

**Construction
Consulting
& Testing**

*Professional Services for the
Construction, Geotechnical
& Geoscience Industries*

November 9, 2017

Mr. Luis Nieves and
Mr. John Giessner
US Nuclear Regulatory Commission
Region III
2443 Warrenville Rd., Suite 210
Lisle, IL 60532-4352

Re: License No.: NRC #34-26746-03 Expires 11/30/2022

Subject: Response to the Apparent Violation in Inspection Report No. 03035974/2017001(DNMS); EA-17-148

To Whom it May Concern:

During our recent inspection on August 10th and 11th, 2017 by Mr. Luis Nieves of the NRC, one severity level III and three severity level IV violations were noted. Construction Consulting and Testing (CCT) is not disputing the findings and is responding in writing to inform the NRC of our understanding of the issues and our corrective actions. These items have been addressed as follows by CCT. The response, corrective actions and implementation have been prepared and are the responsibility of the RSO – Mitch Forst.

Item 1: Failure to secure from unauthorized removal or access to licensed materials by use of a minimum of two independent barriers. Title 10 CFR Section 20.1801 and 10 CFR 30.34(i).

- a. Findings/Reason: Our Sterling Height, MI facility typically has 3 or 4 portable nuclear density gauges (Troxler series 3400) for use in determining density of soils and asphalt on construction projects. The gauges are stored in a locked steel box which is located in a locked steel cage; this storage area is one a concrete slab on grade. Above the storage area is another steel cage; we store the empty transported boxes in the upper cage while the gauges are secured below (in the past we did not lock the upper cage).

CCT also has an office in Waterville, Ohio (agreement state with ODH). One of the Troxler 3430 gauges in use in our Ohio office was in need of service, so on July 29, 2017 I had one of our Ohio users deliver the gauge to Sterling Heights, MI as we have the gauges serviced at Instrotek in Grand Rapids, MI. The employee was not aware of our storage system in the Michigan office and saw the gauge boxes in the upper cage and placed the gauge to be serviced with the other boxes. As there are gauge boxes in the upper cage at all times, I did not think anything was out of the norm and did not notice that there was a gauge inside a box in the upper cage.

As the RSO I had failed to inform the employee of proper storage procedures in Michigan and the employee failed to properly secure the gauge.

- b. Corrective Action: The bottom line with this incident is that a gauge was left unsecured, which is totally unacceptable. It has been stressed to all employees (user's and non-user's alike) that the radioactive materials must be maintained in a secure condition at all times. The critical importance of a minimum of two independent barriers during storage and transport is an absolute necessity and that it is the responsibility of all employees to self-police and promote this

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requirement company wide. All employees are aware of this incident and where CCT failed to comply with federal regulations.

- c. Corrective Action: To insure that gauge storage oversight at the Sterling Heights, MI facility does not happen again we have added to independent locking barriers to the upper cage, these are in-place at all times (same as lower cage). In addition, additional placards have been posted at gauge storage areas that address the minimum of two barriers for storage and transport. Gauge security will continue to be a main topic of discussion CCT's annual safety meeting.
- d. Corrective Action: The corrective actions were implemented with days of the inspection and remain in-place to this date and going forward.

Item 2: Failure to provide Hazmat training on a revolving 3 year (minimum) basis. 10 CR 71.5 (a) and 49 CFR 172.702

- a. Findings/Reason: CCT had not been conducting re-training for Hazmat items relating to the transport of radioactive materials. Initial Hazmat training has been conducted through Troxler during the user's initial gauge safety training. It has been our intent to satisfy the Hazmat refresher during CCT's annual gauge safety meeting (however we have failed to properly document the training), In addition, Luis Nieves of the NRC felt that the content may not be sufficient in detail to satisfy the requirements for proper DOT Hazmat training as related to transport of radioactive material.
- b. Corrective Action: Shortly after the inspection I retook the Troxler online course for Hazmat training for transport of radioactive materials. Detailed notes were taken so as to properly address proper transport with our user's (which was discussed when dealing with Item 1 above). In addition, CCT has had current users re-train through Troxler, certs attached (one exception -- Mike Taylor has not taken the on-line course at this time, he will complete within the next week -- cert to be forwarded to Luis Nieves, NRC). CCT will monitor the status of each user's Hazmat training during the annual safety audit.

Item 3: Using a damaged transportation case. 10 CR 71.5 (a) and 49 CFR 173.475(b)

- a. Findings/Reason: CCT failed to exam the transport cases to ensure that they were in unimpaired physical condition. CCT has two transport cases that have impairments as a result of melted plastic from generator exhaust. The portable gauge transport boxes are molded plastic with two layers (outer and inner layer). One of the boxes has a surface blemish that does not puncture either layer, a second box has a melt mark that penetrates the outer layer.
- b. Corrective Action: CCT replaced both boxes by purchasing replacement boxes from Instrotek (receipts attached). In addition, as part of our internal discussions regarding Item 1 above we also covered the Hazmat related shipping items in depth.
- c. Corrective Action: The RSO will inspect boxes on a more regular basis and it has been stressed to all employees to self-police and promote Hazmat requirements on a company wide basis.

Item 4: Failure to provide annual audits of the radiation safety program. 10 CFR 20.1101(c)

- a. Findings/Reason: CCT does not have documented records of annual audits for radiation safety training. CCT ducts an annual safety meeting with all employees once each spring, prior to the start of the annual construction season. The two major topics of this meeting are Drugfree Workplace and Nuclear safety.

The nuclear safety portion is a detailed discussion on gauge transportation, storage, operation and safety. This has been our procedure for years and I have considered this to be our annual audit. At the time of the inspection, Luis Nieves of the NRC, reviewed our meeting itinerary and had felt that the "annual audit" should be a more formal audit by the RSO and a bit more geared to the conditions of our specific radiation license.

- b. CCT has developed and recently completed an annual audit form to facilitate the annual audit process. CCT will conduct the annual audit during the month of January at the time of our January gauge inventory. Outlook notification reminders have been set in key personnel email systems to serve as reminders for both inventory and audits. A copy of our recently completed audit is attached.

If have any questions please call or email.

Sincerely



Mitch D. Forst
President
Radiation Safety Officer

Hazmat Certification
as required by U.S DOT and IATA

This certifies that

Mitch Forst

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

Date Aug 30, 2017 Expires Aug 29, 2020

EMPLOYER CERTIFICATION

I certify that the hazmat employee identified on this certificate has been trained and tested as required by U.S. DOT Hazardous Material Regulations (49 CFR 172 Subpart H).

Signature _____ Title _____ Date _____



Troxler Electronic Laboratories, Inc.
P.O.BOX 12057 - 3008 E. Cornwallis Road - Research Triangle Park, NC 27709
Phone:(919) 549-8661 - Fax: (919) 549-0761 - www.troxlerlabs.com

HAZMAT CERTIFICATION

as required by U.S. DOT and IATA

This certifies that

Eugene Frisinger

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

March 25, 2016

EMPLOYER CERTIFICATION

I certify that the hazmat employee identified on this certificate has been trained and tested as required by U.S. DOT Hazardous Material Regulations (49 CFR 172 Subpart H).

Signature _____ Title _____



The Leader in Construction Testing Equipment

Troxler Electronic Laboratories, Inc.

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

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

Course: Hazmat

Tracking Code: B65787A8A767J5K_91762

HAZMAT CERTIFICATION

as required by U.S. DOT and IATA

This certifies that

Thomas Klein

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

June 08, 2016

EMPLOYER CERTIFICATION

I certify that the hazmat employee identified on this certificate has been trained and tested as required by U.S. DOT Hazardous Material Regulations (49 CFR 172 Subpart H).

Signature Elizabeth A. Jough Title RSO / Radiation Safety Officer



The Leader in Construction Testing Equipment

Troxler Electronic Laboratories, Inc.

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

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

Course: Hazmat

Tracking Code: 89K656J786BM7E6_96973

Hazmat Certification
as required by U.S DOT and IATA

This certifies that

Scott Gilbert

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

Date Sep 20, 2017 Expires Sep 19, 2020

EMPLOYER CERTIFICATION

I certify that the hazmat employee identified on this certificate has been trained and tested as required by U.S. DOT Hazardous Material Regulations (49 CFR 172 Subpart H).

Signature _____ Title _____ Date _____



Troxler Electronic Laboratories, Inc.
P.O.BOX 12057 - 3008 E. Cornwallis Road - Research Triangle Park, NC 27709
Phone:(919) 549-8661 - Fax: (919) 549-0761 - www.troxlerlabs.com

Nuclear Gauge Safety Certification

This certifies that

John Morganstern

has successfully completed the official Troxler nuclear gauge user safety training course. This person was taught and demonstrated their knowledge of radiation safety and regulatory requirements associated with the use of portable nuclear density gauges on this date:

Jun 01, 2017

This certificate is not valid until signed by the licensee RSO.

I attest that the person named above, and no other, completed the online course and tests. I certify that the individual has completed practical skills training for setting up and making measurements, routine maintenance, packaging and transport, storage, and emergency procedures for portable nuclear gauges.

Licensee RSO

(Print Name)

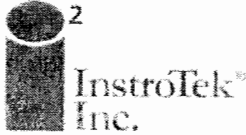
Title

Date

Troxler Online Training meets the requirements in Chapter 64E, Part XIII, Florida Administrative Code.



Troxler Electronic Laboratories, Inc.
P.O. BOX 12057 - 3008 E. Cornwallis Road - Research Triangle Park, NC 27709
Phone: (919) 549-8661 - Fax: (919) 549-0761 - www.troxlerlabs.com



Remit Payment To:
 InstroTek, Inc.
 PO Box 90007
 Raleigh, NC 27675-0007

Invoice

Invoice #: 418800
 Date: 8/11/2017
 Due Date: 8/11/2017
 P.O. #:
 Terms: Credit Card
 Ship Via: Pickup

Bill To

Construction Consulting & Testing
 Accounts Payable
 700 South River Road
 Waterville, OH 43566

Item	Qty	Description	Rate	Amount
3501048	1.00	Molded Shipping Case, Type-A, Water-Resistant with Labels for Gauge Models: • InstroTek 3500 • Troxler 3401, 3411, 3430, 3440 Picked up by Mitch Date 8/10/17	465.00	465.00

Thank you for choosing InstroTek, Inc.

Visit us online! www.instrotek.com

Tax ID: 56-2029048

Payments are due according to terms specified. Unpaid balances will be charged a late payment penalty of 1.5% per month. Prices are in US Dollars.

Ship To

Construction Consulting & Testing
 Mitch East
 700 South River Road
 Waterville, OH 43566

Subtotal: \$465.00
 Sales Tax: (0.0%) \$0.00
 Total: \$465.00
 Payments/Credits: \$0.00
 Balance Due: \$465.00

SXM

Innovators In Instrumentation Technology

Raleigh, NC 919.875.8371 | Las Vegas, NV 702.270.3885 | Grand Rapids, MI 616.726.5850
 Concord, CA 925.363.9770 | Denver, CO 303.955.5740 | Bensalem, PA 215.645.1064



**InstroTek
Inc.**

Remit Payment To:
InstroTek, Inc.
PO Box 90007
Raleigh, NC 27675-0007

Invoice

Invoice #:	421527
Date:	11/9/2017
Due Date:	11/9/2017
P.O. #:	
Terms:	Credit Card
Ship Via	Pickup

Bill To

Construction Consulting & Testing
Accounts Payable
700 South River Road
Waterville, OH 43566

Item	Qty	Description	Rate	Amount
2919999	1.00	Refurbished Troxler Shipping case	250.00	250.00
207100	1.00	Leak Test Kit -- Quantity of 10	150.00	150.00

Thank you for choosing InstroTek, Inc.

Visit us online! www.instrotek.com

Tax ID: 56-2029048

Payments are due according to terms specified. Unpaid balances will be charged a late payment penalty of 1.5% per month. Prices are in US Dollars.

Ship To

Construction Consulting & Testing
Mitch Fort
700 South River Road
Waterville, OH 43566

Subtotal:	\$2,271.30
Sales Tax: (0.0%)	\$0.00
Total:	\$2,271.30
Payments/Credits:	\$0.00
Balance Due:	\$2,271.30

Innovators In Instrumentation Technology

Raleigh, NC 919.875.8371 | Las Vegas, NV 702.270.3885 | Grand Rapids, MI 616.726.5850
Concord, CA 925.363.9770 | Denver, CO 303.955.5740 | Bensalem, PA 215.645.1064

Nuclear Gauge Safety Annual Audit For Construction Consulting & Testing

Date(s) of Audit: October 25, 2017

Conducted by: Mitch D. Forst

Office(s) of Audit: Waterville, Ohio (ODH jurisdiction)
Sterling Heights, MI (NRC jurisdiction)

Current RSO: Mitch D. Forst (419)-466-3255

Alternate Contacts: Judy Forst (586)-321-4292
Melissa DeSmith (419)-409-0376

Storage Locations: Waterville, Ohio Office (ODH)
700 S. River Road
Waterville, Ohio 43566
419-878-7304

Sterling Heights, MI Office (NRC)
35410 Mound Road
Sterling Heights, MI 48310
586-795-2877

Temporary Storage Locations - none at time of audit

License/Expiration: ODH #31210490002 Expires 9/1/2021
NRC #34-26746-03 Expires 11/30/2022

Radioactive Mat'l: Each license authorizes the use of:
A. Cesium-137 sealed soured max. qty. of 9 mCi
B. Americium-241:Be sealed soured max. qty. of 44 mCi
C. Americium-241:Be sealed soured max. qty. of 110 mCi

Authorized Use: Each license allows for the following:
Up to 8 Troxler Model 3400 series gauges
Up to 2 Troxler Model 3241-C AC content gauges

At the time of this audit, CCT's gauge ownership/usage is within the allowances of the licenses for radioactive material type and quantity.

Operator Training: All gauge users have received the proper usage training and transport training through Troxler Labs. The courses included Nuclear Gauge Safety Certification and Hazmat Certification. Hazmat training is currently being updated by Troxler online course (within 3 years) for all current gauge users. A detailed Hazmat meeting was held with all users during August of 2017 to insure proper procedures in-place.
Certs are maintained on CCT's mainserver.

Sealed Source Items:

All of the gauges owned by CCT are manufactured by Troxler. The sealed sources are evaluated and approved under provisions of OAC 3701:1-46-49.

All gauges owned by CCT are leak tested at a minimum of once every twelve months (in accordance with Troxler certificates). All leak tests are current at the time of this audit.

CCT will not nor ever has opened or removed the radioactive material from the seal source.

Inventory:

CCT conducts a gauge inventory every 6 months in the months of January and July. Maintained on CCT's Mainserver.

GAUGE SAFETY AND USAGE:

In addition to the Troxler Safety and Hazmat Training, CCT conducts and annual safety meeting prior to the start of the construction season.

Gauge storage:

A. Lab storage: All gauges are to be stored in the designated Locked storage area, with a minimum of two(2) locks to get to the gauge and/or remove the gauge and one lock on the source handle.

B. Temporary Overnight:

Store in the locked vehicle. Handle and box must be locked and the box chained and locked to the Steering wheel.

Gauge Transport:

Five things that must occur before you transport a gauge.

Inspect transport case for damage

Take your film badge

Sign Out the Gauge

Take the transport papers

Secure the gauge. 3 Locks – 1 source - 2 box

The gauge must be locked at the source rod and box.

The gauge must be chained through the box handles and locked in the rear right of the vehicle with 2 independent locks so as the transport case is secure and will remain secure in the event of an accident(no exceptions: our license dictates the location – furthest distance from the driver).

Field Safety Precautions

Keep the gauge with you at all times.

If you are not using the gauge, it must be locked and in the box, secured to the vehicle.

All non-dosimeter individuals should be maintained at a distance of 15 feet from the gauge.

Maintain a constant awareness of where the gauge is when in your possession.

In case of an Emergency:

Contact RSO, State Police and follow procedures in the transportation travel papers.

Radiation Exposure:

Our intent is to practice the policy of ALARA – As Low As Reasonably Achievable.

This is done by Time, Distance & Shielding.