

November 8, 2021

***Via electronic and USPS mail***

Mr. Steve Shaffer  
Materials Licensing Branch  
U.S. Nuclear Regulatory Commission  
Region I  
2100 Renaissance Blvd., Suite 100  
King of Prussia, PA 19406-2713

RE: Termination Request for Materials License No. 07-17431-01

Dear Mr. Shaffer:

This letter is submitted to request termination of Duffield Associates, LLC's radioactive materials license (07-17431-01). As of January 1, 2021, Duffield Associates, LLC (Duffield) became a wholly owned subsidiary of Hull & Associates, LLC (Hull). On October 18, 2021, the U.S. NRC issued a license amendment to Hull that includes those sealed sources possessed by both Hull and Duffield under Hull's U.S. NRC license (34-24957-02, Amendment 8).

Because Duffield's sealed sources are now included under Hull's license, we are requesting that U.S. NRC terminate Duffield's radioactive materials license. A completed NRC Form 314-***Certificate of Disposition of Materials*** is attached. Please note that required details under Item 2a do not fit in the space provided on the form and so are provided below:

***Item 2.a. Transfer of radioactive materials to the licensee below:***

Name of licensee recipient: Hull & Associates, LLC (NRC license 34-24957-02)

Contact name for licensee recipient: Mark Zakrzewski – RSO (telephone # 216-505-7746)

Date of transfer: November 8, 2021 (see attached letter acknowledging transfer of the radioactive materials)

In addition to Form 314, please find attached copies of current leak test reports for all portable gauges possessed by Duffield.

Finally, this letter provides written confirmation that there have been no incidents involving licensed radioactive material at Duffield's licensed locations. This includes confirmation that there has been no leaking, ruptured, or lost sealed sources or devices under Duffield's license.

Please note that the company names of both Hull and Duffield will be consolidated into a new company name in January 2022. Mark Zakrzewski, RSO for Hull, will submit a license amendment request due to the company name change when it is known and prior to the formal change in company name.

Mr. Steve Shaffer  
November 8, 2021  
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If you have any questions or need further information, please feel free to contact me via email at [mjohnson@duffnet.com](mailto:mjohnson@duffnet.com) or at 302-239-6634.

Very truly yours,

A handwritten signature in blue ink that reads "Michael S. Johnson".

Michael S. Johnson  
Radiation Safety Officer

A handwritten signature in blue ink that reads "W Hank Stack".

W. Hank Stack, P.E.  
VP of Operations

cc: Mark Zakrzewski, RSO – Hull & Associates, LLC

Enclosures: U.S. NRC Form 314  
Statement acknowledging transfer of possession to Hull  
Copies of current leak test reports (20) for all gauges possessed by Duffield

# **ATTACHMENT A**

**U.S. NRC Form 314**



**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, Library, and Information Collections Branch (T-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollects.Resource@nrc.gov](mailto:Infocollects.Resource@nrc.gov), and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0028), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503; e-mail: [oir\\_submission@omb.eop.gov](mailto:oir_submission@omb.eop.gov). The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

LICENSEE NAME AND ADDRESS  Duffield Associates, LLC 5400 Limestone Road Wilmington, DE 19808	LICENSE NUMBER  07-17431-01	DOCKET NUMBER  030-12739
	LICENSE EXPIRATION DATE  May 31, 2023	

**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:  
  
Hull & Associates, LLC, 4 Hemisphere Way, Bedford, OH 44146
  - 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 Johnson	Radiation Safety Officer	302-239-6634	mjohnson@duffnet.com

Mail all future correspondence regarding this license to:  
Hull & Associates, LLC, 4 Hemisphere Way, Bedford, OH 44146

**C. CERTIFYING OFFICIAL**  
**I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT**

PRINTED NAME AND TITLE	SIGNATURE	DATE
W. Hank Stack, P.E.		November 8, 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.**

# CERTIFICATE OF DISPOSITION OF MATERIALS

PLEASE READ THESE INSTRUCTIONS BEFORE COMPLETING NRC FORM 314.

Subpart E of 10 CFR Part 20 establishes the radiological criteria for license terminations/decommissioning of facilities licensed under 10 CFR Parts 30, 40, 50, 60, 61, 70, and 72, as well as other facilities subject to the Commission's jurisdiction under the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended.

## INSTRUCTIONS

### Section B, Item 2.

Licensees should describe the specific radioactive material transfer actions. If radioactive wastes were generated in terminating this license, the licensee should describe the disposal actions taken, including the disposition of low-level radioactive waste, mixed waste, greater-than-Class-C waste, and sealed sources.

### Section B, Item 2.a.

The information provided concerning the transfer of radioactive material to another licensee should specify the date of the transfer, the name of the licensee recipient, an individual contact name and telephone number for the licensee recipient, and the recipient's NRC or Agreement State license number.

### Section B, Item 2.b.

For disposal of radioactive materials, licensees should describe the specific disposal method or procedure (e.g., decay-in-storage). For those cases when radioactive materials are disposed of by a licensed disposal site or by a waste contractor, the licensee should specify the name, address, and telephone number of the licensed disposal site operator or waste contractor.

### Section B, Item 2.c.

"Residual radioactivity," as defined in 10 CFR 20.1003, means radioactivity in 'areas' (structures, materials, soils, etc.) remaining as a result of activities (licensed and unlicensed) under the licensee's control from sources used by the licensee, excluding background radiation. ALARA is defined in 10 CFR 20.1003.

## FILE CERTIFICATES 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 CERTIFICATES TO:

LICENSING ASSISTANT SECTION  
NUCLEAR MATERIALS SAFETY BRANCH  
U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PA 19406-2713

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

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

### IF YOU ARE LOCATED IN:

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 CERTIFICATES TO:

MATERIAL RADIATION PROTECTION SECTION  
U. S. NUCLEAR REGULATORY COMMISSION, REGION IV  
1600 E. LAMAR BOULEVARD  
ARLINGTON, TX 76011-4511

## **ATTACHMENT B**

Documentation of Transfer of Radioactive Material  
Sealed Sources to Hull

# HULL

Environment / Energy / Infrastructure

November 8, 2021

Mr. Michael Johnson  
Radiation Safety Officer  
Duffield Associates, LLC  
5400 Limestone Road,  
Wilmington, DE

RE: Acknowledgment of Transfer of Possession of Radioactive Materials

Dear Mr. Johnson:

As we have discussed, the U.S. NRC issued a license amendment to Hull & Associates, LLC (Hull) on October 18, 2021 that consolidate those sealed sources possessed by both Hull and Duffield Associates, LLC (Duffield) under Hull's U.S. NRC license (34-24957-02, Amendment 8). A copy of the license amendment that lists the sources and locations covered by the license is attached.

This letter is provided as documentation of the transfer of possession of the sources listed under Duffield's radioactive materials license (07-17431-01) to Hull's license (34-24957-02, Amendment 8), effective November 8, 2021.

I understand that you are submitting a request to U.S. NRC to terminate Duffield's license. The company names of both Hull and Duffield will be consolidated into a new company name in January 2022. I will submit a license amendment request to address the company name change when it is known and prior to the formal change in company name. I will copy you on that license amendment request when it is submitted.

Please sign on the line below to acknowledge the transfer of possession of the sealed sources of radioactive materials covered under Duffield's radioactive materials license, listed above, as of November 8, 2021.

Acknowledgment by: Michael Johnson  November 8, 2021

Name Signature Date

W. Hank Stack, P.E.  November 8, 2021

Name Signature Date

Please scan/email me a copy of this letter at your earliest convenience. If you have any questions, please contact me at [mzakrzewski@hullinc.com](mailto:mzakrzewski@hullinc.com) or at 216-505-7746.

Sincerely,



Mark Zakrzewski, CSP  
Health & Safety Officer / Radiation Safety Officer

Attachment: U.S. NRC license amendment dated October 18, 2021

cc: Hank Stack, Duffield Associates, LLC

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NRC FORM 374

PAGE 1 OF 6 PAGES

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 8

**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, 37, 39, 40, 70 and 71, 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 letter dated September 21, 2021,	4. Expiration Date: August 31, 2034
1. Hull & Associates, LLC			5. Docket No.: 030-35065 Reference No.:
2. 4 Hemisphere Way Bedford, OH 44146		3. License No.: 34-24957-02 is amended in its entirety to read as follows:	
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	9. Authorized use
A. Cesium-137	A. Sealed Sources (CPN, Model CPN-131)	A. 10 millicuries per source and 150 millicuries total	A. For use in CPN International Division of InstroTek, Inc. Model MC Series PORTAPROBE portable gauging devices for measuring physical properties of materials.
B. Americium-241	B. Sealed Sources (CPN, Model CPN-131)	B. 50 millicuries per source and 750 millicuries total	B. For use in CPN International Division of InstroTek, Inc. Model MC Series PORTAPROBE portable gauging devices for measuring physical properties of materials.
C. Cesium-137	C. Sealed Sources (AEA Technology/QSA, Inc., Model CDCW556; Isotope Product Laboratories, Model HEG-137)	C. 9 millicuries per source and 225 millicuries total	C. For use in Troxler Electronic Laboratories Model 3411-B, 3430, 3440, 3450 and 4640-B portable gauging devices for measuring physical properties of materials.



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U.S. NUCLEAR REGULATORY COMMISSION

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License No.: 34-24957-02

Docket or Reference No.:  
030-35065

Amendment No. 8

- |   |   |  |  |
|---|---|--|--|
| 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 | 9. Authorized use  |
| D. Americium-241                                      | D. Sealed Sources (AEA Technology/QSA, Inc., Model AMN.V997; Isotope Product Laboratories, Model Am1.NO2, 3021 or 3027) | D. 44 millicuries per source and 1100 millicuries total                        | D. For use in Troxler Electronic Laboratories Model 3411-B, 3430, 3440 and 3450 portable gauging devices for measuring physical properties of materials. |



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U.S. NUCLEAR REGULATORY COMMISSION

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License No.: 34-24957-02

Docket or Reference No.:  
030-35065

Amendment No. 8

CONDITIONS

10. Licensed material shall be used or stored at the licensee's facilities located at:

A. 5400 Limestone Rd., Wilmington, Delaware, 19808

B. 1060 S. Governors Ave., Ste. 101, Dover, Delaware, 19904

Licensed materials may be used at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction within Agreement States. If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction should be obtained from the appropriate state regulatory agency.

11. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in the letter dated September 21, 2021. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.

12. The Radiation Safety Officer (RSO) for this license is Mark F. Zakrzewski.

13. A. Sealed sources and detector cells 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 by an Agreement State. In the absence of a registration certificate, sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months, or at such other intervals as specified.

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NRC FORM 374A

U.S. NUCLEAR REGULATORY COMMISSION

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License No.: 34-24957-02

Docket or Reference No.:  
030-35065

Amendment No. 8

- 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 by 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 185 becquerels (0.005 microcuries) of radioactive material on the test sample. If the test reveals the presence of 185 becquerels (0.005 microcuries) 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. Analysis of leak test samples and/or contamination shall be performed by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is authorized to collect leak test samples but not perform the analysis.
- F. Records of leak test results shall be kept in units of becquerels (microcuries) and shall be maintained for 3 years.
14. Sealed sources or source rods containing licensed material shall not be opened or sources removed from source holders or detached from source rods by the licensee, except as specifically authorized.
15. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 3 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.

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U.S. NUCLEAR REGULATORY COMMISSION

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License No.: 34-24957-02

Docket or Reference No.:  
030-35065

Amendment No. 8

16. 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.
17. Any cleaning, maintenance, or repair of the gauge(s) 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.
18. Except for maintaining labeling as required by 10 CFR Part 20, or Part 71, the licensee shall obtain authorization from the U.S. Nuclear Regulatory Commission 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 certificate of registration issued either by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or by an Agreement State.



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NRC FORM 374A

U.S. NUCLEAR REGULATORY COMMISSION

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

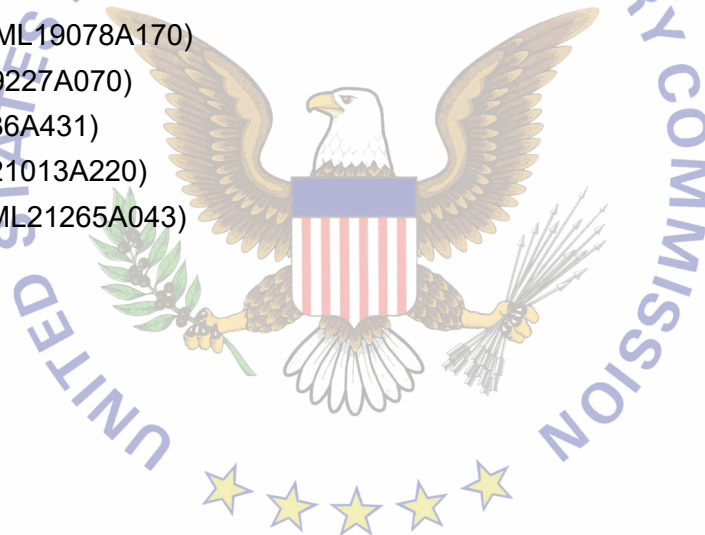
License No.: 34-24957-02

Docket or Reference No.:  
030-35065

Amendment No. 8

19. 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. This license condition applies only to those statements, representations, and procedures that are required to be submitted in accordance with the regulations. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence impose on the licensee requirements that are more restrictive than or in addition to the regulations.

- A. Application dated March 12, 2019 (ML19078A170)
- B. Letter dated August 12, 2019 (ML19227A070)
- C. Letter dated May 15, 2020 (ML20136A431)
- D. Letter dated January 13, 2021 (ML21013A220)
- E. Letter dated September 21, 2021 (ML21265A043)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: October 18, 2021

By: \_\_\_\_\_

Jason M. Kelly, MPH, Health Physicist  
Region III

## **ATTACHMENT C**

Copies of Current Leak Test Reports for All Sealed  
Sources

Covered by Duffield Associates, LLC License



InstroTek Inc.  
1 Triangle Drive  
P.O. Box 13944  
Research Triangle Park, NC 27709  
(919) 875-8371 Fax: (919) 875-8328

Michael Johnson  
Duffield Associates (Wilmington)  
5400 Limestone Road  
Wilmington, DE 19808

Phone: 302-239-6634 // 302-420-1567  
Fax: 302.239.8485


### LEAK TEST CERTIFICATE InstroTek License #092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3440  
Serial Number: 19176  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	4714642	0.000003
Cs-137	50-8823	0.000194

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

CPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137. Refer to the manual for other products.





# INSTROTEK® COMPANIES



INSTROTEK • CPN • HMA • RAINHART

InstroTek Inc.  
1 Triangle Drive  
P.O. Box 13944  
Research Triangle Park, NC 27709  
(919) 875-8371 Fax: (919) 875-8328

Michael Johnson  
Duffield Associates (Wilmington)  
5400 Limestone Road  
Wilmington, DE 19808

Phone: 302-239-6634 // 302-420-1567  
Fax: 302.239.8485


## LEAK TEST CERTIFICATE InstroTek License #092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3440  
Serial Number: 18505  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-13961	0
Cs-137	50-8057	0.000202

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

CPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137. Refer to the manual for other products.

# INSTROTEK® COMPANIES



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1 Triangle Drive  
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Research Triangle Park, NC 27709  
(919) 875-8371 Fax: (919) 875-8328

Michael Johnson  
Duffield Associates (Wilmington)  
5400 Limestone Road  
Wilmington, DE 19808

Phone: 302-239-6634 // 302-420-1567  
Fax: 302.239.8485


## LEAK TEST CERTIFICATE InstroTek License #092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3440  
Serial Number: 16952  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-12375	0
Cs-137	50-6123	0.000168

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

CPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137. Refer to the manual for other products.

# INSTROTEK® COMPANIES



INSTROTEK • CPN • HMA • RAINHART

InstroTek Inc.  
1 Triangle Drive  
P.O. Box 13944  
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Michael Johnson  
Duffield Associates (Wilmington)  
5400 Limestone Road  
Wilmington, DE 19808

Phone: 302-239-6634 // 302-420-1567  
Fax: 302.239.8485

## LEAK TEST CERTIFICATE InstroTek License #092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3430  
Serial Number: 33154  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-9660	0
Cs-137	7508490	0.000192

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by: \_\_\_\_\_  
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

CPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137. Refer to the manual for other products.

# INSTROTEK® COMPANIES



INSTROTEK • CPN • HMA • RAINHART

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## LEAK TEST CERTIFICATE InstroTek License #092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3440  
Serial Number: 15314  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	UNKNOWN	0
Cs-137	UNKNOWN	0.000202

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

CPN gauges are 50 mCi Am241:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am241:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am241:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am241:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137. Refer to the manual for other products.



InstroTek Inc.  
1 Triangle Drive  
P.O. Box 13944  
Research Triangle Park, NC 27709  
(919) 875-8371 Fax: (919) 875-8328

Michael Johnson  
Duffield Associates (Wilmington)  
5400 Limestone Road  
Wilmington, DE 19808

Phone: 302-239-6634 // 302-420-1567  
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This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 4640 Date Swabbed: 10/29/2021  
Serial Number: 1270

Source Type	Serial Number	Reading (uCi)
AmBe-241	UNKNOWN	0.000003
Cs-137	75-3910	0.000137

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

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# INSTROTEK® COMPANIES



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This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3450  
Serial Number: Z-712  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-29637	0
Cs-137	750-9470	0.000171

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

CPN gauges are 50 mCi Am<sup>241</sup>:Be and 10 mCi Cs-137. Humboldt gauges are 40 mCi Am<sup>241</sup>:Be and 10 mCi Cs-137. InstroTek Gauge is 40 mCi Am<sup>241</sup>:Be and 10 mCi Cs-137. Troxler gauges all, except 4640, are 40 mCi Am<sup>241</sup>:Be and 8 mCi Cs-137. Troxler 4640 is 8 mCi Cs-137. Refer to the manual for other products.

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This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3411  
Serial Number: 8624  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-5015	0.000003
Cs-137	40-5903	0.000226

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

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This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3411  
Serial Number: 12088  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-7393	0
Cs-137	40-9458	0.000221

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

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Make: Troxler, Inc.  
Model: 3430+ Date Swabbed: 10/28/2021  
Serial Number: 22543

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-18379	0.000003
Cs-137	75-4277	0.000226

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

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This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 3430  
Serial Number: 26721  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	47-23195	0.000003
Cs-137	75-9856	0.000205

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

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This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

Make: Troxler, Inc.  
Model: 4640  
Serial Number: T2324  
Date Swabbed: 10/29/2021

Source Type	Serial Number	Reading (uCi)
AmBe-241	N/AAmBe-241	0
Cs-137	750-6415	0.000252

**Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.**

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
Date: \_\_\_\_\_

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Make: Troxler, Inc.  
Model: 4640 Date Swabbed: 10/29/2021  
Serial Number: 2542

Source Type	Serial Number	Reading (uCi)
AmBe-241	UNKNOWN	0
Cs-137	UNKNOWN	0.000213

Note: 0.005 MicroCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.

Reviewed by:   
Customer Signature: \_\_\_\_\_

Print Date: 11/4/2021  
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