

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](mailto: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.

**APPLICATION FOR MATERIALS LICENSE**

**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:**

**IF YOU ARE LOCATED IN:**

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

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

*Br 3*  
 MATERIALS LICENSING BRANCH  
 U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
 2443 WARRENVILLE ROAD, SUITE 210  
 LISLE, IL 60532-4352

**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:

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:

*03017525*  
 NUCLEAR MATERIALS LICENSING BRANCH  
 U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
 612 E LAMAR BOULEVARD, SUITE 400  
 ARLINGTON, TX 76011-4125

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

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 47-19387-01

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

*Vecellio + Brogan  
 P.O. Box 2435  
 Beckley WV  
 25802*

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

*Vecellio + Brogan  
 2251 Robert C. Byrd Dr.  
 Beckley, WV  
 25801*

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

*Bob Kennedy*

TELEPHONE NUMBER

*336-442-8832*

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 <i>H.W. Medcalf - Pres. - Construction</i>	SIGNATURE <i>H.W. Medcalf</i>	DATE <i>10/21/10</i>
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**FOR NRC USE ONLY**

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

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

REC'D IN LAT OCT 25 2010

*573804*  
 NMSS/RGN1 MATERIALS-002



VECELLIO  
& GROGAN INC.

Application For Materials License  
License# 47-19387-01

5. Radioactive Material

a. Cesium 137

a. Sealed source. No single source to exceed  
8 millicuries

b. Americium (AM 241:BE)

b. Sealed source. No single source to  
to exceed 40 millicuries

6. Purpose(s) For Which Licensed Material Will Be Used

To be used in a troxler moisture/density gauge for measurement of  
construction materials.

7. Individual Responsible For Radiation Safety Program and Their Training Experience

Robert Kennedy, RSO

Humboldt Scientific, Radiation Safety Course, March 05

Humboldt Scientific, Radiation Safety Office Course, March 05

8. Training For Individuals Working IN or Frequenting Restricted Areas

The RSO will ensure that all users will: 1) be employees of the company 2) have completed the manufacturer's training course 3) have been instructed in Vecellio and Grogan's operating and emergency response procedures and 4) be designated in writing by the RSO prior to using the gauge. The RSO will ensure that records of training for authorized users will be maintained on file for a minimum of three years after the employee leaves the company.

9. Facilities and Equipment

Gauges will be stored in a locked cabinet inside which is located inside of a vault storage area.

OCT 25 PM 12:35

RECEIVED  
REGION 1

10. Radiation Safety Program  
See Attached.

11. Waste Management

Vecellio and Grogan will either 1) transfer the gauge to another specifically licensed individual for that particular type, form, and quantity of radioactive material, 2) transfer the gauge to the manufacturer, or 3) transfer the gauge to a licensed disposal facility.

12. License Fees

Check #65253 for \$3,700 was issued on 6/25/10

## **RADIATION SAFETY PROGRAM FOR Vecellio and Grogan Inc.**

### **General**

This Radiation Safety Plan covers the procedures for the safe and proper use and possession of radioactive material as contained in portable moisture/density gauges used to measure soil and other materials. When handled in accordance with this plan, the radioactive materials present no hazard to the licensee's employees, customers, or the general public.

### **Radiation Safety Officer**

All use and possession is under the direction and supervision of the Radiation Safety Officer (RSO). The RSO is a single point of accountability and responsibility between the Regulatory Agency and the Licensee. The RSO is responsible for all aspects of the Radiation Safety Plan, including the following specific duties.

1. Licensed material possessed by the licensee is limited to the kinds and quantities of byproduct material listed on the license.
2. Individuals using gauges: are properly trained; have read and understand the Radiation Safety Program; receive refresher training at least every three years to include review of operating and emergency procedures (per 10 CFR Part 20), Department of Transportation (DOT) requirements, all changes in regulatory requirements, and deficiencies identified during annual audits; and are designated by the RSO.
3. Personnel monitoring devices are used as required and reports of personnel exposure are reviewed in a timely manner.
4. Gauges are properly secured against unauthorized removal at all times when gauges are not in use.
5. Proper authorities are notified in case of accident, damage to gauges, fire or theft.
6. Audits are performed at least annually to ensure that (a) the licensee is abiding by NRC and DOT regulations and the terms and conditions of the license (e.g., periodic leak tests, inventories, use limited to trained, approved user's), (b) the licensee's radiation protection program content and implementation achieve occupational doses and doses to members of the public that are ALARA (see 10 CFR 20.1101), and (c) the licensee maintains required records with all required information (e.g., records of personnel exposure; receipt, transfer, and disposal of licensed material; gauge user training) sufficient to comply with NRC requirements.
7. Results of audits, identification of deficiencies, and recommendations for change are documented (and maintained for at least 3 years), provided to management for review, and prompt action is taken to correct deficiencies.

8. Audit results and corrective actions are communicated to all personnel who use licensed material (regardless of their location or the license under which they normally work.)
9. To serve as a point of contact and give assistance in case of emergency. All incidents, accidents, and personnel exposure to radiation in excess of ALARA or Part 20 limits are investigated and reported to NRC and other authorities, as appropriate, within required time limits.
10. Licensed material is transported in accordance with all applicable DOT Requirements.
11. The Radiation Safety Officer has up-to-date copies of NRC's regulations, reviews new or amended NRC Regulations, and revises licensee procedures, as needed, to comply with NRC regulations.
12. Licensed material is disposed of properly.
13. To ensure that the equipment is leak tested at the required intervals.
14. The license is amended whenever there are changes in: licensed activities, responsible individuals, or information or commitments provided to NRC in the licensing process.
15. To post all required signs and notices at gauge storage location.
  - Post document RH-2364, Notice to Employees
  - Label storage cabinet with "Caution, Radioactive Material" and international symbol.
  - Post notice of where a copy of the organization's license, safety plan, and copy of regulations are located.

### **Operation**

1. Before removing the gauge from its place of storage, check to make sure that the gauge source rod is in the shielded, locked position, and the transport case is locked.
2. Sign the gauge out on the sign out sheet including the date(s) of use, name(s) of the authorized users who will be responsible for the gauge, and the temporary jobsite(s) where the gauge will be used.
3. Follow all applicable Department of Transportation (DOT) requirements when transporting the gauge.
4. The operator will exercise suitable control over the gauge at all times and maintain constant surveillance. At no time is it to be left unattended or in the possession of an unauthorized person. Always keep unauthorized persons away from the area where the gauge is to be used.
5. To assist operators of heavy equipment in seeing gauges at construction sites, "stake and flag" each gauge where practical, being sure that the flags are tall enough to be seen by heavy equipment operators. (e.g. orange bicycle flag)
6. Never look under the gauge when the source rod is being lowered into the ground.

7. Do not touch the source rod with your fingers, hands, or any part of your body and always make sure the source rod is in the shielded position after each measurement is made.
8. After each measurement, always return the source to the shielded position and lock it there.
9. When not being used for field measurements, the gauge will be locked and returned to its storage/transportation case in a secured storage location.
10. When testing is complete, the gauge will be returned to its permanent place of storage as soon as possible and logged back in on the sign out sheet.
11. When using the equipment, the operator will wear the personnel-monitoring device assigned. Never wear another person's film badge. Never store your film badge near the gauge. When the operator is not using the equipment, the monitoring device will be kept in a radiation free, low heat area.
12. At all times operators will observe ALARA principles to minimize any dose received: As Low As Reasonable Achievable
13. While the equipment is in the operators possession, the operator will have:
  - Copy of the License
  - Copy of this Radiation Safety Plan with Emergency Procedures and Telephone/Call - Down List
  - Copy of Letter of Authorized Users from RSO
  - Copy of the Gauge Operating Manual and
  - Copy of the Current Leak Test Certificate

### **Transportation**

1. During transportation, the equipment shall be fully secured in the transporting vehicle and located away from personnel. When transported in a closed vehicle (car or van), the case will be locked and vehicle will be locked when the operator is not with the vehicle. When transported in an open bed vehicle (pick-up truck), the case will be locked and the case securely fastened and locked to the truck bed when the operator is not with the vehicle.
2. The equipment will only be transported in an approved DOT shipping container with all the required labels and markings.
3. During transportation the operator will have Shipping Papers on the seat adjacent to the driver or in a holder which is mounted to the inside of the door on the driver's side of the vehicle describing the radioactive material with the proper nomenclature. The gauge will be properly blocked and braced in the vehicle so as not to allow it to move around in the moving vehicle.
4. When shipping by common carrier, the package shall be in compliance with 49 CFR 170-179.

## **Maintenance**

1. Periodic maintenance will include checking of the shutter closure prior to use and cleaning of the gauge. The operator will have received proper instruction on how to clean the gauge and will wear his/her assigned monitoring device.
2. When finished the gauge should be cleaned and lubricated. Make sure that all the pieces are with the gauge and in the case. The user manual and shipping papers are back inside the case and not in the vehicle.
3. No maintenance will be performed in which the radioactive source is removed from the gauge. The gauge will be returned to the manufacture or an approved service center for this type of service.
4. A leak test will be performed every six months as stated on the license, using an approved leak test kit provided by Humboldt Scientific, Inc., and in accordance with the gauge manufacturer's instructions. The operator will have received proper instruction on how to leak test the gauge and will wear his assigned monitoring device.
5. The shipping case will be periodically checked for integrity, and to verify that all labels are present and readable.

## **Protection from the Elements**

1. Rain/snow - Make every effort to keep the gauge dry. Once the gauge becomes wet or has built up moisture on the electronics it takes several days for the gauge to completely dry out. If a wet gauge is used, then the results will be erratic.
2. Extreme heat - Make every effect to keep the gauge out of direct sun light during times of extreme heat. Direct exposure to sun on extremely hot days can damage the electronics of the gauge.

The storage case for the gauge is not weather proof. You will need to exercise the same precautions if the gauge is inside the case. If the case does get wet you will need to pull out the packing foam and allow it to fully dry, otherwise it will begin to mildew and allow moisture to build up on the electronics.

## **Records**

Records will consist of:

Personal Monitoring, Leak Test, Training and Gauge Inventory:

(A checkout log will be attached to storage cabinet. Information on log will include serial number of gauge, operator checking out gauge, date checked out, destination, estimated return date, and actual date of return.)

## **Training**

All operators will complete a manufacturer's Operator's Training Course. Operators will be given special training as required for their individual work assignments.

## **Physical Damage**

1. If any moving equipment is involved, stop its movement, until the extent of contamination, if any can be established.
2. Cordon off the area around the incident. An area with a radius of fifteen (15) feet will be sufficient. In some incidents it may be necessary to cordon off a larger area depending on the existing circumstances.
3. The RSO or approved facility will visually inspect the gauge to determine the extent of the damage to the source(s), source housing(s), and shielding.
4. At the earliest possible time, when the situation is under control, contact the RSO. In the event that the RSO is not available, contact one of the other company personnel or agencies listed below. Describe the conditions and follow the instructions of the individual contacted. The RSO or other appropriate individual will immediately notify the appropriate regulatory agency.

## **Emergency Telephone Numbers**

Bob Kennedy - RSO:	Work: 336-605-2832 Ext. Mobile: [REDACTED]
John Riley – Field Safety Mgr.:	Work: 336-442-8872 Mobile: [REDACTED]
Dan Castrodale - Vice President:	Work: 800-255-6575 Mobile: [REDACTED]
Police or Fire: 911	NRC Region II: 404-562-4719
Troxler:	919-549-8661



## **REMINDER TO LICENSEE MANAGEMENT AND RSO:**

1. In the event that there is damage to a source or a gauge, an authorized cleanup facility will remove the damaged equipment after verifying that the source is not leaking and safe to remove.
2. Arrange for survey to be conducted as soon as possible by a knowledgeable person using appropriate radiation detection instrumentation. (This person could be a licensee employee using a survey meter or a consultant.)
3. Make necessary notifications to local authorities as well as the NRC as required. (Even if not required to do so, you may report ANY incident to NRC by calling NRC's Emergency Operations Center at (301) 816-5100, which is staffed 24 hours a day and accepts collect calls. NRC notification is required when gauges containing licensed material are lost and stolen, when gauges are damaged or involved in incidents that result in doses in excess of 10 CFR 20.2203 limits.
4. Timeliness of reports to the NRC needs to be considered.
5. Reporting requirements are found in 10CFR 20.2201-2203 and 10CFR 30.50.

### **Theft or Loss**

Immediately notify the RSO. The RSO will immediately notify the appropriate regulatory agency and the police.

### **Fire**

1. Call the Fire Department. Notify the RSO
2. Stand by to advise the fire fighters as to the nature, locations, and potential hazards of the radioactive materials. Supply them with an information packet consisting of the facility layout and a data sheet of the equipment including a photograph. Be sure to include any other important information. e.g. explosives, guard dogs, etc.
3. Take action appropriate with a fire to protect personnel.

<u>Melting Points:</u>	<u>°F</u>	<u>°C</u>
Stainless Steel	2550	1400
Carbide	2000	1090
Aluminum	1005	540
Lead	620	327
Polyethylene	257	125

Temperatures in an industrial fire will normally range from 500°F at floor level to a high at the ceiling of 1400°F to 1800°F. The polyethylene and lead would melt in most fires, the aluminum only in a severe fire. The stainless steel capsule would not reach its melting point.

**Disposal/Decommissioning**

1. Disposal will only be performed by transferring to a properly licensed organization.
2. The regulatory agency will be notified 30 or more days in advance of any relocation of the storage area. Formal decommissioning will not be required, provided leak tests are current.

**RADIATION SAFETY PLAN**

This radiation safety plan will be implemented at all times. A copy of these procedures shall be maintained in the licensee's radioactive materials license file, and another copy in the shipping case of the nuclear gauge at all times.

Signed:  Date: 4/10/05