

Michael W. Lairmore, M.S.
P.O. Box 296
Midland Park, New Jersey 07432
(201) 693-2277
wmlairmore@optonline.net

January 31, 2021

Licensing Assistance Section
Nuclear Materials Safety Branch
U.S. Nuclear Regulatory Commission, Region I
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

REC RG 1 03 19 '21 PM 02:52

RE: Amendment Request - Termination of NRC License
License Number: 29-30227-01

Dear License Reviewer:

Please terminate license number: 29-30227-01. I currently possess two radioactive material licenses. I will continue to operate under my New Jersey State Radioactive Material License. I have attached a copy of the state license, NRC-314 and most recent leak tests completed on the sources possessing an activity in excess of 100 uCi.

If, you require additional information, please contact me at (201) 693-2277 or wmlairmore@optonline.net.

Sincerely,

Michael W. Lairmore, M.S.
Michael W. Lairmore, President
Michael W. Lairmore Associates



CERTIFICATE OF DISPOSITION OF MATERIALS

Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollect.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0028), 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.

LICENSEE NAME AND ADDRESS

Michael W. Lairmore Associates
P.O. Box 296
Midland Park, New Jersey 07432

LICENSE NUMBER

29-30227-01

DOCKET NUMBER

LICENSE EXPIRATION DATE

February 28, 2021

A. LICENSE STATUS (Check the appropriate box)

- This license has expired.
- This license has not yet expired; please terminate it.

B. DISPOSAL OF RADIOACTIVE MATERIAL

(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

- 1. No radioactive materials have ever been procured or possessed by the licensee under this license.
- 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner:
 - a. Transfer of radioactive materials to the licensee listed below:
Michael W. Lairmore Associates License Number: 454533. Copy of License Attached.
 - b. Disposal of radioactive materials:
 - 1. Directly by the licensee:
 - 2. By licensed disposal site:
 - 3. By waste contractor:
 - c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

C. SURVEYS PERFORMED AND REPORTED

- 1. A radiation survey was conducted by the licensee. The survey confirms:
 - a. the absence of licensed radioactive materials
 - b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.
- 2. A copy of the radiation survey results:
 - a. is attached; or b. is not attached (Provide explanation); or c. was forwarded to NRC on: _____ Date
- 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and
 - a. The results of the latest leak test are attached; and/or
 - b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME	TITLE	TELEPHONE (Include Area Code)	E-MAIL ADDRESS
Michael W. Lairmore, M.S.	President	(201) 693-2277	wmlairmore@optonline.net

Mail all future correspondence regarding this license to:

Michael W. Lairmore, M.S., P.O. Box 296, Midland Park, NJ 07432

C. CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE	SIGNATURE	DATE
Michael W. Lairmore, M.S.	<i>Michael W. Lairmore, M.S.</i>	02/01/2021

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 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.

MICHAEL W. LAIRMORE ASSOCIATES
MEDICAL PHYSICS SURVEY
SCINTILLATION WELL COUNTER EVALUATION

FACILITY: Michael W. Lairmore Associates MODEL No.: Ludlum SCA 2200; S/N: 185807
LOCATION: Midland Park, New Jersey ROOM No.: Office

Date	(A) NUCLIDE	H.V.	(B) CPM	(C) RESOL	CHI ²	EFF
02/01/2020	Cs-137	2.76	63,215	7.18%	2.77	81.00%

Michael W. LAIRMORE ASSOCIATES
 MEDICAL PHYSICS SURVEY
 SEALED SOURCE INVENTORY

FACILITY: Michael w. Lairmore Associates
 LOCATION: Midland Park, New Jersey

DEPARTMENT: Office

Nuclide:	Ba-133	Ba-133	Ba-133	Cs-137	Cs-137	Cs-137	Co-57
Type:	Vial	Vial	Rod	Button	Vial	Rod	Rod
Location:	Safe Suitcase	Safe Suitcase	Safe Suitcase	Safe Suitcase	Safe Suitcase	Safe Suitcase	Safe Suitcase
Assay: (Date)	259 uCi 09/01/1998	298 uCi 10/13/1987	7.6 uCi 11/16/1989	10 uCi Spectrum Tech 02/2009	213.3 uCi 05/01/2004	.500 uCi 04/01/2004	1.126 uCi 03/01/2016
Mgr:	IPL	Dupont	Dupont	Amersham	NAS	IPL	E&Z
Serial No.:	621-20-2	S358002-27	---	---	50621	780-93-93	1771-93-2
Model:	RV-133-230U	NES358	---	---	MED3550	GF-0008	GF-0210
DATE							
05/02/2019	X	X	X	X	X	X	X
08/02/2019	X	X	X	X	X	X	X
11/02/2019	X	X	X	X	X	X	X
02/01/2020	X	X	X	X	X	X	X
08/01/2020	X	X	X	X	X	X	X
02/01/2021	X	X	X	X	X	X	X

X - INDICATES SOURCE INVENTORIED

RSO Signature Michael W. Lairmore, M.S., RSO

MICHAEL W. LAIRMORE ASSOCIATES
 MEDICAL PHYSICS SURVEY
 SEALED SOURCE INVENTORY

FACILITY: Michael w. Lairmore Associates
 LOCATION: Midland Park, New Jersey

DEPARTMENT: Office

Nuclide:	Cs-137	Eu-152	Cs-137	Co-57	Co-57
Type:	Rod	Rod	Rod	Rod	Vial
Location:	Safe Suitcase	Safe Suitcase	Safe Suitcase	Safe Suitcase	Safe Suitcase
Assay: (Date)	.500 uCi 01/01/1995	.500 mCi 03/01/1994	.1179 uCi 06/01/1999	1.312 uCi 02/01/2006	5.328 mCi 04/01/2012
Mgr:	IPL	IPL	NAS	NAS	E&Z
Serial No.:	71-100	460-8	BO393	68996	1551-56-20
Model:	---	---	MED3440	MED3440	RV-057-5M

DATE

05/02/2019	X	X	X	X	X
08/02/2019	X	X	X	X	X
11/02/2019	X	X	X	X	X
02/01/2020	X	X	X	X	X
08/01/2020	X	X	X	X	X
02/01/2021	X	X	X	X	X

X - INDICATES SOURCE INVENTORIED

RSO Signature Michael W. Lairmore, M.S.

MICHAEL W. LAIRMORE ASSOCIATES
MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY: Michael Lairmore Associates DEPARTMENT: Office/Safe
LOCATION: Midland Park, Nerw Jersey ATTENTION: Michael Lairmore, M.S., RSO

Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.001 uCi, unless otherwise noted, when compared against NIST traceable standards.

Source: Cesium-137 Vial; 213.3 uCi on 05/01/2004; NAS; S/N: 50621; Model Number: MED3550

Date: 02/01/2021
Wipe No.: MWL550
MDA (uCi): 1.22E-4
Net CPM: 22
Net uCi: < MDA
CPM for
0.001 uCi: 761.20
Analyst: M. Lairmore

Source: Ba-133 Vial; 298 uCi on 10/13/1987; Dupont, S/N: S358002-27; Model #: NES358

Date: 02/01/2021
Wipe No.: MWL551
MDA (uCi): 1.14E-4
Net CPM: 8
Net uCi: < MDA
CPM for
0.001 uCi: 697.24
Analyst: M. Lairmore

Performed by: Michael W. Lairmore Associates Under License No. : 29-30227-01

RSO Signature Michael W. Lairmore, M.S., RSO

**MICHAEL W. LAIRMORE ASSOCIATES
MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT**

FACILITY: Michael Lairmore Associates DEPARTMENT: Office
LOCATION: Midland Park, New Jersey ATTENTION: Michael Lairmore, M.S., RSO

Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.001 uCi, unless otherwise noted, when compared against NIST traceable standards.

Source: Co-57 Vial; 5.328 mCi on 04/01/2012; Eckert & Ziegler; S/N: 1551-56-20; Model Number: RV-057-5M

Date: 02/01/2021
Wipe No.: MWL552
MDA (uCi): 4.47E-5
Net CPM: 20
Net uCi: < MDA
CPM for
0.001 uCi: 1,805
Analyst: M. Lairmore

Source: Ba-133 Vial; 259 uCi on 09/01/1998; IPL, S/N: 621-20-2; Model #: RV-133-230U

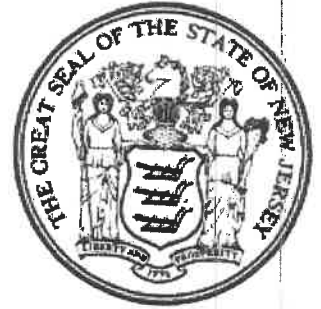
Date: 02/01/2021
Wipe No.: MWL554
MDA (uCi): 1.14E-4
Net CPM: 7
Net uCi: < MDA
CPM for
0.001 uCi: 697.24
Analyst: M. Lairmore

Performed by: Michael W. Lairmore Associates Under License No. : 29-30227-01

RSO Signature Michael W. Lairmore, M.S., RSO



New Jersey Department of Environmental Protection
 Bureau of Environmental Radiation
 Radioactive Materials Program
 Mail Code 25-01
 P.O. Box 420
 Trenton, NJ 08625-0420
 Phone (609) 984-5462
 Fax (609) 633-2210



Radioactive Materials License

Pursuant to the Radiation Protection Act (N.J.S.A. 26:2D) and the Radiation Code (N.J.A.C. 7:28, et seq.), as amended, 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 radioactive material(s) 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. This license is subject to all applicable rules, regulations, and orders of the New Jersey Department of Environmental Protection, now or hereafter in effect, and to any conditions specified below.

DOCUMENT INFORMATION

Program Interest (PI) ID: 454533	Issuance Date: October 30, 2014
License Number: 454533 - RAD140001	Expiration Date: October 31, 2024

ADMINISTRATIVE INFORMATION

Licensee Name and Administrative Address MICHAEL W LAIRMORE ASSOC PO BOX 296 MIDLAND PARK, NJ 07432	Administrator: Michael W. Lairmore, M.S. Radiation Safety Officer: Michael W. Lairmore, M.S.
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PROGRAM INFORMATION

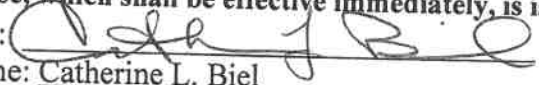
Program Code	Description
03220	Leak Test Service Only
03221	Instrument Calibration Services Only - Source Less Than Or Equal To 100 Curies

LICENSE CONDITIONS

This license is subject to the following conditions:

- Section A – Authorized Materials, Form, Limits, Uses & Users
- Section B – Authorized Locations
- Section C – Source & Device Inventory
- Section D – Supporting Documents
- Section E – License Conditions

This license, which shall be effective immediately, is issued on behalf of the Department under the authority of:

Signature: 	October 30, 2014
Print Name: Catherine L. Biel	Date

SECTION A – Materials, Form, Limits, Uses & Users

Material	Form	Max Limit	Authorized Uses	Authorized Users
Barium-133	Any, Except Sealed Sources	5 nanocuries	Non-Human Use - Analysis of samples	Michael W Lairmore, M.S.
Cesium-137	Any, Except Sealed Sources	5 nanocuries		
Cobalt-57	Any, Except Sealed Sources	5 nanocuries		
Cobalt-60	Any, Except Sealed Sources	5 nanocuries		
Germanium-68	Any, Except Sealed Sources	5 nanocuries		
Any byproduct material (Z = 3-83), T1/2 <120 days	Any, Except Sealed Sources	100 microcuries		
Barium-133	Sealed Source	2 millicuries	Non-Human Use - Calibration and/or quality assurance.	
Cesium-137	Sealed Source	2 millicuries		
Cobalt-57	Sealed Source	30 millicuries		
Europium-152	Sealed Source	1 millicuries		
Germanium-68	Sealed Source	1 millicuries		
Technetium-99m	Any	500 millicuries		
Any byproduct material (Z = 1-83), T1/2 >120 days	Sealed Source	1 millicuries		

SECTION B – Authorized Locations

Site ID	Site Name	Street Address	Location Description
367475	MICHAEL W LAIRMORE ASSOC	77 REA AVE., MIDLAND PARK BORO, NJ	Storage, Possession, Use: Office and attached garage with safe
N/A	TEMPORARY JOB SITES	Temporary job sites wherever New Jersey retains regulatory authority	Possession or Use ONLY (not storage)

SECTION C – Inventory of sources and devices

ID	Device Type	Description	Device Mfg	Device Model #
1	Calibration Source	Cs-137: 250 uCi per source and 2 mCi total	North American Scientific, Inc.	MED3550
2	Calibration Source	Cs-137: 250 uCi per source and 2 mCi total	Isotope Products Laboratories (IPL)	GF-008
3	Calibration Source	Co-57: 7 mCi max per source and 30 mCi total	Eckert & Ziegler Isotope Products	MED3550
4	Calibration Source	Co-57: 7 mCi per source and 30 mCi total	Eckert & Ziegler Isotope Products	GF-0210
5	Calibration Source	Ge-68: 1 mCi per source and 1 mCi total	Eckert & Ziegler Isotope Products	GF-068
6	Calibration Source	Eu-152: 1 mCi per source and 1 mCi total	Eckert & Ziegler Isotope Products	GF-052
7	Calibration Source	Barium-133: 300 uCi per source and 2 mCi total	New England Nuclear	NES-358
8	Calibration Source	Cs-137: 250 uCi per source and 2 mCi total	New England Nuclear	NES-367

ID	Device Type	Description	Device Mfg	Device Model #
9	Calibration Source	Barium-133: 300 uCi per source and 2 mCi total	New England Nuclear	NES-367
10	Calibration Source	Cs-137: 250 uCi per source and 2 mCi total	New England Nuclear	NES-356
11	Calibration Source	Cs-137: 250 uCi max per source and 2 mCi total	New England Nuclear	NES-360
12	Medical Reference Source	Co-57: 7 mCi per source and 30 mCi total	International Isotopes Idaho, Inc.	BM06E
13	Calibration Source	Co-57: 7 mCi per source and 30 mCi total	North American Scientific, Inc.	MED3400
14	Medical Reference Source	Ba-133: 300 uCi per source and 2 mCi total	Isotope Products Laboratories (IPL)	RV-133-230U
15	Calibration Source	Ba-133: 300 uCi per source and 2 mCi total	North American Scientific, Inc.	MED3550
16	Calibration Source	Ba-133: 300 uCi per source and 2 mCi total	Isotope Products Laboratories (IPL)	GF-133

SECTION D – Supporting Documents

Doc Type	Title/Description	Date	Contact Name (signature)
Radioactive Material License Application	Renewal Application (RAD140001)	5/25/2014	Michael W. Lairmore, M.S.
Letter	Additional information in support of RAD140001	6/27/2014	Michael W. Lairmore, M.S.
Letter	Additional information in support of RAD140001	8/21/2014	Michael W. Lairmore, M.S.
Electronic Mail (email)	Additional information in support of RAD140001	9/12/2014	Michael W. Lairmore, M.S.
Letter	Additional information in support of RAD140001	Received on 10/24/2014	Michael W. Lairmore, M.S.
Electronic Mail (email)	Additional information in support of RAD140001	10/27/2014	Michael W. Lairmore, M.S.

SECTION E – License Conditions (Requirements Report attached)

MICHAEL W LAIRMORE ASSOC
454533 RAD140001 RAD Materials License -License Renewal
Requirements Report

Subject Item: PI 454533 -

1. This licensee must confine their use of radioactive materials the materials, physical forms, maximum possession limits, authorized uses and authorized users listed in section A of this license document. Licensed material shall only be used at the locations and/or within devices specified in sections B and C of this license document and at temporary job sites anywhere in the State of New Jersey where the New Jersey Department of Environmental Protection maintains jurisdiction over radioactive materials. [N.J.A.C. 7:28-4.9(c)]
2. Compliance with State and Federal agencies having jurisdiction and regulations for radioactive materials must be maintained. [N.J.A.C. 7:28-51.1]
3. In addition to the possession limits in section A, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in N.J.A.C. 7:28-51.1 (10 CFR 30.35(d)) for establishing decommissioning financial assurance. [N.J.A.C. 7:28-51.1]
4. Licensed material shall not be used in or on human beings except as provided otherwise by specific condition of this license. [N.J.A.C. 7:28-51.1]
5. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed six months or at the intervals specified in the certificate of registration issued by NRC under 10 CFR 32.210, not to exceed 3 years. B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months. C. 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 NRC under 10 CFR 32.210 or by an Agreement State prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested and the results received. D. Sealed sources fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source. [N.J.A.C. 7:28-51.1]
6. A. Sealed sources and detector cells need not be leak tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta-and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material; or B. They are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer 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 or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination. C. 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 Department in accordance with N.J.A.C. 7:28-51.1(10 CFR 30.50(c)(2)), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Department regulations. D. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and or contamination may be performed by persons specifically licensed by the Department, the Commission or another agreement state to perform such services. E. Records of leak test results shall be kept in units of microcuries and shall be maintained for five years. [N.J.A.C. 7:28-51.1]

MICHAEL W LAIRMORE ASSOC
454533 RAD140001 RAD Materials License -License Renewal
Requirements Report

Subject Item: PI 454533 -

7. Except for maintaining labeling as required by N.J.A.C. 7:28-6.1 or 61.1 (10 CFR Part 20 or 71), the licensee shall obtain authorization from the United States Nuclear Regulatory Commission or Agreement State before making any changes in the sealed source, device, or source-device combination that would alter the description or specifications as indicated in the respective Registration Certificates issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State. [N.J.A.C. 7:28-51.1]
8. The licensee shall conduct a physical inventory every six months to account for all sealed 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. [N.J.A.C. 7:28-51.1]
9. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee: A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; B. Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee; C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of the disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal. [N.J.A.C. 7:28-51.1]
10. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee. [N.J.A.C. 7:28-51.1]
11. The device(s)/sealed source(s) specified in this license shall be stored and transported in a manner to ensure against unauthorized handling, possession or removal of radioactive materials. The device(s)/source(s) shall be stored and transported in a manner optimizing the distance between the device and personnel. The licensee is authorized to transport licensed material only in accordance with the provisions of N.J.A.C. 7:28-61.1 (10 CFR Part 71), "Packaging and Transportation of Radioactive Material." [N.J.A.C. 7:28-51.1]
12. 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, specified in section D of this license document. [N.J.A.C. 7:28-51.1]