUITE 400  
 ARLINGTON, TX 76011-6064

03033803  
 X

RECEIVED  
 REGION I  
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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

C. RENEWAL OF LICENSE NUMBER 37-30210-01

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

Geo-Science Engineering Co., Inc.  
 1252 Mid Valley Drive  
 Jessup, Pennsylvania 18434

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED  
 Storage and Use at  
 Geo-Science Engineering Co., Inc.  
 1252 Mid Valley Drive  
 Jessup, Pennsylvania 18434  
 and at temporary job sites in states subject to NRC's Regulatory Authority

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Anthony Riggi

TELEPHONE NUMBER  
 (570) 489-8717

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.

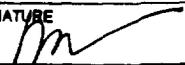
11. WASTE MANAGEMENT.

12. LICENSE FEES (See 10 CFR 170 and Section 170.31)  
 FEE CATEGORY IC AMOUNT ENCLOSED \$ 910-

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

SIGNATURE  DATE 3/14/05

**FOR NRC USE ONLY**

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	
					<u>136623</u>

**NRC FORM 313  
NUCLEAR REGULATORY COMMISSION  
APPLICATION FOR MATERIAL LICENSE  
ITEMS 5-11**

**Item 5 - Radioactive Material**

	<b>Radionuclei</b>	<b>Form</b>	<b>Maximum Amount</b>
5.1	Cesium - 137	Sealed Source Troxler Drawing No. A-102112	Not to exceed 9mCi per source and 180 mCi total
5.2	Americium - 241 Beryllium	Sealed Neutron Source Troxler Drawing No. A-102451	Not to exceed 44 mCi per source and 660 mCi total
5.3	Americium - 241 Beryllium	Sealed Neutron Source Troxler Drawing No. A-100337	Not to exceed 100 mCi per source and 500 mCi total

**Item 6 - Purpose For Which Licensed Material Will Be Used**

Items 5.1 and 5.2 to be used in Troxler Model 3400 Series Density Gauge.

Item 5.2 to be used in Troxler Model 3216 Roof Moisture Gauge.

Item 5.3 to be used in Troxler Model 3241 Asphalt Content Gauge.

Item 5.1 to be used in Troxler Model 4640 Surface Density Gauge.

**Item 7 - Individual Responsible For Radiation Safety Program and Their Training Experience**

Anthony Riggi will be responsible for the radiation safety program as outlined in Item 10. Mr. Riggi has completed the device manufacturer's training course presented by Troxler Electronics. The course name, instructor and date of completion are listed below:

Course Name:	Troxler Electronic Laboratories, Inc. Training Course for the use of Nuclear Testing Equipment
Instructor:	Michael E. Munley
Date of Completion:	February 25, 1985 Certificate No. 9689

Mr. Riggi has fourteen (14) years experience with nuclear gauging devices and has served as our radiation safety officer since 2002. He is qualified by training and experience to use the materials for the purpose requested in such a manner to protect health and minimize danger to life and property.

**Item 8 - Training for Individuals Working In Or Frequenting Restricted Areas**

Each operator or individual will attend and complete wither the Device Manufacturer's Training Program or the training program provided by QC Resource, 19 Tauten Hill Road, Newtown, Connecticut, before being permitted to use the device. The instructor for QC Resource is Mr. Phillip P. Palilla, NRC License No. 06-30125-01. Mr. Palilla was previously an instructor for Troxler Electronic Laboratories. A file of the training certification for each individual will be maintained by the Radiation Safety Officer.

**Item 9 - Facilities and Equipment**

The storage facility is a masonry building located at 1252 Mid Valley Drive in Jessup, Pennsylvania. The devices will be stored within the building in a separate storage room constructed of block with no windows and one locked steel door. The steel door will be the only access to the storage room. The storage room us a minimum of forty (40) feet from any fully occupied area. The key for access to this room will be under the control of the Radiation Safety Officer. Only persons having completed the training program will be allowed access to this room. During transport, the devices will be locked and transported in accordance with the U.S. Department of Transportation Requirements in a approved case which will also be locked.

## **Item 10 - Radiation Safety Program**

### **10.1 Personnel Monitoring Equipment**

All personnel will wear a thermoluminescent dosimeter (TLD) when using the device. The TLD's will be changed at intervals not to exceed three (3) months.

### **10.2 Radiation Detection Instruments**

Radiation survey meters will not be utilized because all personnel will be required to wear a thermoluminescent dosimeter with using the devices.

### **10.3 Leak - Testing**

Leak testing will be performed by the Radiation Safety Officer at six (6) month intervals using a 3880 commercial leak test kit. The leak test kit will be forwarded to Troxler Electronic Laboratories, Inc. 3008 Cornwallis Road, Research Triangle Park, North Carolina for analysis.

### **10.4 Maintenance**

Routine Maintenance will be limited to external cleaning of the device, at which time TLD's will be worn. No maintenance will be performed which would require the radioactive source to be out of the safe shielded position. Any maintenance requiring the radioactive source to be out of the safe shielded position will be performed by the manufacturer of the device.

### **10.5 Transportation of Devices to Field Locations**

Packaging and transport of devices will be performed in accordance with applicable Department of Transportation (DOT) regulations.

## 10.6 Operating and Emergency Procedures

All personnel monitoring will be provided with written operating and emergency procedures to include the following information.

1. **Personal Monitoring** - All personnel will be supplied with their personnel TLD and will be required to wear it when working with the device.
2. **Use of the Device** - All personnel will be supplied with step-by-step procedures for use of the device.
3. **Storage of the Device** - All personnel will be provided with procedures for storage of the device when it is not in use or under the physical surveillance of the user.
4. **Transportation** - All personnel will be provided with procedures for packaging and transporting the device in accordance with all Department of Transportation regulations.
5. **Leak Testing** - Leak testing will be performed by the Radiation Safety Officer at six (6) month intervals.
6. **Emergency Procedures** - All personnel will be provided with procedures and point of contact phone numbers to be used in the even of an emergency situation.

## Item 11 - Waste Management

Disposal of all radioactive material will be limited to transfer of the material to a licensee specifically authorized to possess it.

This is to acknowledge the receipt of your letter/application dated

3/14/2005, and to inform you that the initial processing which includes an administrative review has been performed.

Renewal 37-30210-01  
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

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A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 136623.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.

(FOR LFMS USE)  
INFORMATION FROM LTS

BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

: Program Code: 03121  
: Status Code: 2  
: Fee Category: 3P  
: Exp. Date: 20050531  
: Fee Comments: \_\_\_\_\_  
: Decom Fin Assur Req'd: N  
: .....

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: GEO-SCIENCE ENGINEERING CO., INC.  
Received Date: 20050321  
Docket No: 3033803  
Control No.: 136623  
License No.: 37-30210-01  
Action Type: Renewal

2. FEE ATTACHED

Amount: 891000  
Check No.: 5776

3. COMMENTS

No fee due for  
renewal

Signed Rebecca J. Wood  
Date 3/22/05

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /\_/\_/)

1. Fee Category and Amount: \_\_\_\_\_

2. Correct Fee Paid. Application may be processed for:

Amendment \_\_\_\_\_  
Renewal \_\_\_\_\_  
License \_\_\_\_\_

3. OTHER \_\_\_\_\_  
\_\_\_\_\_

Signed \_\_\_\_\_  
Date \_\_\_\_\_