

MAR 22 1988

License: 40-18139-01  
Docket: 30-14557

Alliance of Architects and Engineers  
ATTN: E. Dallas Wasserburger  
822 Main Street  
Rapid City, South Dakota 57701

Gentlemen:

Thank you for your letter of March 2, 1988, in response to our letter and the attached Notice of Violation dated February 9, 1988. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation, except in the area of corrective steps that will be taken to avoid further violations. We will review the implementation of your corrective actions, including actions you have taken to avoid further violations, during a future inspection to determine that full compliance has been achieved and will be maintained.

Sincerely,

Original Signed By:  
**WILLIAM L. FISHER**

William L. Fisher, Chief  
Nuclear Materials and Emergency  
Preparedness Branch

cc:  
South Dakota Radiation Control Program Director

bcc w/letter from licensee:  
DMB - Original (IE-07)  
R. Martin ✓  
R. Bangart  
R. E. Hall  
W. L. Fisher  
D. Powers  
Inspector  
RIV Files  
NMEPB  
RSTS Operator

8803300266 E30322  
REG 4 LIC 30  
40-18139-01 PDR

RIV:NMIS  
ADGaines;ap ADG  
3/18/88

NMIS *sur*  
LWilborn  
3/21/88

C:NMIS *alp*  
DAPowers  
3/21/88

C:NMEPB *WLF*  
WLFisher  
3/21/88

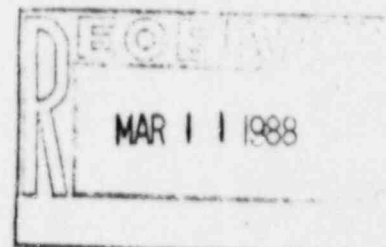
FE07  
11



# the Alliance

THE ALLIANCE OF ARCHITECTS & ENGINEERS  
RAPID CITY • WATERTOWN • SPEARFISH • GILLETTE

822 Main Street, Rapid City, SD 57701  
(605) 342-9470



March 2, 1988

Mr. William L. Fisher  
Nuclear Regulatory Commission Region IV  
611 Ryan Plaza Drive - Suite 1000  
Arlington, TX 76011

RE: Notice of Violation - Docket 30-14557 *188-C1*  
License: 40-18139-01

Dear Mr. Fisher:

This letter is a response to the Notice of Violation dated February 9, 1988, which we received from your office. Our response to each of the six violations is as follows:

1. Personnel in our firm recall writing a letter to amend our license to reflect moving our permanent office location from Spearfish, South Dakota, to Rapid City, South Dakota. However, we cannot find this letter. Since your visit, we have requested an amendment to our license. The letter and the backup information is enclosed. We expect to be in compliance within 30 days of the date on the letter.
2. Again, as stated above, we thought we had amended our license to reflect changing the designated radiation protection officer. However, since your inspection, we have requested an amendment to our license. The request is attached, and we expect to be in compliance by the end of March.
3. We were not aware of the requirement that when we send our Troxler 3411-B gauge in for service, we must have a copy of Servicing Company's license in our files. Since your inspection, we have requested a copy of Nuclear Testing Services license, which we have enclosed.
4. Our firm has inadvertently not kept any formal records of inventory for our sealed sources. However, to perform a leak test, both sources must be wiped and unofficially inventoried. Since your inspector informed us we were not keeping proper records, starting February 1, 1988, we will start our record of inventory and will note on this record the inventory performed the same date as the leak tests we have performed. Enclosed is our record on inventory.

IC-88/506

~~8803210423~~ 2pp.

IE-07

Mr. William L. Fisher  
Nuclear Regulatory Commission Region IV  
March 2, 1988

Page 2

5. Enclosed is a copy of all of our leak test records. We are missing records between April 26, 1983, to March 28, 1984, to March 28, 1984, to April 24, 1985, April 24, 1985, and June 10, 1986, and June 10, 1986, to July 31, 1987.

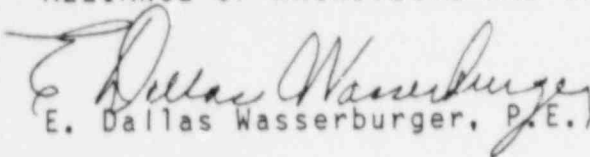
The company does not use our Troxler Moisture-Density Gauge in winter months, between October and April, because construction is halted due to cold weather, and the gauge is in storage and leak tests are not required when the gauge is in storage. This is why there are no leak test records for the above time periods. We always perform a leak test prior to its use in the spring, however, in 1987, the gauge was used for a short period of time prior to the leak test being performed. Our company will, in the future, perform a leak test biannually to assure we are in compliance with our License Condition 13. Our most recent test is February 10, 1988.

- 6a and 6b. We were not aware that we were required to have in our files a copy of Troxler's Performance Test Records on our Troxler case, or a copy of the performance test record on each source design in our files. Since your inspection, we have requested from Troxler a copy of these test records for our files. A copy of each is included with this letter.

We hope this letter has addressed each of the violations. If you have any questions, please call.

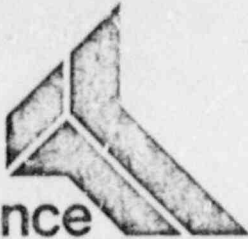
Sincerely,

ALLIANCE OF ARCHITECTS AND ENGINEERS

  
E. Dallas Wasserburger, P.E./L.S.

kc

Enclosures



## the Alliance

THE ALLIANCE OF ARCHITECTS & ENGINEERS  
RAPID CITY • WATERTOWN • SPEARFISH • GILLETTE

822 Main Street, Rapid City, SD 57701  
(605) 342-9470

February 16, 1988

Ms. Joy Marshall  
U. S. Nuclear Regulatory Commission Region 4  
611 Ryan Plaza Drive - Suite 1000  
Arlington, TX 76011

RE: License Amendment No. 2  
License No. 40-18139-01

Dear Ms. Marshall:

This letter is our request for an amendment to the above referenced NRC License. An amendment is required because we have moved our office headquarters from Spearfish, South Dakota, to Rapid City, South Dakota. The following changes should be amended on the license:

- No. 2: Change license address to 822 Main Street, Rapid City, South Dakota 57701
- No. 16: Change address to 822 Main Street, Rapid City, South Dakota 57701
- No. 12: Change the Radiation Safety Officer from D. L. Bjerke to E. Dallas Wasserburger. Mr. Bjerke is now in charge of our Watertown, South Dakota, office. Delete the names of Winston Sharn and Donald Jacobson from the list of employees who are licensed because they no longer work of us. Insert the names of Randy Deibert, Roy Deibert, and E. Duane Stetson. These employees have completed the Troxler Training Course, and a copy of their course certificate is enclosed.

We have also enclosed a floor plan of our building showing the storage area for the Troxler 3411-B. Also enclosed is a check for \$60 for the amendment fee.

We would appreciate your response to this as soon as possible. If you have any questions, please contact this office.

Sincerely,

ALLIANCE OF ARCHITECTS AND ENGINEERS

*E. Dallas Wasserburger*  
E. Dallas Wasserburger, P.E. and L.S.

Enclosures

~~8803210439~~ 7pp

# TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

WASSERBURGER E. DALLAS

of

BRADY CONSULTANTS, INC.

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC.  
TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

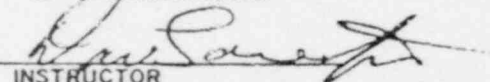
SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

## Radiological Safety

- |  |   |
|--|---|
| 1. Principles and practices of radiation protection.                               | 5. Radioactivity measurement standardization and monitoring techniques and instruments. |
| 2. Leak testing procedures.  | 6. Accident and incident procedures.  |
| 3. Mathematics and calculations basic to the use and measurement of radioactivity. | 7. Procedures for nuclear gauge storage and transportation.                             |
| 4. Biological effects of radiation.  | 8. General safety precautions.  |

## Gauge Operation

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

  
INSTRUCTOR

9-15-78

DATE

William F. Troxler  
PRESIDENT



# NUCLEAR TESTING SERVICES

HEREBY CERTIFIES THAT

E. DUANE STETSON

of

BANNER ASSOCIATES, INC.

HAS SUCCESSFULLY COMPLETED THE NUCLEAR TESTING SERVICES 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.                               | 5. Radioactivity measurement standardization and monitoring techniques and instruments. |
| 2. Leak testing procedures.  | 6. Accident and incident procedures.  |
| 3. Mathematics and calculations basic to the use and measurement of radioactivity. | 7. Procedures for nuclear gauge storage and transportation.                             |
| 4. Biological effects of radiation.  | 8. General safety precautions.  |

## GAUGE OPERATION

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

Donald C. Muir  
INSTRUCTOR

3/17/87  
DATE

*Donald C. Muir*

# TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

ROY DEIBERT

of

ALLIANCE OF ARCHITECTS & ENGINEERS

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

  
DON LORENTZSON  
INSTRUCTOR

9/23/86

DATE

No 18830

W. F. TROXLER  
PRESIDENT

# TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

RANDY DEIBERT

of

ALLIANCE OF ARCHITECTS & ENGINEERS

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

  
DON LORENTZSON

INSTRUCTOR

9/23/86

DATE

No 18829

W. F. TROXLER

PRESIDENT





NUCLEAR TESTING SERVICES  
P. O. BOX 26723  
SALT LAKE CITY, UTAH 84126



REFERENCE TO

FIRST CLASS MAIL ☐ INTER-OFFICE ☐

FOR ALLIANCE OF ARCHITECTS & ENGINEERS  
822 Main St.  
Rapid City, So. Dakota 57701  
Attn: Mr. Wasserburger

HOW TO USE THIS

DAY/TIMER

*Time Saver*

LETTER TO SAVE TIME.

Type or write your reply in the space below. Then mail the white copy to us and keep the pink copy for your files. You'll save time and effort, and we'll have your answer much faster! Thank you.

DATE: January 27, 1988

As requested, I have enclosed a copy of our N.R.C. License No. 43-17936-01 for your records, to cover the repair time when the gauge was in our possession.

A further check of our file for the repair service on your gauge s/n 5436, indicates that a leak test was not taken at that time.

Good luck with your inspection follow up, and if NTS can be of further service please let me know.

Best regards,

Don Muir

*Donald E Muir* NTS

BY

DATE:

BY

## MATERIALS LICENSE

Amendment No. 04

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, 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); and to import such byproduct and source material. 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 application dated March 31, 1983	
1. Nuclear Testing Services		3. License number 43-17936-01 is amended in its entirety to read as follows:	
2. 1515 South Major Street Salt Lake City, Utah 84115		4. Expiration date July 31, 1988	
		5. Docket or Reference No. 030-13675	
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/Americium 241	A. Combined sealed sources (Troxler Dwg. A-100281, Revision B)	A. Not to exceed 10 millicuries of Cesium 137 and 50 milli- curies of Americium 241 per source	
B. Cesium 137	B. Sealed sources (Troxler Dwg. A-102112)	B. Not to exceed 10 millicuries per source	
C. Americium 241	C. Sealed neutron sources (Troxler Dwg. A-102451)	C. Not to exceed 50 millicuries per source	

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MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number

43-17936-01

Docket or Reference number

030-13675

Amendment No. 04

- |                             |   |   |
|-----------------------------|---|---|
| D. Cesium 137/Americium 241 | D. Combined sealed sources<br>(Campbell Pacific Model<br>CPN-131) | D. Not to exceed 10<br>millicuries of<br>Cesium 137 and<br>50 millicuries<br>of Americium 241<br>per source |
| E. Cesium 137               | E. Sealed sources (Campbell<br>Pacific Model CPN-131)             | E. Not to exceed 10<br>millicuries per<br>source  |
| F. Americium 241            | F. Sealed neutron sources<br>(Campbell Pacific Model<br>CPN-131)  | F. Not to exceed 50<br>millicuries per<br>source  |

## 9. Authorized use

- A. For use in Troxler Model 2401, 2402, 2451, or 2452 gauges for moisture/density measurements, demonstration, and training.
- B. and C. For use in Troxler Model 3400 series gauges for moisture/density measurements, demonstration, and training.
- C. For use in Troxler Model 3205, 3215, 3216, 3217, and 3218 gauges for moisture/density measurements, demonstration, and training.
- D. For use in Campbell Pacific Model B(R) series gauges for moisture/density measurements, demonstration, and training.
- E. and F. For use in Campbell Pacific Model MC series gauges for moisture/density measurements, demonstration, and training.

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License num.

43-17936-01

Docket or Reference number

030-13675

Amendment No. 04

## CONDITIONS

10. Licensed material may be used at 1515 South Major Street, Salt Lake City, Utah; 1540 Smily Drive, Salt Lake City, Utah, and 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.
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."
12. Licensed material shall be used by, or under the supervision and in the physical presence of, Donald C. Muir, Dannie K. Pollock, Dannie J. Pollock, Joseph L. Leatham, or individuals who have completed the training program described in the attachment to the licensee's letter dated January 24, 1980.
13. A. (1) Each sealed source containing licensed material, other than hydrogen-3, with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed 6 months. In the absence of a certificate from a transferor indicating that a test has been made within 6 months prior to the transfer, a sealed source received from another person shall not be put into use until tested.  
  
(2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within 6 months prior to the date of use or transfer.



MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number

43-17936-01

Docket or Reference number

030-13675

Amendment No. 04

- B. 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 leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the U. S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Dr., Suite 1000, Arlington, Texas 76011, describing the equipment involved, the test results, and the corrective action taken.
- D. The licensee is authorized to collect leak test samples in accordance with the procedures described in the licensee's application dated March 23, 1983, for analysis by Troxler. Alternatively, leak test samples may be collected and/or analyzed by other persons specifically authorized by the Commission or an Agreement State to perform such services.
14. Sealed sources containing licensed material shall not be opened or removed from source rods by the licensee.
15. The licensee is authorized to perform repairs and maintenance on the moisture/density gauges, including removal of the source rods from the gauges, in accordance with the licensee's letter dated June 21, 1982,

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

PAGE 5 OF 5 PAGES	
License	ber 43-17936-01
Docket or Reference number 030-13675	
Amendment No. 04	

16. The licensee shall conduct a physical inventory every 6 months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for 2 years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturers' names and model numbers, location of sealed sources and the date of the inventory.
17. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provisions of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Material for Transport and Transportation of Radioactive Material Under Certain Conditions."
18. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated March 23, 1983, and letters dated January 24, 1980, and June 21, 1982. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date 2 - 1983

By R. J. Everett  
Material Radiation Protection Section  
Region IV  
Arlington, Texas 76011

## Leak Test Analysis

## NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu\text{Ci}$ . A value of "0" indicates less than .00005  $\mu\text{Ci}$ .
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu\text{Ci}$ .
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu\text{Ci}$ .
6. You will be notified by telephone collect if the test yields greater than .001  $\mu\text{Ci}$  removable activity.

ORIGINAL

Radionuclide: \_\_\_\_\_  
Source Serial: CC2511/CAA1561  
Inst. Model: 3411-B  
Inst. Serial: 5436  
Date of Wipe: 9/13/79  
Individual's Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

Removable Activity

Beta Gamma Alpha

0  $\mu\text{Ci}$  0  $\mu\text{Ci}$

*Claudia Sanders*

Certification

Date: 9/17/79

- Brady Consultants, Inc.
- P.O. Box A
- Spearfish, South Dakota 57783

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

TROXLER ELECTRONIC LABORATORIES, INC.  
POST OFFICE BOX 12057  
RESEARCH TRIANGLE PARK, N. C. 27709

LEAK TEST REPORT

CUSTOMER: Brady Consultants, Inc.  
P.O. Box A  
Spearfish, South Dakota 57783

DATE OF TEST 01-16-79

[illegible]

# Leak Test Analysis

## Removable Activity

Beta Gamma

Alpha

0  $\mu$ Ci

0  $\mu$ Ci

Claudia Landers

Certification

Date: 3-24-81

## NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
6. You will be notified by telephone collect if the test yields greater than .001  $\mu$ Ci removable activity.

ORIGINAL

ORIGINAL

ORIGINAL

ORIGINAL

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

Source Serial: CC 2511 / CAA 1561  
Inst. Model: 3411-B  
Inst. Serial: 5436  
Date of Wipe: 3/20/81  
Individual's Name: Dan Bjerke  
Telephone: 605 642-3914

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

- BRADY CONSULTANTS, INC.
- 550 W. 10th St.
- P.O. Box A
- Spearfish, South Dakota 57783

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

Radionuclide: Am 241 & Cs 137  
Source Serial: CC 2511 / CAA 1561  
Inst. Model: 3411-B  
Inst. Serial: 5436  
Date of Wipe: 3/12/80  
Individual's Name: DAN BIERKE  
Telephone: (605) 642-2656

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

- BRADY CONSULTANTS, INC.
- P.O. Box A
- SPEARFISH, SOUTH DAKOTA 57783

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

# Leak Test Analysis

## Removable Activity

Beta Gamma

Alpha

0  $\mu$ Ci

0  $\mu$ Ci

Claudia Landers

Certification

Date: 3-17-80

## NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
6. You will be notified by telephone collect if the test yields greater than .001  $\mu$ Ci removable activity.

Inst. Model: 3411 B  
Inst. Serial: 5436  
Date of Wipe: 10-19-82  
Individual's Name: \_\_\_\_\_  
Telephone: \_\_\_\_\_

0  $\mu$ Ci      0  $\mu$ Ci  
M. Boyd  
Certification  
Date: 10-19-82

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

- Brady Consultants, Inc.
- P.O. Box 37
- Spearfish, SD 57783

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

- label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
  4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
  5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
  6. You will be notified by telephone collect if the test yields greater than .001  $\mu$ Ci removable activity.

ORIGINAL

### Leak Test Analysis

Radionuclide: Am 241 & Cs 137  
Source Serial: CC-2511 CAA-1561  
Inst. Model: 3411-B  
Inst. Serial: 5436  
Date of Wipe: 4/25/82  
Individual's Name: DAN BIERKE  
Telephone: 605-642-2654

Removable Activity  
Beta Gamma      Alpha  
0  $\mu$ Ci      0  $\mu$ Ci  
Paul Bridges  
Certification  
Date: 4/25/82

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

- BRADY CONSULTANTS, INC.
- 550 COLO. BLVD.
- P.O. Box 37
- SPEARFISH, SOUTH DAKOTA 57783

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

### NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
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5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
6. You will be notified by telephone collect if the test yields greater than .001  $\mu$ Ci removable activity.

### Leak Test Analysis

Radionuclide: Am 241 & Cs 137  
Source Serial: CC-2511 CAA-1561  
Inst. Model: 3411-B  
Inst. Serial: 5436  
Date of Wipe: 10/17/81  
Individual's Name: DAN BIERKE  
Telephone: 605-642-2654

Removable Activity  
Beta Gamma      Alpha  
0  $\mu$ Ci      0  $\mu$ Ci  
Paul Bridges  
Certification  
Date: 10/22/81

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

- BRADY CONSULTANTS, INC.
- 550 COLO BLVD
- P.O. Box A
- SPEARFISH, SOUTH DAKOTA 57783

### NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
6. You will be notified by telephone



Radionuclide: 40-2511/47-1561  
Source Serial: 3411  
Inst. Model: 5436  
Inst. Serial: 414185  
Date of Wipe: D. Byrne  
Individual's Name: (605) 642-2656  
Telephone:

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- Alliance of Architects
- P.O. Box 37
- Spearfish, SD 57783

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

Removable Activity  
Beta Gamma Alpha  
0  $\mu$ Ci 0  $\mu$ Ci  
Marlene Boyd  
Certification  
Date: 4/26/83

2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
6. You will be notified by telephone collect if the test yields greater than .001  $\mu$ Ci removable activity.

ORIGINAL

### Leak Test Analysis

Radionuclide: 40-2511/47-1561  
Source Serial: 3411  
Inst. Model: 5436  
Inst. Serial: 3/27/84  
Date of Wipe: Individual's Name:  
Telephone: R.O. #23254

Removable Activity  
Beta Gamma Alpha  
0  $\mu$ Ci 0  $\mu$ Ci  
Marlene Boyd  
Certification  
Date: 3-28-14

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- BRADY CONSULTANTS, INC.
- Spearfish, SD

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

### NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
6. You will be notified by telephone collect if the test yields greater than .001  $\mu$ Ci removable activity.

ORIGINAL

### Leak Test Analysis

Radionuclide: 40-2511/47-1561  
Source Serial: 3411  
Inst. Model: 5436  
Inst. Serial: 4-11-83  
Date of Wipe: Individual's Name:  
Telephone: 605-62-2656

Removable Activity  
Beta Gamma Alpha  
0  $\mu$ Ci 0  $\mu$ Ci  
Marlene Boyd  
Certification  
Date: 4-26-83

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

- Brady Consultants
- P.O. Box 37

### NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if re-

ORIGINAL

Source Serial: 5436-11-1361  
Inst. Model: 3411-B  
Inst. Serial: 5436  
Date of Wipe: 2-5-88  
Individual's Name: Roy Diebert  
Telephone: 605-342-9470

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

- ALLIANCE OF Architects & Engineers
- Mr. Roy Diebert
- 822 MAIN STREET
- RAPID, CITY, SOUTH DAKOTA
- 57701

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

Beta Gamma Alpha  
0  $\mu$ Ci 0  $\mu$ Ci  
D. Beasley  
Certification  
Date: 2-10-88

- your leak test kit instructions.
  2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
  3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
  4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
  5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
- You will be notified by telephone collect if the test yields greater than .001  $\mu$ Ci removable activity.

ORIGINAL



### Leak Test Analysis

Removable Activity  
Beta Gamma Alpha  
0  $\mu$ Ci 0  $\mu$ Ci  
Wade Hamlin  
Certification  
Date: 7-31-87

### NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.
6. You will be notified by telephone collect if the test yields greater than .001  $\mu$ Ci removable activity.

ORIGINAL

PLEASE TYPE OR PRINT LEGIBLY -  
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- Alliance of Architects and Engineers
- 822 Main Street
- Rapid City, South Dakota 57701
- 
- 

Troxler Electronic Laboratories, Inc., P.O. Box 12057, Research Triangle Park, N.C. 27709 919/549-8661 Telex 579474

### Leak Test Analysis

Removable Activity  
Beta Gamma Alpha  
0  $\mu$ Ci 0  $\mu$ Ci  
D. Beasley  
Certification  
Date: 6-10-86

### NOTES

1. Follow procedures as defined in your leak test kit instructions.
2. Fill out this form and the bag label with required information where applicable. Seal the filter paper in the plastic bag. Place the plastic bag and this form in the pre-addressed envelope.
3. Removable activity will be reported in  $\mu$ Ci. A value of "0" indicates less than .00005  $\mu$ Ci.
4. Federal and state regulations require that sealed sources be removed from service and reports filed if removable activity is greater than .005  $\mu$ Ci.
5. Due to the potential hazard, Troxler recommends that an additional wipe be made if removable activity exceeds .0005  $\mu$ Ci.

ORIGINAL

Radionuclide: 40-2511/1561  
Source Serial: 40-2511/1561  
Inst. Model: 3411  
Inst. Serial: 5436  
Date of Wipe: 5/9/86  
Individual's Name: P. Bjercke  
Telephone: 605/642-2656

PLEASE TYPE OR PRINT LEGIBLY -  
THIS IS YOUR RETURN ADDRESS LABEL

- ALLIANCE OF ARCHITECTS & ENGINEERS
- P.O. Box 37
- SPEARFISH S.D. 57783

JUN 13 1986



TROXLER ELECTRONIC LABORATORIES, INC.  
P.O. BOX 12057, CORNWALLIS ROAD  
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709, U.S.A.  
Telephone 919/549-8661, Cable Troxelec, Telex 6844902

#### TYPE A PACKAGE CERTIFICATION

Troxler Electronic Laboratories, Inc. certifies that their models 1255, 1257, 1351, 1352, 2226, 2376, 2400 Series, 3205, 3216, 3200 Series, 3300 Series, 3400 Series, 3241, 3565, 4545 and 4640 contain Type A quantities of special form radioactive materials and are packed for shipment in Specification 7A Type A containers.

These containers meet the requirements of United States Department of Transportation CFR 173.24 and are designed and constructed to meet the standards as specified in CFR 173.403 and 173.465. These containers are marked and labeled in conformance with CFR 173.444. These regulations are in agreement with the Regulations for the Safe Transport of Radioactive Materials (Safety Series No. 6) of the International Atomic Energy Agency as Amended.

A copy of this Certification must remain on file as required by CFR 173.415(a).

TROXLER ELECTRONIC LABORATORIES, INC.

*Elizabeth Franklin*

Elizabeth Franklin  
Radiation Safety Officer

\*\*\*\*\*  
 \* SPECIAL FORM RADIOACTIVE SOURCE CERTIFICATE \*  
 \* DUPLICATE-PRINTED 25 FEB, 1989 \*  
 \*\*\*\*\*

THIS DOCUMENT MUST BE RETAINED BY THE RECIPIENT UNTIL SUCH TIME THAT THE MATERIAL IS TRANSFERRED INTO THE POSSESSION OF ANOTHER LICENSEE. A COPY OF THIS DOCUMENT MUST BE KEPT WITH THE GAUGE WHILE BEING TRANSPORTED ON PUBLIC HIGHWAYS IN THE UNITED STATES. INTERNATIONAL USERS SHOULD CONTACT THE LOCAL REGULATORY AGENCY TO DETERMINE THE DOCUMENTATION REQUIREMENTS.

SEALED SOURCE

-----  
 CS137  
 40 2511  
 130 GBQ( 8.0MCI)  
 12 MAY, 1978  
 102112  
 GB/140/S  
 C64444  
 02 AUG, 1978

RADIOACTIVE MATERIAL  
 SOURCE SERIAL NUMBER  
 ACTIVITY  
 NEUTRON OUTPUT (NPS)  
 DATE OF MEASUREMENT  
 TROXLER DRAWING NUMBER  
 SPECIAL FORM CERTIFICATE  
 ANSI SPECIFICATION  
 \*\*\*\*DATE OF LEAK TEST\*\*\*\*

SEALED SOURCE

-----  
 AM241:BE  
 47 1561  
 1.48 GBQ( 40MCI)  
 7.5 X10<sup>-4</sup>  
 12 APR, 1978  
 102451  
 GB/7/S  
 C64544  
 02 AUG, 1978

SOURCE(S) ARE CONTAINED IN TROXLER MODEL: 3411 SERIAL: 5436  
 TRANSFERRED ON 02 AUG, 1978. SALES ORDER NUMBER 0981

\*\*TO\*\*  
 CODE : 275000  
 LICENSE: 40-19139-01  
 NAME : PRADY CONSULTANTS INC ENG DEPT  
 550 COLORADO BLVD  
 SPEARFISH SD 57793

\*FROM\*  
 32-192-1  
 TROXLER ELECT. LABORATORIES, INC  
 P. O. BOX 12057  
 RESEARCH TRIANGLE PARK, NC 27709

*Wade Hammi*  
 -----  
 RADIATION SAFETY DEPARTMENT

\*\*\* SPECIAL FORM, PACKAGE & TRANSPORT INFORMATION \*\*\*

- A. SPECIAL FORM- RADIOACTIVE MATERIAL USED IN THIS GAUGE HAS BEEN TESTED BY THE SOURCE MANUFACTURER TO MEET THE REQUIREMENTS AS SPECIAL FORM MATERIAL. THE ABOVE REFERENCED SPECIAL FORM CERTIFICATE HAS BEEN ISSUED BY AN INTERNATIONALLY RECOGNIZED 'COMPETENT AUTHORITY'. THE ABOVE REFERENCED LEAK TEST REVEALED THE REMOVABLE ACTIVITY TO BE LESS THAN 0.005 MICRO-CURIE. A RECOMMENDED WORKING LIFE FOR THIS SOURCE IS 15 YEARS. THIS IS BASED ON TOXICITY, HALF-LIFE, INITIAL ACTIVITY, CAPSULE DESIGN AND OPERATIONAL EXPERIENCE.
- B. PACKAGE CLASSIFICATION- THE ABOVE LISTED NUCLEAR GAUGE HAS BEEN TESTED AND MEETS THE REQUIREMENTS OF US DOT & IAEA REGULATIONS AS A 'TYPE A' PACKAGE. THE GAUGE MUST ALWAYS BE TRANSPORTED IN ITS ACCOMPANYING TRANSPORT CASE TO ENSURE COMPLIANCE WITH THE LABELING REQUIREMENTS. A REPORT OF TESTING AND EVALUATION TO AFFIRM THAT THE GAUGE IS SHIPPED AS A USDOT 7A TYPE A PACKAGE IS MAINTAINED ON FILE AT TROXLER ELECTRONIC LABS. INC. RESEARCH TRIANGLE PARK, NC 27709.
- C. BILL OF LADING:

RADIOACTIVE MATERIAL  
 SPECIAL FORM-N.O.S. UN2974  
 TYPE A PACKAGE  
 RADIOACTIVE YELLOW II  
 T.I. - 0.1