STEWART, WHITE
AND ASSOCIATES, INC.
CONSULTANTS–FOUNDATION ENGINEERING
DRILLING • TESTING • SOILS

1716 EAST 7th STREET
TULSA, OKLAHOMA 74104
PHONE: 918-584-3681

P.O. BOX 966
STILLWATER, OKLAHOMA 74076
PHONE: 405-377-1962

January 20, 1988

U.S. Nuclear Regulatory Commission
Nuclear Materials & Emergency Preparedness Branch
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Attention: Mr. William L. Fisher, Chief

Re: Corrections for NRC Safety Violations
Docket: 30-14903/87-01
License: 35-18351-01

Gentlemen:

This letter is in response to the December 4, 1987 inspection conducted by Larry Ricketson, P.E. with the Nuclear Regulatory Commission and reported by letter dated December 21, 1987.

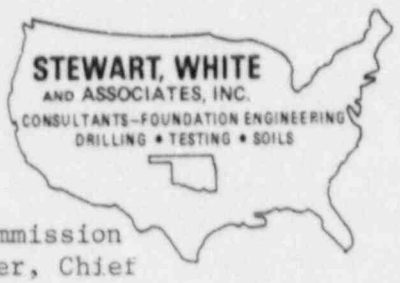
Listed below are the noted violation numbers corresponding to your letter and our reply.

1. Test for leakage: No records could be located for the 4/5/85 to 5/26/86 time range which could indicate we failed to perform the leak test. On approximately July 19, 1986 our firm changed to a different leak testing company that was going to notify us when leak testing was due. This testing was conducted on July 19, 1986 and January 14, 1987 (copies enclosed). Next test was due on July 14, 1987 which was missed due to notification error. This has been corrected as indicated by the enclosed letter from Nuclear Measurement Services, Inc. During the week of January 11, 1988 leak tests were performed on all four of our gauges, but test results have not been received as of this date, January 20, 1988.

2a. Package braced during transportation: At this time a bracing system is in design process. It has not been installed on any of the vehicles yet, but upon completion and installation we will report the system that is used. Design, fabrication and installation is anticipated to be completed by the end of February.

2b. Transportation shipping paper: Correction for this violation has been accomplished for each gauge by laminating a Shipper's Certification For Restricted Articles that indicates the gauge serial number and sources

IE-48-017



activity. A copy to serve as an expample has been enclosed.

2c. & 2d. Packaging and sealed source requirements: A copy of Tests and Certifications from Troxler Electronics Laboratories, Inc. "Surface Moisture-Density Gauges" has been enclosed.

We have enclosed Radiological Safety Certification that was issued by Troxler for the personnel that will use our surface moisture-density gauges.

At this time we would also request that our Radiation Safety Officer be changed from Ralph H. Hoss to Bob Goforth. His Radiological Safety Certification has been enclosed.

Should questions arise or if we can be of further assistance, please contact us.

Sincerely,

Ronald L. Brasel

Ronald L. Brasel, P.E.
Lab Supervisor

RLB/jej

3400-B SERIES

SURFACE MOISTURE-DENSITY GAUGES

TROXLER ELECTRONIC LABORATORIES, INC.

and subsidiary

TROXLER INTERNATIONAL, LTD.

P.O. BOX 12057
RESEARCH TRIANGLE PARK, N.C., 27709
U.S.A.

TELEPHONE: (919) 549-8661
SHIPPING: Cornwallis Road at
Alexander Drive

TELEX: 579474
CABLE: TROXELEC

Branch Offices

West Coast Office
5041-H College Oak Drive
Sacramento, California 95841
Phone (916) 332-7734

Rocky Mountain Office
900 Clarkson Court
Denver, Colorado 80229
Phone (303) 288-3196

Texas Office
2000 E. Randol Mill Rd.
Arlington, Texas 76011
Phone (817) 275-0571

Central Office
37635 North Rt. 59
Lake Villa, Illinois 60046
Phone (312) 587-7273

Southern Office
P.O. Box 110629
Nashville, Tennessee 37211
Phone (615) 331-8537

Northwest Office
P.O. Box 312
Tualatin, Oregon 97062
Phone (503) 638-2523

XIV-B. TESTS AND CERTIFICATIONS

1. The sealed sources in this instrument (Troxler A-102112, 8 mCi cesium-137 and A-102451, 40 mCi americium-241) have been tested to an ANSI rating of C54444 and meet or exceed the requirements of :

   a. Part 15 of the Official Air Transport Restriced Articles Tariff No. 6-D.
   b. IATA regulations relating to carriage of Restricted Articles by air.
   c. IAEA Safety Series No. 6.
   d. US 49 CFR 173.398.
   e. US 14 CFR 103.

   The Special Form Certificate has been issued and the Competent Authority Identification mark is: GB:SFC 140 for the cesium-137 source and GB:SFC 7 for the americium-241 source.

2. The 3400-B Series meets all requirements and is labeled as required by 10 CFR Parts 20 and 34.

3. The packaging for this instrument (Troxler 102187 or 102382) has been tested and meets the requirements of Spec 7A containers for "TYPE A" quantities and is in compliance with:

   a. Parts 6 and 11 of the Official Air Transport Restricted Articles Tariff No. 6-D.
   b. IATA Regulations relating to carriage of Restricted Articles by air.
   c. IAEA Safety Series No. 6.
   d. US 49 CFR 172-178.
   e. US 14 CFR 103.11.

4. The following labels are displayed on the transport containers as required by 14 CFR 103, 49 CFR 170-190 and the Official Air Transport Restricted Articles Tariff No. 6-D:

   a. "USA DOT 7A Special Form Radioactive Material"
   b. Two "YELLOW II" labels indicating the contents as: 8 mCi CS-137/ 40 mCi Am-241.
   c. Troxler label indicating the gauge type and serial number.

Information for UCLA - 2c & 2d

SERIAL NUMBER	SHIPPER'S CERTIFICATION FOR RESTRICTED ARTICLES (TYPE OR PRINT)
5901	

NO. OF PKGS.	PROPER SHIPPING NAME CLASSIFICATION (PER 49 CFR, 172.101)	IDENTIFICATION NO.	NET QUANTITY PER PACKAGE
1	Radioactive Material, Special Form, N.O.S.	UN2974	.0479 Ci

RADIONUCLIDE	FORM	ACTIVITY	CATEGORY OF LABELS	TRANS. INDEX	PACKAGE IDENTIFICATION
CS 137 AM241:BE	Special Form Special Form	.0079 Ci .040 Ci	II Yellow	0.1	Type A

THIS SHIPMENT IS WITHIN THE LIMITATIONS PRESCRIBED FOR CARGO AIRCRAFT ONLY

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS OR TREATMENT.

I HEREBY CERTIFY THAT THE CONTENTS OF THIS CONSIGNMENT ARE FULLY AND ACCURATELY DESCRIBED ABOVE BY PROPER SHIPPING NAME AND ARE CLASSIFIED, PACKED, MARKED, AND LABELED, AND IN PROPER CONDITION FOR CARRIAGE BY AIR ACCORDING TO APPLICABLE NATIONAL GOVERNMENTAL REGULATIONS.

NAME AND TITLE OF PERSON SIGNING CERTIFICATION	EMERGENCY TELEPHONE NO.	SIGNATURE OF SHIPPER
	919-549-8661	

Corrective for violation 2 b.

NUCLEAR MEASUREMENT SERVICES, INC.
2750 NORTHAVEN, SUITE 201 • DALLAS, TEXAS 75229 • (214) 247-0986
839-L I-H 35 NORTH • NEW BRAUNFELS, TEXAS 78130 • (512) 629-3168

December 14, 1987

Mr. Ron Brazel
Stewart White & Asscciates
1716 E. 7th Street
Tulsa, Oklahoma
74104

Dear Ron:

Enclosed, please find copies of the latest Leak Tests we have on file. You were due on July 14, 1987, and will be due again on January 14, 1988.

Use the Leak Test supplies I have sent before January 14, 1988 and you will be added to our computer mailout list.

If you have any questions, please let me know.

Thank you,
NUCLEAR MEASUREMENT SERVICES, INC.

Terry Lindsey
Office Manager

Corrective step # additional information for violation # 1

NUCLEAR MEASUREMENT SERVICES, INC.

INFORMATION — LEAK TEST ANALYSIS

Radionuclide	CS/AM:BE
Source Serial Nos.	CC-2973 CAA-2050
Instrument Model	3411-B
Ins. Serial No.	5901
Date of Wipe	Jan 14 87
Individual's Name	CHRIS BONNICHSEN
Telephone Number	918/747-7270

Removeable Activity

Beta/Gamma: 0 uCi Alpha: 0 uCi

Certification: Bill Dawson

Date: 2-4-87

Name	STEWART WHITE & ASSOCIATES
Address	1716 E. 7TH STREET
City/State	TULSA, OKLAHOMA
Zipcode	74104
Attention	LAB. MANAGER

• • • NOTES • • •

1. Follow procedures as outlined in the instructions.
2. Complete this form and the plastic bag label. Seal filter paper in plastic bag and return to NMSCO for analysis.
3. Removeable activity of "0" indicates less than 0.00005 uCi.
4. Federal & state regulations require that sealed sources be removed from service and regulatory agency notified if activity exceeds 0.0005 uCi.
5. Telephone notification by NMSCO will be made if test yields activity greater than 0.001 uCi.
6. NMSCO recommends that an additional wipe be made if activity exceeds 0.00005 uCi.

NUCLEAR MEASUREMENT SERVICES INC.
2750 NORTHAVEN, #201, DALLAS, TX 752

3160

NUCLEAR MEASUREMENT SERVICES, INC.

INFORMATION — LEAK TEST ANALYSIS

Radionuclide	CS/AM:BE
Source Serial Nos.	CC-3654 CAA-2765
Instrument Model	3411-B
Ins. Serial No.	6523
Date of Wipe	Jan 14 87
Individual's Name	CHRIS BONNICHSEN
Telepho.., Number	918/747-7270

Removeable Activity

Beta/Gamma	Alpha
0 uCi	0 uCi

Certification

Date 2-4-87

Name	STEWART-WHITE & ASSOCIATES
Address	1716 E. 7TH STREET
City/State	TULSA, OKLAHOMA
Zipcode	74104
Attention	LAB. MANAGER

• • • NOTES • • •

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NUCLEAR MEASUREMENT SERVICES INC
2750 NORTHAVEN, #201, DALLAS, TX 7522

3160

NUCLEAR MEASUREMENT SERVICES, INC.

INFORMATION — LEAK TEST ANALYSIS

Radionuclide	CS/AM:BE
Source Serial Nos.	CC-4438 CAA-3697
Instrument Model	3411-B
Ins. Serial No.	7230
Date of Wipe	Jan 14 87
Individual's Name	CHRIS BONNICHSEN
Telephone Number	918/747-7270

Removeable Activity

Beta/Gamma: 0 uCi — Alpha: 0 uCi

Certification

Date 2-4-87

Name	STEWART WHITE & ASSOCIATES
Address	1716 E. 7TH STREET
City/State	TULSA, OKLAHOMA
Zipcode	74104
Attention	LAB. MANAGER

• • • NOTES • • •

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NUCLEAR MEASUREMENT SERVICES INC
2750 NORTHAVEN, #201, DALLAS, TX 7522

3160

NUCLEAR MEASUREMENT SERVICES, INC.

INFORMATION — LEAK TEST ANALYSIS

Radionuclide	CS/AM:BE
Source Serial Nos.	40-8861 47-6648
Instrument Model	3411-B
Ins. Serial No.	11326
Date of Wipe	Jan 14 87
Individual's Name	CHRIS BONNICHSEN
Telephone Number	918/747-7270

Removeable Activity

Beta/Gamma: 0 uCi — Alpha: 0 uCi

Certification

Date 2-4-87

Name	STEWART WHITE & ASSOCIATES
Address	1716 S. 7TH STREET
City/State	TULSA, OKLAHOMA
Zipcode	74104
Attention	LAB. MANAGER

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NUCLEAR MEASUREMENT SERVICES INC
2750 NORTHAVEN, #201, DALLAS, TX 752.

316D

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

BOB GOFORTH

of

STEWART WHITE AND ASSOCIATES, 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.*
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*

Michael E. Nunley
INSTRUCTOR

January, 1981
DATE

W.F. Troxler
PRESIDENT

Nº 20188

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

JOHN CARRINGTON

of

HEMPHILL CORPORATION

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

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Gauge Operation

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

Bill Richardson
INSTRUCTOR

6/3/78
DATE

William F. Troxler
PRESIDENT

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

Nathan H. Meleen

of

Terratech Soil & Foundation Engineers

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

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Gauge Operation

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

Daniel R. Howe
INSTRUCTOR

May 9 & 10, 1978
DATE

William F. Troxler
PRESIDENT

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

Lanberto P. Laxamana

of

Stewart & White Associates

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

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3. *Maintenance*
4. *Field application*
5. *Gauge calibration*

INSTRUCTOR

1-10-81
DATE

William F. Troxler
PRESIDENT

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

Chris Bonnichsen

of

Stewart & White Associates

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

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Radiological Safety

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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

[signature] — INSTRUCTOR

1-10-81 — DATE

William F. Troxler — PRESIDENT

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

Ed Esslinger

of

Stewart & White Associates

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

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Gauge Operation

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

INSTRUCTOR

1-10-81
DATE

William F. Troxler
PRESIDENT

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

RONALD L. BRASEL

of

Stewart-White & Associates

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

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INSTRUCTOR

10-26-78
DATE

WILLIAM E. TROXLER
PRESIDENT