Applied Testing & Geosciences, LLC
When Quality Counts

April 30, 2008

P-2

Ms. Marie Miller
Chief, Materials Security Industrial Branch
Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406

L 30701
03037749
03121

(37-30701-02)

RECEIVED REGION 1
2008 MAY -1 AM 11:23

Re: Expedite New License

Dear Marie,

It was a pleasure meeting you and Michael Reichard during our audit in January 2008. As you are aware, Applied Testing & Geosciences, LLC's Material License was transferred to PADEP on March 31, 2008 when Pennsylvania became an Agreement State. Rather than applying for reciprocity, we would like to continue our license with the NRC. Currently, we are in urgent need of an NRC license to allow us to continue our operations in New Jersey and Delaware. Any assistance you can give in processing this application in an expedited manner would be greatly appreciated.

The Application for Materials License is enclosed along with the supporting documentation. We look forward to hearing from you at your earliest convenience. Please call with any questions.

Sincerely,

Melissa A. Heely
RSO

Craig J. Joss, PhD, PE
Vice-President

enc

142352
NMSS/RGN1 MATERIALS-002

401 E. Fourth Street, Bldg 12B, Bridgeport, PA 19405
Phone: 610-313-3227 Fax: 610-313-9667
Email: info@appliedtesting.com Web: www.appliedtesting.com

NRC FORM 313 U.S. NUCLEAR REGULATORY COMMISSION
(10-2005)
10 CFR 30, 32, 33,
34, 35, 36, 39, and 40

APPLICATION FOR MATERIALS LICENSE

APPROVED BY OMB: NO. 3150-0120 EXPIRES: 10/31/2008

Estimated burden per response to comply with this mandatory collection request: 4.4 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 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@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:

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:

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:

L 30701
03037749
03121

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-4005

(37-30701-02)

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)*
   - [X] A. NEW LICENSE
   - [ ] B. AMENDMENT TO LICENSE NUMBER _____
   - [ ] C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include ZIP code)*
   APPLIED TESTING & GEOSCIENCES, LLC
   401 E FOURTH ST, BLDG 12B
   BRIDGEPORT, PA 19405

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED
   401 E FOURTH ST BLDG 12B
   BRIDGEPORT, PA 19405

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION
   MELISSA A. HEELY

   TELEPHONE NUMBER
   610-313-3227

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. maiximum 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 3P | AMOUNT ENCLOSED $ 1400.00

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 CONTANED 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	SIGNATURE	DATE
CRAIG J JOSS, PhD, PE - VICE PRESIDENT		4/30/08

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED $	CHECK NUMBER	COMMENTS
					142352
APPROVED BY				DATE	

APPLICATION FOR MATERIAL LICENSE
NRC FORM 313
U.S. NUCLEAR REGULATORY COMMISSION

Licensing Assistant Section
Nuclear Materials Safety Branch
US Nuclear Regulatory Commission
475 Allendale Rd
King of Prussia, PA 19406-1415

1. THIS IS AN APPLICATION FOR:
New License

2. NAME AND MAILING ADDRESS OF APPLICANT:
Applied Testing & Geosciences, LLC
Craig J. Joss, Ph.D., P.E.
401 E Fourth Street, Bldg 12B
Bridgeport, PA 19405

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR PROCESSED:
Gauges will be stored and dispatched from
401 E Fourth Street, Bldg 12B, Bridgeport, PA 19405
Gauges will be used at temporary job sites.

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION:
Melissa A. Heely Telephone number: 610-313-3227

5. RADIOACTIVE MATERIAL: Please see attached inventory sheet.
Element and mass number: CS-137 and Am/Be-241
Maximum amount which will be possessed at any one time:
CS-137 – 8 mCi, Am/Be-241 – 40 mCi
Each sealed source is approved by NRC. Activity will not exceed max activity listed on approved certificate of registration issued by the NRC.

6. PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED:
Gauges will be used for purposes described in their respective SSD Registration Sheets.

7. INDIVIDUAL RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE:
Melissa A. Heely - Please see attached certificates.
Before obtaining licensed materials, the RSO will have successfully completed one of the training courses described in Criteria in Section entitled "Individual Responsible for Radiation Safety Program and Their Training and Experience –

Radiation Safety Officer" in NUREG-1556, Vol 1. 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Portable Gauge Licenses," dated May 1997.

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

Before using licensed materials, authorized users will have successfully completed one of the training courses described in Criteria in the section entitled "Training for Individuals Working In or Frequenting Restricted Areas" in NUREG-1556, Vol. 1, Rev. 1, dated November 2001. Please see attached certificates of gauge users.

9. No response needed per application.

10. RADIATION SAFETY PROGRAM –INSTRUMENTS:

We possess and use a radiation survey meter that meets the Criteria in the section entitled, " Radiation Program – Instruments" in NUREG-1556, Vol. 1, dated May 1997, in the event of an incident. Please see attached calibration certificate.

RADIATION SAFETY PROGRAM – MATERIAL RECEIPT AND ACCOUNTABILITY:

The Utilization log is cross-checked daily to ensure no gauge is lost, stolen, or misplaced, and if possession exceeds threshold, comply with financial assurance requirements in 10CFR 30.35. We are the process of implementing a scanning program that keeps an online computer log of each gauge, user and time as it is signed in and out on a daily basis.

RADIATION SAFETY PROGRAM – OCCUPATIONAL DOSIMETRY:

Either we will maintain for inspection by NRC, documentation demonstrating that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10 percent of the allowable limits in 10CFR Part 20 or we will provide dosimetry processed and evaluated by a NVLAP-approved processor that is exchanged at a frequency recommended by the processor.

RADIATION SAFETY PROGRAM – OPERATING & EMERGENCY PROCEDURES:

Please see attached Radiation Safety Program with:

- Instructions to maintain security during storage and transportation;
- Instructions to keep the gauge under control and immediate surveillance during use;
- Steps to take to keep radiation exposures ALARA;

- Steps to maintain accountability during use;
- Steps to control access to damaged gauge;
- Steps to take, and whom to contact, when a gauge has been damaged;
- Copies provided to personnel and available at each job site.

RADIATION SAFETY PROGRAM – LEAK TEST:
Leak tests will be performed at intervals approved by NRC or an Agreements State and will be specified in the SSDR Sheet. Leak tests will be performed by an organization authorized by NRC or an Agreement State to provide leak testing services for other licensees or using a leak test kit supplied by an organization authorized by NRC or an Agreements State to provide leak test kits to other licensees and according to the kit supplier's instructions.

RADIATION SAFETY PROGRAM – MAINTENANCE:
ROUTINE CLEANING & LUBRICATION
We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer's recommendations and instructions. The plan considers ALARA; ensures gauge functions as designed; and ensures source integrity not compromised.

Non-Routine Maintenance
We will send the gauge to the manufacturer or other person authorized by NRC or an Agreement State to perform non-routine maintenance or repair operations that require the removal of the source or source rod from the gauge.

11. No response needed per application.

12. LICENSEE FEES: $1400.00
    FEE CATEGORY: 3P
    AMOUNT ENCLOSED: $1400.00

13. CERTIFICATION

CERTIFYING OFFICER – TYPEPRINTED NAME AND TITLE

CRAIG J. JOSS, Ph.D., P.E. – Vice President

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 31, 2008

Docket No. 03035888 License No. 37-30701-01
Control No. 141974

Melissa A. Heely
President
Applied Testing, Geosciences, L.L.C.
401 E. 4th Street
Bridgeport, PA 19405-1421

SUBJECT: APPLIED TESTING, GEOSCIENCES, L.L.C., LICENSE AMENDMENT, CONTROL NO. 141974

Dear Ms. Heely:

By letter dated January 15, 2008, we informed you of the impending Agreement between the U.S. Nuclear Regulatory Commission (NRC) and the Commonwealth of Pennsylvania, whereby, the NRC will relinquish regulatory authority for certain licenses of byproduct, source, and special nuclear material. We also explained that your NRC license, which authorized licensed activities in Pennsylvania and at temporary job sites anywhere in the United States where the NRC maintains jurisdiction (non-Agreement States), required an amendment prior to the transfer. This action is necessary since authorization to conduct licensed activities at temporary job sites in NRC-regulated states will no longer be valid once the Agreement is signed and Pennsylvania assumes regulatory authority.

On January 31, 2008, you informed the NRC that you no longer found it necessary to continue the use of licensed material in States that are under NRC jurisdiction. Therefore, your current NRC license has been amended to remove all locations of use and/or storage in non-Agreement States, leaving all other locations (including temporary job sites, if applicable) which authorize work activities in the Commonwealth of Pennsylvania. Enclosed with this letter is the amended license authorizing work activities only in the Commonwealth of Pennsylvania. The license will eventually be converted to a Commonwealth of Pennsylvania license at the time of the next amendment, renewal, or as determined by the Commonwealth.

After the Agreement is effective, you may conduct work at temporary job sites in non-Agreement States pursuant to 10 CFR 150.20 (i.e., reciprocity). However, please be aware that reciprocity is only allowed for a maximum of 180 days in any calendar year and you are required to file NRC Form 241 for reciprocity with the NRC whenever your work brings you into NRC jurisdiction, or into areas of exclusive federal jurisdiction within an Agreement State. The current application fee for reciprocity is $1,500 per calendar year.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify Ronald Hamm at the Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection at (717) 787-2480.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Thank you for your cooperation.

Sincerely,

Craig Z. Gordon
Senior Health Physicist
Materials Security and Industrial Branch
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 5

NRC FORM 374 U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 5

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	In accordance with the administrative amendment request dated February 15, 2008
1. Applied Testing & Geosciences, L.L.C.	3. License number 37-30701-01 is amended in its entirety to read as follows:
2. 401 E. Fourth Street Building 12B Bridgeport, PA 19405-1421	4. Expiration date December 31, 2011
	5. Docket No. 030-35888 Reference No.

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 sources (Troxler Dwg. A-102112)	A. 9 millicuries per source and 153 millicuries total.
B. Americium 241	B. Sealed neutron sources (Troxler Dwg. A-102451 or C-106580)	B. 44 milicuries per source and 704 millicuries total.
C. Cesium 137	C. Sealed Sources (CPN Model CPN-131)	C. 10 millicuries per source and 40 millicuries total
D. Americium 241	D. Sealed Sources (CPN Model CPN-131)	D. 50 millicuries per source and 200 millicuries total
E. Cesium 137	E. Sealed Sources (HSI Dwg. 2200064)	E. 11 millicuries
F. Americium 241	F. Sealed Sources (HSI Dwg. 2200067)	F. 44 millicuries

9. Authorized use:

A. and B. In Troxler Electronic Laboratories Model Nos. 3411B and 3400 Series portable gauging devices for measuring physical properties of materials.

C. and D. In CPN Model No. MC1 portable gauging devices for measuring physical properties of materials.

E. and F. In Humbolt Scientific Inc. Model No. 5001 portable gauging devices for measuring physical properties of materials.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
37-30701-01

Docket or Reference Number
030-35888

Amendment No.5

CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at 401 E. Fourth Street, Building 12B, Bridgeport, Pennsylvania and may be used at temporary job sites of the licensee anywhere in the Commonwealth of Pennsylvania where the Commonwealth maintains jurisdiction for regulating the use of licensed material. Authorization for use of radioactive materials at job sites under exclusive Federal jurisdiction or in Agreement States shall be obtained from the appropriate regulatory agency.

11. Licensed material shall be used by, or under the supervision and in the physical presence of, individuals who have received the training described in the application dated November 28, 2001.

12. The Radiation Safety Officer for this license is Melissa A. Heely.

13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.

14. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 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.

    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 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 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) 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.

    E. Tests for leakage and/or contamination, limited to leak test sample collection, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is not authorized to perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
37-30701-01

Docket or Reference Number
030-35888

Amendment No.5

F. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.

15. 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.

16. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.

17. 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 or storage, or when not under the direct surveillance of an authorized user.

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. A. If the licensee uses unshielded sealed sources extended more than 3 feet below the surface, the licensee shall use surface casing that extends from the lowest depth to 12 inches above the surface and other appropriate procedures to reduce the probability of the source or probe becoming lodged below the surface. If it is not feasible to extend the casing 12 inches above the surface, the licensee shall implement procedures to ensure that the cased hole is free of obstruction before making measurements.

B. If a sealed source or a probe containing sealed sources becomes lodged below the surface and it becomes apparent that efforts to recover the sealed source or probe may not be successful, the licensee shall notify the U.S. Nuclear Regulatory Commission and submit the report required by 10 CFR 30.50(b)(2) and (c). The licensee shall not abandon the sealed source or probe without obtaining the Commission's prior written consent.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
37-30701-01

Docket or Reference Number
030-35888

Amendment No.5

20. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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 November 28, 2001 (ML013340404)
B. Letter dated January 3, 2002 (ML020040413)
C. Letter dated January 30, 2007 and received September 25, 2007 (ML072700845)

For the U.S. Nuclear Regulatory Commission

Date March 31, 2008

By ***Original signed by Craig Z. Gordon***

Craig Z. Gordon
Materials Security and Industrial Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406
Thursday, March 20, 2008 11:12:31 AM

NRC FORM 591M PART 1
(10-2003)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
Applied Testing, Inc. 401 E. Fourth Street Building 12B Bridgeport, Pennsylvania 19405 REPORT 2007-001	**U.S. Nuclear Regulatory Commission** **Region I, 475 Allendale Road** **King of Prussia, Pennsylvania 19406-1415**

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
030-35888	37-30701-01	9/25/07 - 01/22/08

LICENSEE:

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

☒ 1. Based on the inspection findings, no violations were identified.

☐ 2. Previous violation(s) closed.

☐ 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, NUREG-1600, to exercise discretion, were satisfied.

☐ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):

☐ 4. During this inspection certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

Licensee's Statement of Corrective Actions for Item 4, above.

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

Title	Printed Name	Signature	Date
LICENSEE'S REPRESENTATIVE	MELISSA A. HEELY	Melissa A Heely	1/22/08
NRC INSPECTOR	**Michael Reichard**	Michael C. Reichard	01/22/08

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

MELISSA HEELY

of

APPLIED TESTING, 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 guage storage and transportation.*
8. *General safety precautions.*

Gauge Operation

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

CERTIFICATE #: 097555

GREG FARNEN
Greg Farnen
INSTRUCTOR

2/20/02
DATE

WILLIAM F. TROXLER, JR
PRESIDENT

Certificate of Completion

This certifies that

MELISSA HEELY

has successfully completed the

Troxler Radiation Safety Officer Course

conducted by the training department of

Troxler Electronic Laboratories, Inc.

GREG FARNEN	02/21/02	William F. Troxler, Jr.
Instructor	**Date**	**President**

TROXLER

	Manufacturer	Model #	Serial #	CS-137 Source#	Am/Be-241 Source #	Radioisotope	Qty. (mCi)	Cal Date	Leak Date	Next Cal	Next Leak
1	Troxler	3216	71	n/a	47-4740	n/a	40.0		2/7/2002		
2	Troxler	3401	4057	40-1070	47-01[illegible]	8.0	40.0	09/15/97	2/7/2002		
3	Troxler	3411-B	9619	40-6870	47-6050	8.0	40.0	11/19/07	11/19/2007	11/18/2008	5/17/2008
4	Troxler	3411-B	9805	40-7157	46-1187	8.9	40.0	09/10/97	2/7/2002		
5	Troxler	3411-B	11876	40-9431	47-7118	7.8	40.0	09/08/06	9/21/2007	9/8/2007	3/19/2008
6	Troxler	3411-B	12077	40-9591	47-7372	7.4	40.0	04/01/97	2/7/2002		
7	Troxler	3411-B	12078	40-9674	47-7373	8.0	40.0	06/11/07	4/30/2008	6/10/2008	10/27/2008
8	Troxler	3411-B	13276	50-1665	47-8789	7.6	40.0	10/22/97	2/7/2002		
9	Troxler	3411-B	13819	750-907	47-5922	8.0	40.0	04/01/97	2/7/2002		
10	Troxler	3411-B	14050	50-2280	47-9611	8.0	40.0	11/19/07	4/30/2008	11/18/2008	10/27/2008
11	Troxler	3411-B	14244	50-2856	47-9405	8.0	40.0	11/19/07	4/30/2008	11/18/1908	10/27/2008
12	Troxler	3411-B	14260	50-2875	47-9421	8.0	40.0	02/12/08	2/12/2008	2/11/2009	8/10/2008
13	Troxler	3411-B	15522	50-4483	47-10915	8.0	40.0	06/19/07	4/30/2008	6/18/2008	10/27/2008
14	Troxler	3411-B	15523	50-4484	47-10917	8.0	40.0	03/01/97	2/7/2002		
15	Troxler	3411-B	15651	50-4733	47-11047	8.0	40.0	08/08/94	2/7/2002		
	Troxler	3411-B	15652	50-4734	47-11048	8.0	40.0	03/16/07	4/30/2008	3/15/2008	10/27/2008
	Troxler	3440	21496	75-3021	47-17741	8.0	40.0	06/11/07	5/11/2008	6/10/2008	11/7/2008
[illegible]	Troxler	3440	35621	77-2676	78-580	8.0	40.0	02/08/07	4/30/2008	2/8/2008	10/27/2008
19	Humboldt	H5001C	2103	3355GQ	NJ02151			10/04/05	9/28/2005		
20	Campbell Pacific Nuclear	MCI-1	M14065499	C7480	A7480				2/7/2002		
21	Campbell Pacific Nuclear	MCI-1	M17037480	CS581	AM491				2/7/2002		
22	Campbell Pacific Nuclear	MCI-1	M19062786	C5499	A5499				2/7/2002		
23	Troxler	3411-B	9028	40-6336	47-5497	7.6	40.0	05/06/05	5/5/2005	5/6/2006	11/1/2005

stolen
In use
out for repair / calibration

Designer and Manufacturer of Scientific and Industrial Instruments

LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

CERTIFICATE OF CALIBRATION

CUSTOMER APPLIED TESTING & GEOSCIENCES ORDER NO. 288357 / 319988

Mfg. Ludlum Measurements, Inc. Model 3 Serial No. 43296

Mfg. Ludlum Measurements, Inc. Model 44-7 Serial No. PR 029189

Cal. Date 2-Dec-07 Cal Due Date 2-Dec-08 Cal. Interval 1 Year Meterface 202-049

heck mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 73 °F RH 29 % Alt 704.8 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck. (Min. Volt) 2.2 VDC

☐ Calibrated in accordance with LMI SOP 14.8 rev 12/05/89. ☑ Calibrated in accordance with LMI SOP 14.9 rev 02/07/97.

strument Volt Set 900 V Input Sens. 26 mV Det. Oper. 900 V at 26 mV Threshold Dial Ratio ____ = ____ mV

☐ HV Readout (2 points) Ref./Inst. ____ / ____ V Ref./Inst. ____ / ____ V

COMMENTS:

amma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING*
X 100	150mR/hr	1.5	1.5
X 100	50mR/hr	0.5	0.5
X 10	15mR/hr	1.45	1.5
X 10	5mR/hr	0.5	0.55
X 1	1.5mR/hr= 3150cpm	1.4	1.5
X 1	1.0mR/hr	0.9	1.0
X 0.1	315 cpm	1.4	1.5
X 0.1	105 cpm	0.45	0.5

*Uncertainty within ± 10% C.F. within ± 20% X0.1 **Range(s) Calibrated Electronically**

	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*		REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING*
igital eadout				Log Scale			

dium Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of her International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. e calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323-1978 State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: ☐ S-394/1122 ☐ 1131 ☐ 781

Cs-137 Gamma S/N ☐ 1162 ☑ G112 ☐ M565 ☐ 5105 ☐ T1008 ☐ T879 ☐ E552 ☑ E551 ☐ 720 ☐ 734 ☐ 1616 ☐ Neutron Am-241 Be S/N T-304

☐ Alpha S/N ____ ☐ Beta S/N ____ ☐ Other ____

☑ m 500 S/N 125489 ☐ Oscilloscope S/N ____ ☑ Multimeter S/N 68260348

Calibrated By: Wes Alvarado Date 2 Dec 07

Reviewed By: Rhonda Harris Date 2 Dec 07

FORM C22A 01/24/2007

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed: ____

Designer and Manufacturer of Scientific and Industrial Instruments

Work Order: 288357

TAG #: 319988

LUDLUM MEASUREMENTS, INC
POST OFFICE BOX 810 PH: 325-235-5494
501 OAK STREET FAX: 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

Date Received: 11/27/2007 **Received Via:** UPS **Condition Received:** FAIR

SHIP TO:
APPLIED TESTING & GEOSCIENCES
401 E FOURTH ST / BLDG 12B
BRIDGEPORT PA 19405
USA

BILL TO:
APPLIED TESTING INC
ACCOUNTS PAYABLE
401 E FOURTH ST / BLDG 12B
BRIDGEPORT PA 19405
USA

CUSTOMER #: 17307

Reason for Return: Calibration **Cal Interval \ Special Instructions:** 1YR

Comments:
Clear Batt Cont
Cal Inst

ITEM	QTY	PART #	DESCRIPTION	PRICE	COST
01*	1.00 EA	3	M 3 FOR REPAIR/CAL *43296		
02*	1.00 EA	44-7	M 44-7 FOR REPAIR/CAL *PR029189		
03*	1.00 EA	C	'C' CABLE		

ITEM	QTY	PART #	DESCRIPTION	PRICE	C
1	2	21-9313	D Battery	N/C	

Instrument Calibrated: 1 at 60

Secondary Detectors: at

Extended Calibration: at

Labor: hour(s) at $ per hour

Total Parts Cost:

Total Calibration Charge: 60.00

Total Labor:

Sub Total Calibration, Parts, and Labor: 60.00

Shipping Charges:

Sales Tax: —

Total Charges:

Signed: [signature] Date: 2 Dec 07

QC Released [signature] Date: 2 Dec 07

DO NOT PAY! INVOICE TO FOLLOW

Date: 12/03/07 Contacted: MELISSA HEELY By:

PO Number: 071119-02 Return Ship: NB Phone #: 610-313-3227

Certificate of Completion

This certifies that

Lawrence J Bamford

has successfully completed the

Nuclear Gauge Safety Training Class

conducted by the training department of

Troxler Electronic Laboratories, Inc.

Harvey Dunlevy

Harvey Dunlevy
Instructor

4/18/2006
Date

William F. Troxler, Jr.
President

TROXLER
Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Rd. • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • Web site: www.troxlerlabs.com

Enrollment ID: **18673**

Compliance Solutions

"Today's Training... Tomorrow's Solution"

10515 E 40th Ave, Suite 116, Denver Colorado 80239 800-711-2706

Student Affiliation:
Applied Testing & Geosciences, LLC
99024832

Certificate of Completion

This is to certify that

Lawrence Bamford

has successfully completed the classroom requirements for

8 Hour HAZWOPER Refresher

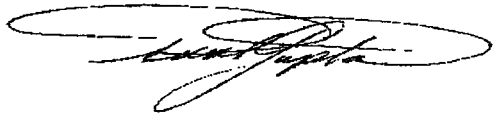
29 CFR 1910.120(e)

Presented

Monday, June 11, 2007

Compliance Solutions Occupational Trainers, Inc.

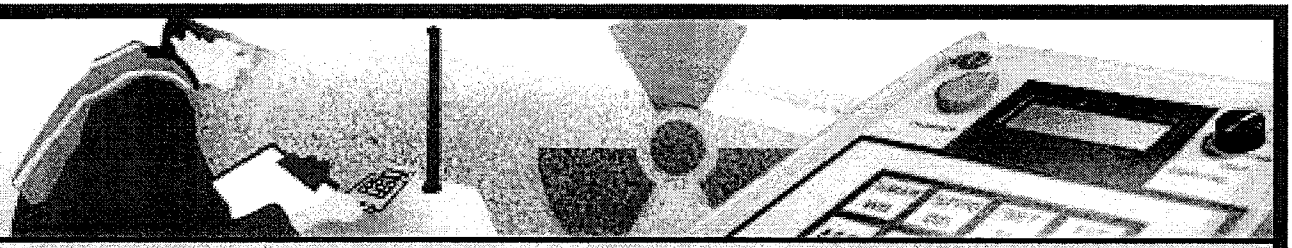
Certificate Number: 7542649



Neval Gupta
Vice President

Jeffrey Kline
President/CEO

NUCLEAR GAUGE TRAINING ONLINE



September 26, 2007

NuclearGaugeTraining.com 866-868-2382

Portable Gauge Safety Training

Benjamin Bergman

Has successfully completed training in accordance with policies set forth by the following rules and regulations governing portable nuclear moisture/density gauges and transportation requirements: NUREG 1556 and 49CFR subpart H and IATA 1.5.2.

A closed book examination was administered and a passing score was achieved. The person listed above has demonstrated a thorough understanding of all aspects needed for transportation, with specific emphasis placed on portable nuclear density gauges. This certificate is only valid if signed by a Radiation Safety Officer verifying that further hands on training will be conducted under direct supervision of an authorized user prior operating the gauge alone.

Subjects included in this course were: Radiological safety/principles, practices of radiation protection, leak-testing procedures, measurement of radioactivity, biological effect of radiation, incident, storage, ALARA, emergency procedures and security awareness.

Melissa A Hurley, RSO

RADIATION SAFETY OFFICER

Certificate of Completion

This certifies that

Matt Bergman

has successfully completed the

Nuclear Gauge Safety Training Class

conducted by the training department of

Troxler Electronic Laboratories, Inc.

Harvey Dunlevy

Harvey Dunlevy
Instructor

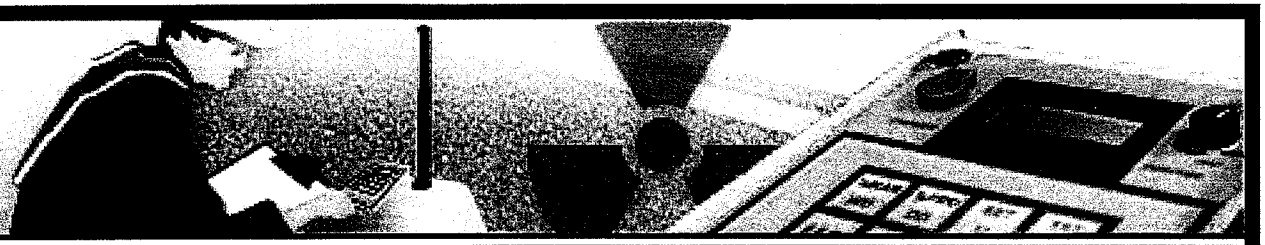
1/24/2007
Date

William F. Troxler, Jr.
President

TROXLER
Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Rd. • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • Web site: www.troxlerlabs.com

Enrollment ID: **21910**

NUCLEAR GAUGE TRAINING ONLINE



April 28, 2008

NuclearGaugeTraining.com ☘ 866-868-2382

Portable Gauge Safety Training

theodore diehl

Has successfully completed training in accordance with policies set forth by the following rules and regulations governing portable nuclear moisture/density gauges and transportation requirements: NUREG 1556 and 49CFR subpart H and IATA 1.5.2.

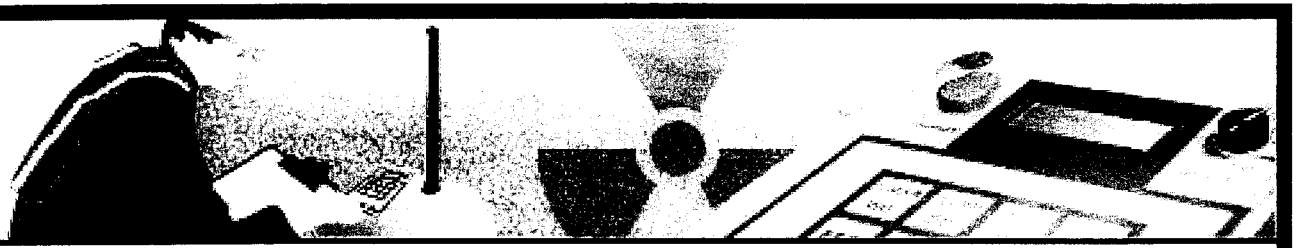
A closed book examination was administered and a passing score was achieved. The person listed above has demonstrated a thorough understanding of all aspects needed for transportation, with specific emphasis placed on portable nuclear density gauges. This certificate is only valid if signed by a Radiation Safety Officer verifying that further hands on training will be conducted under direct supervision of an authorized user prior operating the gauge alone.

Subjects included in this course were: Radiological safety/principles, practices of radiation protection, leak-testing procedures, measurement of radioactivity, biological effect of radiation, incident, storage, ALARA, emergency procedures and security awareness.

Melissa A Hurley RSO

RADIATION SAFETY OFFICER

NUCLEAR GAUGE TRAINING ONLINE



August 10, 2007

NuclearGaugeTraining.com ☘ 866-868-2382

Jacob Greer

Has successfully completed training in accordance with policies set forth by the following rules and regulations governing portable nuclear moisture/density gauges and transportation requirements: NUREG 1556 and 49CFR subpart H and IATA 1.5.2.

A closed book examination was administered and a passing score was achieved. The person listed above has demonstrated a thorough understanding of all aspects needed for transportation, with specific emphasis placed on portable nuclear density gauges. This certificate is only valid if signed by a Radiation Safety Officer verifying that further hands on training will be conducted under direct supervision of an authorized user prior operating the gauge alone.

Subjects included in this course were: Radiological safety/principles, practices of radiation protection, leak-testing procedures, measurement of radioactivity, biological effect of radiation, incident, storage, ALARA, emergency procedures and security awareness.

Melissa A Hurley, RSO

RADIATION SAFETY OFFICER

Certificate of Completion

This certifies that

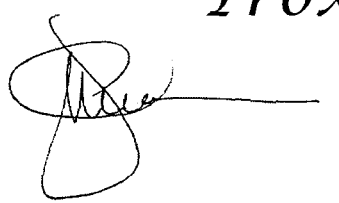
Daniel P Hager

has successfully completed the

Nuclear Gauge Safety Training Class

conducted by the training department of

Troxler Electronic Laboratories, Inc.



George Marshall
Instructor

11/14/2006
Date

William F. Troxler, Jr.
President

TROXLER
Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Rd. • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • Web site: www.troxlerlabs.com

Enrollment ID: **21027**

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

JOHN HEELY

of

GOLDER ASSOCIATES

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 guage storage and transportation.*
8. *General safety precautions.*

Gauge Operation

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

Certificate # : **50381**

Harvey Dunlevy
INSTRUCTOR

9/25/91
DATE

William F. Troxler
PRESIDENT

Compliance Solutions

"Today's Training... Tomorrow's Solution"

10515 E 40th Ave, Suite 116, Denver Colorado 80239 800-711-2706

Student Affiliation:
Applied Testing & Geosciences, LLC
99024832

Certificate of Completion

This is to certify that

John Heely

has successfully completed the classroom requirements for

8 Hour HAZWOPER Refresher

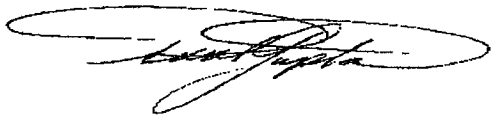
29 CFR 1910.120(e)

Presented

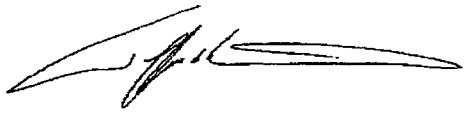
Thursday, September 06, 2007

Compliance Solutions Occupational Trainers, Inc.

Certificate Number: 75468243

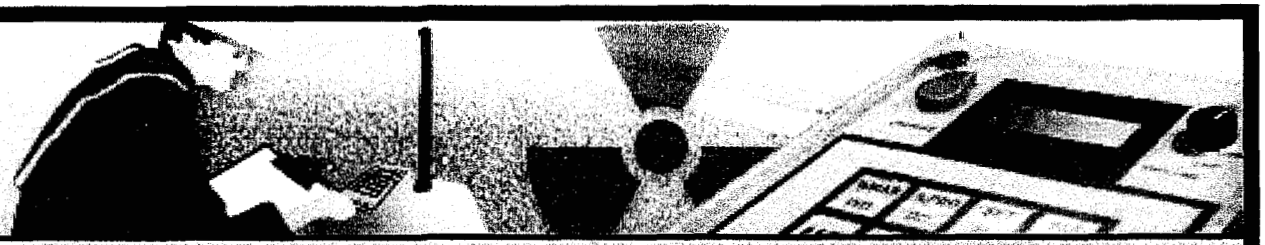


Neval Gupta
Vice President



Jeffrey Kline
President/CEO

NUCLEAR GAUGE TRAINING ONLINE



April 28, 2008

NuclearGaugeTraining.com 866-868-2382

Portable Gauge Safety Training

Alexander Hegyi

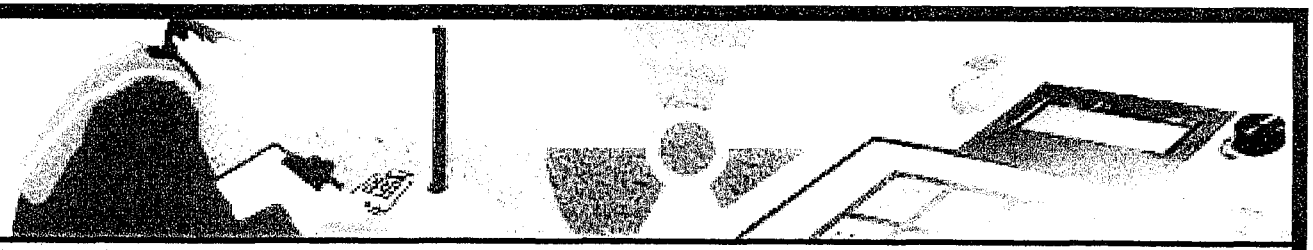
Has successfully completed training in accordance with policies set forth by the following rules and regulations governing portable nuclear moisture/density gauges and transportation requirements: NUREG 1556 and 49CFR subpart H and IATA 1.5.2.

A closed book examination was administered and a passing score was achieved. The person listed above has demonstrated a thorough understanding of all aspects needed for transportation, with specific emphasis placed on portable nuclear density gauges. This certificate is only valid if signed by a Radiation Safety Officer verifying that further hands on training will be conducted under direct supervision of an authorized user prior operating the gauge alone.

Subjects included in this course were: Radiological safety/principles, practices of radiation protection, leak-testing procedures, measurement of radioactivity, biological effect of radiation, incident, storage, ALARA, emergency procedures and security awareness.

Melissa Allday, RSO

RADIATION SAFETY OFFICER



August 1, 2007

NuclearGaugeTraining.com 866-868-2382

Phil Howard

Has successfully completed training in accordance with policies set forth by the following rules and regulations governing portable nuclear moisture/density gauges and transportation requirements: NUREG 1556 and 49CFR subpart H and IATA 1.5.2.

A closed book examination was administered and a passing score was achieved. The person listed above has demonstrated a thorough understanding of all aspects needed for transportation, with specific emphasis placed on portable nuclear density gauges. This certificate is only valid if signed by a Radiation Safety Officer verifying that further hands on training will be conducted under direct supervision of an authorized user prior operating the gauge alone.

Subjects included in this course were: Radiological safety/principles, practices of radiation protection, leak-testing procedures, measurement of radioactivity, biological effect of radiation, incident, storage, ALARA, emergency procedures and security awareness.

Melissa A. Daly

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

STELIAN IANULI

of

APPLIED TESTING, 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 guage storage and transportation.*
8. *General safety precautions.*

Gauge Operation

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

CERTIFICATE #: 097556

GREG FARNEN
Greg Farnen
INSTRUCTOR

2/20/02
DATE

WILLIAM F. TROXLER, JR
PRESIDENT

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

CRAIG J. JOSS

of

AMBRIC ENGINEERING

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*

Philip C. Palilla
INSTRUCTOR

02/23/87
DATE

W.F. Troxler
PRESIDENT

№ 18583

Certificate of Completion

This certifies that

CRAIG JOSS

has successfully completed the

Troxler Radiation Safety Officer Course

conducted by the training department of

Troxler Electronic Laboratories, Inc.

GREG FARNEN	02/21/02	William F. Troxler, Jr.
Instructor	**Date**	**President**

TROXLER

Certificate of Completion

This certifies that

Terry Kennedy

has successfully completed the

Nuclear Gauge Safety Training Class

conducted by the training department of

Troxler Electronic Laboratories, Inc.

Harvey Dunlevy

Harvey Dunlevy
Instructor

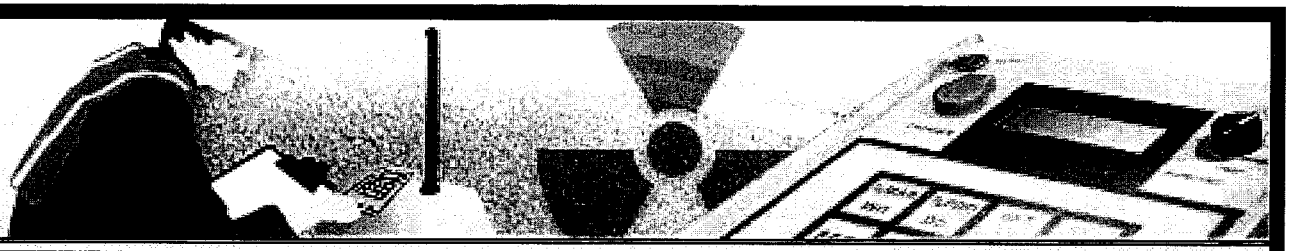
4/18/2006
Date

William F. Troxler, Jr.
President

TROXLER
Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Rd. • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • Web site: www.troxlerlabs.com

Enrollment ID: **18324**

NUCLEAR GAUGE TRAINING ONLINE



October 8, 2007

NuclearGaugeTraining.com ☘ 866-868-2382

Portable Gauge Safety Training

John Neel

Has successfully completed training in accordance with policies set forth by the following rules and regulations governing portable nuclear moisture/density gauges and transportation requirements: NUREG 1556 and 49CFR subpart H and IATA 1.5.2.

A closed book examination was administered and a passing score was achieved. The person listed above has demonstrated a thorough understanding of all aspects needed for transportation, with specific emphasis placed on portable nuclear density gauges. This certificate is only valid if signed by a Radiation Safety Officer verifying that further hands on training will be conducted under direct supervision of an authorized user prior operating the gauge alone.

Subjects included in this course were: Radiological safety/principles, practices of radiation protection, leak-testing procedures, measurement of radioactivity, biological effect of radiation, incident, storage, ALARA, emergency procedures and security awareness.

Melissa A Neely RSO

RADIATION SAFETY OFFICER

Certificate of Completion

This certifies that

Jamie Pinto

has successfully completed the

Nuclear Gauge Safety Training Class

conducted by the training department of

Troxler Electronic Laboratories, Inc.

Harvey Dunlevy

Harvey Dunlevy
Instructor

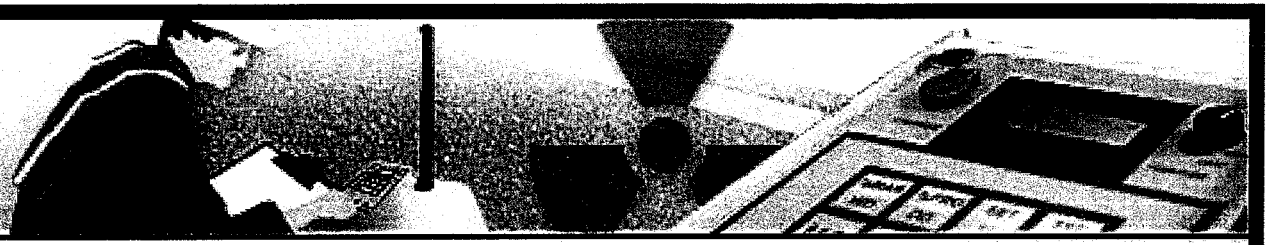
4/18/2006
Date

William F. Troxler, Jr.
President

TROXLER
Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Rd. • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • Web site: www.troxlerlabs.com

Enrollment ID: **18323**

NUCLEAR GAUGE TRAINING ONLINE



November 28, 2007

NuclearGaugeTraining.com 866-868-2382

Portable Gauge Safety Training

Thomas C. Smith

Has successfully completed training in accordance with policies set forth by the following rules and regulations governing portable nuclear moisture/density gauges and transportation requirements: NUREG 1556 and 49CFR subpart H and IATA 1.5.2.

A closed book examination was administered and a passing score was achieved. The person listed above has demonstrated a thorough understanding of all aspects needed for transportation, with specific emphasis placed on portable nuclear density gauges. This certificate is only valid if signed by a Radiation Safety Officer verifying that further hands on training will be conducted under direct supervision of an authorized user prior operating the gauge alone.

Subjects included in this course were: Radiological safety/principles, practices of radiation protection, leak-testing procedures, measurement of radioactivity, biological effect of radiation, incident, storage, ALARA, emergency procedures and security awareness.

Melissa A Hurley, RSO

RADIATION SAFETY OFFICER

Compliance Solutions

"Today's Training... Tomorrow's Solution"

10515 E 40th Ave, Suite 116, Denver Colorado 80239 800-711-2706

Student Affiliation:
Applied Testing & Geosciences, LLC
99024832

Certificate of Completion

This is to certify that

Thomas Smith

has successfully completed the classroom requirements for

8 Hour HAZWOPER Refresher

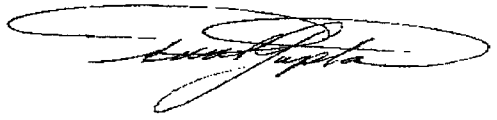
29 CFR 1910.120(e)

Presented

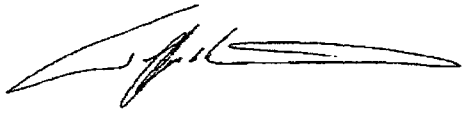
Tuesday, May 08, 2007

Compliance Solutions Occupational Trainers, Inc.

Certificate Number: 7539277

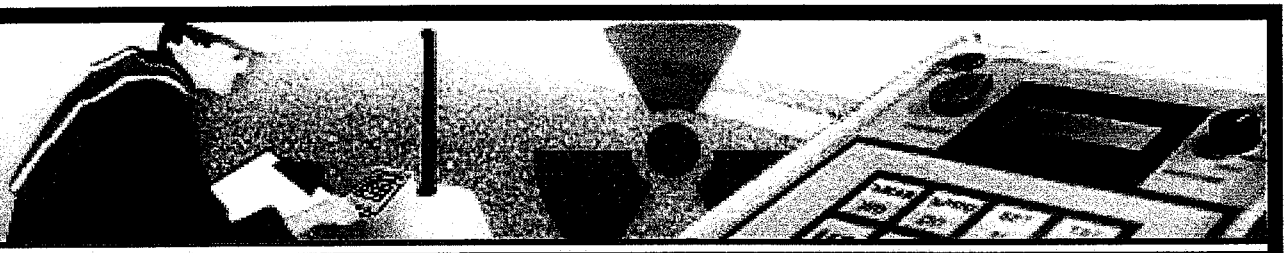


Neval Gupta
Vice President



Jeffrey Kline
President/CEO

NUCLEAR GAUGE TRAINING ONLINE



April 28, 2008

NuclearGaugeTraining.com 866-868-2382

Portable Gauge Safety Training

Jason Taras

Has successfully completed training in accordance with policies set forth by the following rules and regulations governing portable nuclear moisture/density gauges and transportation requirements: NUREG 1556 and 49CFR subpart H and IATA 1.5.2.

A closed book examination was administered and a passing score was achieved. The person listed above has demonstrated a thorough understanding of all aspects needed for transportation, with specific emphasis placed on portable nuclear density gauges. This certificate is only valid if signed by a Radiation Safety Officer verifying that further hands on training will be conducted under direct supervision of an authorized user prior operating the gauge alone.

Subjects included in this course were: Radiological safety/principles, practices of radiation protection, leak-testing procedures, measurement of radioactivity, biological effect of radiation, incident, storage, ALARA, emergency procedures and security awareness.

Melissa A Hurley, RSO

RADIATION SAFETY OFFICER

Certificate of Completion

This certifies that

Michael Wysocki

has successfully completed the

Nuclear Gauge Safety Training Class

conducted by the training department of

Troxler Electronic Laboratories, Inc.

Harvey Dunlevy	**8/9/2005**	*William F. Troxler, Jr.*
Instructor	**Date**	**President**

Troxler Electronic Laboratories, Inc.
PO Box 12057 • 3008 Cornwallis Rd. • Research Triangle Park, NC 27709
Phone: (919) 549-8661 • Fax: (919) 549-0761 • Web site: www.troxlerlabs.com

Enrollment ID: **14961**

Applied Testing & Geosciences, LLC
When Quality Counts

RADIATION SAFETY PROGRAM 2008

APPROVED BY:
Melissa A. Heely, RSO

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TOPIC **PAGE #**

RADIATION SAFETY PROGRAM RECEIPT FORM

On _____,

20____, I, _____

received a copy of the attached safety program. Since that time, I have read and completely understand the topics discussed in this document. I hereby agree to abide by the RADIATION SAFETY PROGRAM as stated in this document.

_____

Signature

_____

Date

_____

RSO Signature

INTRODUCTION

The purpose of this **RADIATION SAFETY PROGRAM** is to provide the gauge operator with a general understanding of the gauge's byproduct (radioactive material), characteristics and occupational exposure. Presented in this document are guidelines for safe handling of nuclear gauges (Radiation Safety) and emergency procedures to follow in case of accident.

1. BY-PRODUCT INFORMATION

- Cesium-137. A sealed / encapsulated source which decomposes into Gamma radiation, a highly penetrating form of electromagnetic radiation used to measure density.

- Americium-241/ Beryllium. A sealed / encapsulated source which decomposes to free neutrons and is used to measure moisture.

- Source encapsulation. To meet the requirements as "Special Form", the radioactive material must be encapsulated to prevent contamination. The first encapsulation is provided for in that the metallic Cesium material is an integral part of a glass bead. The glass bead is then fusion welded inside a stainless steel capsule. This source capsule is fusion welded into the source rod to provide for a triple encapsulation.

  The Americium 241/ Beryllium material is compressed into pellet form. This pressed pellet is fusion welded in two separate stainless steel capsules and is contained within the instrument in another stainless steel housing embedded in lead. The activity of these sources is a nominal 8 milliCuries of Cesium-137 and a nominal 40 milliCuries of Americium-241 Beryllium.

2. OCCUPATIONAL RADIATION EXPOSURE LIMITATIONS

According to 10 CFR 20.1502 and 20.1302, personal monitoring equipment is to be used by individuals entering restricted areas, or are using byproduct equipment. The following are the current limitations specified in 10 CFR 20.1201(a), 20.1207, 20.1208 and 20.1301.

- An annual exposure limit equivalent to 5 rems.
- The sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 50 rems
- The annual limits to the lens of the eye, to the skin and to the extremities, which are an eye dose equivalent of 15 rems
- A shallow dose equivalent of 50 rems to the skin or to any extremity.
- The annual occupational dose limits for minors (A person under 18 years of age) is 10% of the annual dose limits specified for adult workers. FOR THE PROTECTION AND SAFETY OF THE MINOR, ANYONE UNDER THE AGE OF 18 IS NOT ALLOWED TO OPERATE OR BE NEAR THE GAUGE.
- The dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman is 0.5 rem. FOR PROTECTION AND SAFETY OF THE PREGNANT WOMAN; ONCE THE PREGNANCY IS DECLARED IN WRITING OR VERBALLY, THAT WOMAN IS NOTALLOWED TO WORK WITH OR BE NEAR THE GAUGES.

- The total effective dose equivalent to individual members of the public from the operations does not exceed 0.1 rem in a year.
- The dose in any unrestricted area from external sources does not exceed 0.002 rem in any one hour
- If an individual were continuously present in an unrestricted area, the dose from external sources would not exceed 0.002 rem in an hour and 0.05 rem in a year.

Radiation exposure associated with the Troxler 3400 series or the Campbell Pacific gauges is relatively low. Under average conditions a full time operator working 40 hours a week can expect to receive about 4 mRem per week or 50 mRem per quarter.

Regardless of this, operators shall be mindful of the concept of "ALARA." Always keep your radiation exposure "As Low As Reasonably Achievable."

3. MEANS OF LIMITING EXPOSURE

No matter how low the exposure rate, if means are available to limit the exposure, they should be used. In radiation safety, there are ways to limit or reduce exposure. These are time, distance and shielding.

A. TIME: Radiation exposure is denoted as an exposure level per time. For example, if a person were to place his or her hand on the back surface of the gauge for 1-hour, the exposure to the hand would be 15 milliRems. If the hand were held on the gauge for 30-minutes, the exposure would be 7.5 milliRems. The longer a person stays in a radiation field, the greater the exposure. In using the nuclear gauges, exposure is lowered by being with the gauge only for the time required to take the measurement.

B. DISTANCE: Radiation exposure decreases significantly over distance. For example, if we had a source of radiation that at 2 feet has a level of 10 milliRems per hour. The same source at 4 feet would have a level of 2.5 milliRems per hour. When using the nuclear gauges one should stand only as close as necessary to see the display. In transporting the gauge, keep the gauge in the cargo compartment of the vehicle, thereby increasing the distance from the source. When the gauge is not in use, store it in a safe place away from normal traffic.

C. SHIELDING: An additional means of decreasing radiation exposure is to place something between you and the source to stop the radiation. In the nuclear gauges, the Americium-241/Beryllium neutron source is sufficiently low in neutron output to negate the need for shielding. For the Cesium-137 gamma source, when the gauge is in the shielded or "SAFE" position, the source is completely encased by a tungsten shield. For practical use of the gauge, no other shielding methods are necessary.

4. COMPANY COMMITMENT:

It is the company commitment that personnel will be provided with the radiation safety program to facilitate the understanding of our program and the NRC rules and regulations and the State of Pennsylvania – Bureau of Radiation (PADEP) rules and regulations.

5. GENERAL

A. Only authorized personnel may operate nuclear gauges or roof moisture gauges. Authorized personnel are those certified technicians who have:

- Attended the approved Certification Training seminar.
- Shown a good working knowledge and level of comprehension of radiological safety and safety procedures.
- Exhibited to the RSO or Field Services Manager during field training, the knowledge of regulations and operation procedures.
- Permissible radiation exposure histories.
- Proof that the operator is over the age of 18 years and not be considered a minor.
- Written admission of not being pregnant or nursing mother.

DECLARATION OF PREGNANCY

I hereby voluntarily declare that I am pregnant.

My best estimate of the date of conception is _____.
(MM/DD/YY)

While this declaration is in effect, I agree to abide by all restrictions deemed necessary by my employer to keep the occupational exposure to my unborn child below 500 mRem. This may include accepted reassignment to a different job at equal pay for the duration of the pregnancy.

I understand that I may revoke this declaration at any time by providing written notification to the Radiation Safety Officer.

Name _____ SSN _____
(please print)

Signature _____ Date _____

TO BE COMPLETED BY RADIATION SAFETY OFFICER

Received by _____ Date _____
(Radiation Safety Officer)

1. Dose estimate for period from conception to declaration: _____ mRem.
2. Dose that may be received during remainder of pregnancy: _____ mRem.
3. Likely to receive >50 mRem during pregnancy? Yes _____ No _____
   (If yes, monitoring required.)

B. All operations shall be conducted under the supervision of the RSO.

6. DUTIES AND RESPONSIBILITIES OF THE RADIATION SAFETY OFFICER

"The Radiation Safety Officer (RSO) duties and responsibilities will be those listed in Appendix C of the NRC Regulatory Guide (Draft Regulatory Guide DG-0008)."

The Radiation Safety Officer (RSO) is responsible for implementing the radiation safety program and ensuring that radiation safety activities are performed in accordance with approved procedures and regulatory requirements.

The RSO's duties and responsibilities include:

1. Ensure that licensed material possessed by Applied Testing & Geosciences, LLC is limited to the kinds (e.g., Cesium-137 as a sealed source) and quantities of byproduct material listed on the license.
2. Ensure that individuals using gauges are properly trained; are designated by the RSO; receive refresher training at least annually, including participation in a "dry run" of emergency procedures and review of operating and emergency procedures and Department of Transportation (DOT) requirements; and are informed of all changes in regulatory requirements and deficiencies identified during annual audits.
3. Ensure that dosimetry badges are used as required and reports of personnel exposure are reviewed in a timely manner.
4. Ensure that gauges are properly secured against unauthorized removal at all times when gauges are not in use.
5. Ensure that proper authorities are notified in case of accident, damage to gauges, fire or theft.
6. Ensure that audits are performed at least annually to ensure that:
    a) Applied Testing & Geosciences, LLC is abiding by PADEP, NRC and DOT regulations and the terms and conditions of the license, e.g. periodic leak tests, inventories, use is limited to trained, approved Applied Testing & Geosciences, LLC employees only.
    b) That Applied Testing & Geosciences, LLC's radiation protection program content and implementation achieve occupational doses and doses to members of the public that are ALARA (10 CFR 20.1101), and
    c) That Applied Testing & Geosciences, LLC 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 PADEP and NRC requirements.
7. Ensure that results of audits, identification of deficiencies and recommendations for change are documented (and maintained for at least 3 years) and provided to management for review; ensure that prompt action is taken to correct deficiencies.
8. Ensure that audit results and corrective actions are communicated to all personnel who use licensed material.
9. In case of accident involving one of the gauges proceed immediately to the site and take charge of the situation. Take the radiation detector to determine if any leakage is occurring. Ensure that 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 the required time limits.

10. Ensure that the licensed material is transported in accordance with all applicable DOT requirements.
11. Ensure that licensed material is disposed of properly.
12. Ensure that he or she has up to date copies of PADEP's and NRC's license procedures as needed to comply with PADEP and NRC regulations.
13. Ensure that the license is amended whenever there are changes in licensed activities, responsible individuals, or information or commitments provided to NRC in the licensing process.
14. Report accidents in the following order as deemed necessary: RSO, Backup RSO, President, maker of the gauge, if necessary, contact the authorities for radiation protection:

Contacting the Radiation Control Division in Harrisburg:
Ray Urciuolo, Radiation Control Division Chief
Ron Hamm, Radioactive Materials Section Chief
Joe Melnic, X-Ray and Accelerator Section Chief
Phone: (717) 787-3720
Fax: (717) 783-8965

Southeast Region Office (Norristown)
Southeast Regional Office also serves Northeastern Region
(484) 250-5900

Terry Derstine
(484) 250-5854

NRC
Region I
475 Allendale Rd
King of Prussia, PA 19406
Telephone: (610) 337-6952
NRC Emergency Operations Center: (301) 816-5100

7. STANDARD OPERATING PROCEDURES

7.1 OPERATING PROCEDURES

1. Always wear your assigned thermoluminescent dosimeter (TLD) when using the gauge.
2. Never wear another person's TLD.
3. Never store your TLD near the gauge.
4. Before removing the gauge from its place of storage, check to make sure that the gauge source rod is in the shielded, locked position, then lock the gauge and lock the transport case.
5. Sign the gauge out in the Utilization Log Sheet, stating the dates of use, name of user who will be responsible for the gauge, and the temporary job sites where the gauge will be used.
6. Never leave the gauge unattended while in your custody. When using moisture density gauges at temporary job sites, **the authorized user must not leave the gauge unattended at any time**. One method of complying with the requirements would be to lock the source rod in the safe storage position, lock the device in its transport container, and secure the transport container from theft or loss in the operator's vehicle or in a storage building with a locking cable that attaches to the vehicle. Cover the gauge from sight.
7. *The requirements for control and security of licensed material are given in 10 CFR 20.207, Revised Part 20, Sections 20.1801 and 20.1802. PADEP and NRC emphasize that gauge users must not leave the devices unattended even to get some item (notebook, coffee, pen, plans etc), to return to the transport vehicle or to speak to someone. These temporary lapses in control, however minor, have often resulted in damage, loss or theft. PADEP and NRC will take enforcement action, possibly leading to civil penalties (i.e., monetary fines), in such cases.*
8. Follow all applicable Department of Transportation (DOT) requirements when transporting the gauge: Transport package, Bill of Lading, locked source, locked transport box, locled cable box to open vehicle or locked and cable locked to a permanent hook in trunk of car, cable locked around gauge.
9. Do not touch the source rod with your fingers, hand, or any part of your body, and always make sure the source rod is in the shielded position after each measurement is made.
10. Report lost or damaged TLD badge immediately.
11. Always keep unauthorized persons away from the area where the gauge is to be used.
12. Maintain visual contact and be in control of the machine at all times while working near heavy equipment, poor visibility or areas of loud noises. To make gauges more visible to operators of heavy equipment at construction sites, always "stake and flag" each gauge, being sure that flags are tall enough to be seen by heavy equipment operators. **Remember you are the one responsible for the machine, not the heavy equipment operator or dump truck drivers.**
13. Never look under the gauge when the source rod is being lowered into the ground.
14. After each measurement, always return the source to the shielding position and lock it there.

15. When the gauge is not in use at a temporary job site, place the gauge in a secured storage location (e. g., locked in the trunk of a locked car with the cable secured around the gauge box.)
16. Return the gauge to its proper storage location at the end of the work shift.
17. When the gauge is returned to storage, so indicate in the Utilization log sheet with name of returning technician and time and date returned to storage.
18. Become familiar with the emergency procedures and request training if you are not sure about any of the subjects covered above.

8. EMERGENCY PROCEDURES

8.1 TECHNICIAN PROCEDURES

If the source fails to return to the shielded position (e. g., as a result of being damaged) or if any other emergency or unusual situation arises (e. g., the gauge is struck by a moving vehicle, is dropped, or is in a vehicle involved in an accident), If the shielding is compromised in any way or if the gauge is lost or stolen, the following procedures must be followed:

1. Immediately secure the area and keep people at least 15 feet away from the gauge until the situation is assessed and radiation levels are known. However, perform first aid for any injured individuals and remove them form the area only when medically safe to do so.
2. Prevent unauthorized personnel from entering the secured area.
3. If any heavy equipment or any type of vehicle is involved, detain the equipment and driver until it is determined there is no contamination present, and get driver, or operators company name, telephone number, vehicle license number, and operators license.
4. Immediately notify or have some one notify the company personnel in the order listed below:

Name / Title	Work Phone #	Home Phone #	Mobile Phone #
Melissa Heely, RSO	(610) 313-3227	[redacted]	
Craig Joss, Secretary / Back-up RSO	(610) 313-3227		
Richard King, President	(610) 313-3227 (856) 782-1945		

6. DO NOT LEAVE THE SITE UNTIL INSTRUCTED TO DO SO.
7. The RSO will assess the situation and contact the proper authorities as deemed necessary.

8.2 RSO PROCEDURES

1. Arrange for a radiation survey to be conducted as soon as possible by a knowledgeable person using appropriate radiation detection instrumentation. This person could be a licensee employee or a consultant competent in the use of radiation survey meters. The Troxler gauge operation manual contains a radiation profile chart which gives the normal radiation levels near the gauge. The radiation survey readings can be compared to the radiation profile for the gauge contained in the gauge operation manual to determine if the readings are normal. Immediately proceed to the site take charge of the situation. (Ensure to have a radiation detector with you).
2. Assure that the technician on site has properly performed their duties as trained and listed above.
3. Conduct a visual and radiation survey of the area as soon as possible, and visually inspect the gauge to determine the degree of damage.
4. By the use of the radiation detector, determine if gauge is emitting excessive radiation, (in excess of the limits in 10 CFR 20.2203) to assess if the sealed source has been damaged.

5. If the radiation detector shows normal radiation measurements the gauge will be placed and secured in its approved container and returned to its permanent storage area.

A. A leak test will be performed and sent to the manufacturer for analysis.

B. Upon approval by the manufacturer the gauge will be shipped to the manufacturer for repairs as required.

6. If the radiation is excessive proceed as follows:

A. Contact Troxler Electronic Laboratories (919) 549-8661 and explain the situation.

B. If the incident occurred in Pennsylvania, contact the Radiation Control Division in Harrisburg:

Ray Urciuolo, Radiation Control Division Chief, Ron Hamm, Radioactive Materials Section Chief, Joe Melnic, X-Ray and Accelerator Section Chief

Phone: (717) 787-3720 and contact NRC Emergency Operations Center which is staffed 24 hours a day and accepts collect calls, (610) 337-6952. Explain the situation and action taken. Wait for their instructions and follow them.

7. If the gauge was lost or stolen

A. Conduct an internal investigation as to the time, day, and date and where was the gauge was last seen.

B. Check the Utilization Log Sheet to verify who was the last person to have possession of the gauge.

C. Look in the near vicinity and ask if some one may have taken the gauge and stored it some place else.

D. If the machine is not found contact management, PADEP's Bureau of Radiation (484) 250-5854 and NRC's Emergency Operations Center at (610) 337-6952, staffed 24 hours a day and accepts collect calls. Wait for their instructions.

E. **DO NOT CONTACT CIVILIAN AUTHORITIES SUCH AS THE POLICE DEPARTMENT, FIRE DEPARTMENT OR SHERIFF'S DEPARTMENT UNLESS INSTRUCTED TO DO SO BY PADEP OR THE NUCLEAR REGULATORY COMMISION EMERGENCY OPERATIONS CENTER. UNDER NO CIRCUMSTANCES ARE YOU TO CONTACT THE MEDIA!**

8. Submit all requested reports to PADEP within the timeframes specified by the regulations. (Reporting requirements are found in 10 CFR 20.2201-2203 and 10 CFR 30.50.)

9. LEAK TEST PROCEDURES

The leak test will be performed using the Troxler Model 3880 Leak Test Kit. The leak test will be performed using the manufacturer's instructions.

1. Gauges will be leak tested at intervals not to exceed six (6) months.
2. All operations shall be conducted by the RSO or under the direct supervision of the RSO.
3. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of the leak test results shall be kept in units of microcuries and maintained for inspection and/or audit.
4. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the RSO shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or disposed of in accordance with the Nuclear Regulatory Commission requirements.
5. Sealed sources containing 0.005 microcurie or more shall not be opened or removed from their respective source holder by Applied Testing & Geosciences, LLC personnel.

10. NUCLEAR GAUGE STORAGE ROOM PROCEDURES

1. When not in use, all gauges will be stored in the nuclear gauge storage room.
2. The storage room will be kept locked at all times and the key will be under the control of the RSO or his/her assigned custodial person.
3. The storage room will have posted at all times, all symbols and signs indicating that it is a radiation storage area.
4. Copies of the required PADEP and NRC Regulations will be posted on the door and accessible at all times.
5. Surveys of the storage room and outside area shall be conducted quarterly and results recorded in the survey log in excel.
6. Personnel not authorized to enter the room will not be permitted near the storage room.
7. All authorized personnel entering the storage room must be wearing their TLD badge.
8. Minors (Any one under the age of 18 years) and declared pregnant or nursing females are not allowed inside the storage room or in the near vicinity of the storage room. **NO EXCEPTIONS!**

11. RADIATION MONITORING DEVICES

All personnel authorized access to the gauges must have a Thermoluminiscence dosimeter (TLD). TLD badges are the only means the technicians of knowing if they have been exposed to excess doses of radiation. Improper use or deliberate misuse of these devices will result in severe penalties not excluding suspension without pay or termination. Follow these simple guidelines:

1. All new personnel will be required to provide the necessary information to be issued a TLD badge.
2. TLD badges will be issued quarterly and old ones collected and sent to Troxler Electronic Laboratories for analysis.
3. Report readings will be posted every quarter and a copy is available to any technician at any time.
4. Any indication of overexposure will be investigated. All machines will be suspended from use until surveyed. The technician could be subject to physical examination if warranted in the opinion of the RSO. If determined by the examining physician that it was willful wrongdoing by the technician, it will result in severe penalties.
5. TLD badges are to be worn any time personnel are working with the gauges. At no time are TLD badges to be stored with the nuclear gauge in its case or left inside the storage room.

12. TRANSPORTATION REQUIREMENTS

A. TRANSPORT OF GAUGE TO AND FROM PROJECT SITE:

Each machine in its transport case shall be checked prior to leaving the storage area to insure it has the proper documentation for transportation. This includes:

- A copy of the gauge manufacturers and operators manual.
- A copy of our PADEP/NRC license.
- A copy of the Source Certificate.
- A copy of the latest Leak Test Report.
- A properly prepared shipping DOT document.
- A copy of the Emergency Procedures.
- A Bill of Lading.
- All operators shall carry a copy of their training certificate.
- Gauge to be locked inside box with an additional lock on the outside of the box. A cable shall be secured around the entire box from the front to rear and secured with a lock and a cable with a lock securing the gauge to a permanent hook in the trunk of the vehicle.
- When transporting gauge in the trunk or bed of a pickup truck, the gauge is to be locked inside the box with an additional lock on the outside of the box. The agueg MUST BE secured with a locking steel cable to a non-removable shipping box by a stationary hook and secured with a lock.

B. TRANSPORT FOR SHIPPING TO REPAIR OR DISPOSE OF GAUGE:

- During shipping verify that casing meets with Department of Transportation requirements.
- Verify that radioactive packages are prepared, marked and labeled in accordance with 49 CFR Parts 172 and 173 requirements.
- Verify that shipping papers are prepared and contain all needed information and are readily accessible during transport. (Leak test, Bill of Lading, License information, DOT transportation form, gauge information, Radiation isotope information) in accordance with 49 CFR 172.200- 204 and 177.718
- Check that packages are blocked and braced. (49 CFR 177.842)
- Check for needed placarding (49 CFR 172. 504). If overpacks are used, verify that they are properly marked and labeled. (49 CFR 173.25)