



GENESEE COUNTY ROAD COMMISSION

Serving the motorists of Genesee County for more than 100 years

211 W. Oakley Street
Flint, MI 48503-3995
Website: www.gcrc.org
Board meetings: first and third Tuesdays at 10:00 A.M.

Phone: (810) 767-4920
Toll Free: (800) 249-4027
Fax (810) 767-5373 - Administration
Fax (810) 767-3634 - Maintenance

December 18, 2013

Nuclear Regulatory Commission
Region III
Attn: Mr. Bill Reichhold
2443 Warrenville Road
Suite 210
Lisle, Illinois 60532-4352

Subject: **Response to Control 582634**
Transfer of Nuclear Density Gauges to Troxler Laboratories
Termination of NRC License 21-15602-01

Dear Mr. Reichhold,


We are in receipt of the questionnaire send December 13, 2013. Below are the questions and our corresponding answers.

1. Please confirm that the only radionuclides you used were cesium-137 and americium-241 sealed sources in moisture/density gauges. **Yes. The only radionuclides used here were sealed sources of cesium-137 and americium-241.**
2. Please specify the date when the moisture/density gauges were returned to Troxler for disposal. **Gauge (SN 10217) was returned to Troxler on April 18, 2012. Gauges (SN 12688 & SN 17246) were both returned to Troxler on December 5, 2013.**
3. Our inspection reports indicate that you had three Troxler moisture/density gauges. Please submit leak test results and information (such as disposal/transfer records) for Troxler 3411-B, serial 10217, moisture/density gauge. **Attached is the leak test and confirmation of disposal/transfer for Gauge (SN 10217). See item 2 above for additional information.**
4. The leak test results for Troxler model 3440, serial 17246, were performed on September 21, 2012. Please submit a copy of the most recent leak test results to show that sealed sources were not leaking when the sources were returned to Troxler for disposal. **Attached are the leak tests for both gauges (SN 12688 & SN 17246).**
5. If you had a history of leaking sealed sources please provide information that includes the isotope, amount of leakage, contamination of other areas or personnel, description of the cleanup, and disposition of the source(s). If you did not have a history of leaking sealed sources please state so. **We did not have a history of any seal sources in our possession ever leaking.**
6. Please submit a copy of the acknowledgement letter that the radioactive materials were received by the company (Troxler) where the gauges were shipped for transfer/disposal. **See the attached letter from Troxler indicating transfer of ownership.**

Our mission, as Genesee County Road Commission employees, is to collectively provide and maintain a safe, cost-efficient and quality county road system for the motorists in Genesee County, Michigan.



Sincerely,
GENESEE COUNTY ROAD COMMISSION



John Plamondon, P.E.
Radiological Safety Officer

cc: File

#3



Troxler Electronic Laboratories, Inc.

3008 Cornwallis Rd., P.O. Box 12057
Research Triangle Park, NC 27709
Tel: (877) 876-9537 Fax: (866) 391-2759
License: NC 032-0182-1

JOHN PLAMONDON
GENESSEE COUNTY RD COMMIS
211 WEST OAKLEY STREET
FLINT, MI 48503

Cust ID: 587

LEAK TEST CERTIFICATE

DEVICE:

Model: 3411 Serial No: 10217

SEALED SOURCES:

Serial No.	Measure Date	Nuclide	GBq	mCi
46-1619	09/28/1983	Am-241:Be	1.48	40
40-9428	10/29/1984	Cs-137	0.296	8

RECEIVED

LEAK TEST ANALYSIS:

Sample collected on: 08/23/2011
Sample analyzed on: 08/31/2011 7:47:39 AM Position: 15
Analyzed by: D. Rose

BY:

	ALPHA	BETA-GAMMA
Conversion factor (cpm/Bq)	1.22E+01	1.95E+01
Background measurement (cpm)	2	27
Sample measurement (cpm)	0	29
Activity (Bq)	< MDA	< MDA
Min. Detectable Activity (Bq)	7.2E-01	1.4E+00

This certifies that the leak test results are:

✓ Less than 185 Bq (0.005 uCi)

Greater than 185 Bq (0.005 uCi)

#3



Troxler Electronic Laboratories, Inc. - Troxler International, Ltd.
3008 Cornwallis Road, P.O. Box 12057, Research Triangle Park, NC 27709 - USA
Telephone: 919/540-8861 Telefax: 919/540/0761

April 18, 2012

Genesee County Road Commission
Attn: John Plamondon
211 W. Oakley Street
Flint, MI 48503

Attn: John Plamondon

This is to acknowledge receipt and transfer of ownership of the nuclear gauge(s) listed below, and the radioactive sources contained therein, to Troxler under North Carolina Radioactive Material License #032-0182-1. You should retain this letter in your files for future reference.

Date Received: 02-27-12

Job Number
22236

Model
3411

Serial Number
10217

Regards,

Emily Davis
Service/Repair Department
Troxler Electronics

RECEIVED

BY:

#4



Troxler Electronic Laboratories, Inc.

3008 Cornwallis Rd., P.O. Box 12057
Research Triangle Park, NC 27709
Tel: (877) 876-9537 Fax: (919) 485-2250
License: NC 032-0182-1

TROXLER ELECTRONIC LABS
3008 CORNWALLIS RD
RTP, NC 27709

LEAK TEST CERTIFICATE

DEVICE:

Model: 3440 **Serial No:** 17246

SEALED SOURCES:

Serial No.	Measure Date	Nuclide	GBq	mCi
50-6557	3/22/1989	Cs-137	0.296	8
47-12668	2/22/1989	Am-241:Be	1.48	40

LEAK TEST ANALYSIS:

Sample collected on: 12/09/2013
Sample analyzed on: 12/11/2013 at 9:18:00 AM
Analyzed by: HEB

	ALPHA	BETA-GAMMA
Conversion factor (cpm/Bq)	1.25E+01	1.97E+01
Background measurement (cpm)	0	24
Sample measurement (cpm)	0	24
Activity (Bq)	< MDA	< MDA
Min. Detectable Activity (Bq)	3.8E-01	1.3E+00

This certifies that the leak test results are:

☒ **Less than 185 Bq (0.005 uCi)** ☐ **Greater than 185 Bq (0.005 uCi)**

#4



Troxler Electronic Laboratories, Inc.

3008 Cornwallis Rd., P.O. Box 12057
Research Triangle Park, NC 27709
Tel: (877) 876-9537 Fax: (919) 485-2250
License: NC 032-0182-1

TROXLER ELECTRONIC LABS
3008 CORNWALLIS RD
RTP, NC 27709

LEAK TEST CERTIFICATE

DEVICE:

Model: 3411

Serial No: 12688

SEALED SOURCES:

Serial No.	Measure Date	Nuclide	GBq	mCi
50-1056	3/20/1985	Cs-137	0.296	8
47-7995	6/28/1985	Am-241:Be	1.48	40

LEAK TEST ANALYSIS:

Sample collected on: 12/09/2013

Sample analyzed on: 12/11/2013 at 9:17:00 AM

Analyzed by: HEB

	ALPHA	BETA-GAMMA
Conversion factor (cpm/Bq)	1.25E+01	1.97E+01
Background measurement (cpm)	0	24
Sample measurement (cpm)	0	24
Activity (Bq)	< MDA	< MDA
Min. Detectable Activity (Bq)	3.8E-01	1.3E+00

This certifies that the leak test results are:

☒ Less than 185 Bq (0.005 uCi)

☐ Greater than 185 Bq (0.005 uCi)

#6



Troxler Electronic Laboratories, Inc. - Troxler International, Ltd.
3008 Cornwallis Road, P.O. Box 12057, Research Triangle Park, NC 27709 - USA
Telephone: 919/549-9881 Telefax: 919/549/0781

December 10, 2013

Genesee County Road Commission
Attn: John Plamondon
211 W. Oakley Street
Flint, MI 48503

Attn: John Plamondon

This is to acknowledge receipt and transfer of ownership of the nuclear gauge(s) listed below, and the radioactive sources contained therein, to Troxler under North Carolina Radioactive Material License #032-0182-1. You should retain this letter in your files for future reference.

Date Received: 12-05-13

Job Number	Model	Serial Number
30972	3440	17246
30973	3411	12688

Regards,

Emily Davis
Service/Repair Department
Troxler Electronics



GENESEE COUNTY ROAD COMMISSION
ENGINEERING DEPARTMENT - CONSTRUCTION/DESIGN
211 W. OAKLEY ST., FLINT, MI 48503-3995
PHONE: (810) 767-4920
FAX: (810) 767-6570

FACSIMILE TRANSMISSION COVER LETTER

Number of pages following: 7

TO: RESPONSE TO CONTROL 582634

FAX: 630-515-1078

FROM: GENESEE COUNTY ROAD COMMISSION

RE: LICENSE 21-15602-01

DATE: 12/18/13 TIME: 1:45 PM EST

COMMENTS:

ANY QUESTIONS PLEASE CALL
JOHN PLAMONDON @ 810-767-4920 X232.

IF YOU DO NOT RECEIVE THE PROPER PAGES,
PLEASE CALL BACK AS SOON AS POSSIBLE.

THANK YOU!