



Wisconsin Power & Light Company

Investor-owned Energy

222 West Washington Avenue P. O. Box 192 Madison, Wisconsin 53701 Phone 608/252-3311

September 2, 1982

Mr. D. G. Wiedeman, Chief
Materials Radiation Protection, Section 1
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Re: License No. 48-18772-02

Dear Mr. Wiedeman:

This refers to your letter of August 16, 1982, with respect to an inspection conducted at our Waunakee Laboratory by Mr. R. E. Burgin on August 11, 1982.

The inspection identified two items of non-compliance. Our response and corrective actions for these items are outlined below:

Item 1 - The inspection noted that the location of our licensed material differs from the location authorized in the license. The reason for this discrepancy and a corresponding request for license modification to rectify the matter were submitted in our letter of August 23, 1982, to your office.

Item 2 - The inspection noted that neither of the two gas chromatograph detector cells at the laboratory had been tested for leakage and/or contamination at the prescribed six month intervals. Our response with respect to each of these is as follows:

- a. Tracor 560 GC Ni-63 Source (15 mc) - Detector Cell Model 11550, Serial No. 4572 (Specific License 48-18772-02).

This source was initially received by the laboratory in October 1981 and installed by the manufacturer. Following your recent inspection, we have located the report of the initial wipe test on the source which was performed by Tracor in June 1981 and their

Mr. D. G. Wiedeman
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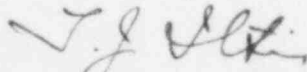
instructions for periodic wipe tests (copy attached herewith, Attachment A). A wipe test was immediately performed (on August 11) and sent to Tracor for analysis. We have now received their written report (Attachment B) indicating negative results (i.e., less than .0005 μ ci). In addition, a prominent placard stating the date for the next required wipe test has been affixed to the chromatograph and the technician has been appropriately instructed to assure against further non-compliance. An internal memorandum from Mr. Flickinger indicating other steps taken to comply with all license conditions is attached for your information (Attachment C).

- b. Varian 6000GC Ni-63 Source - Detector Model 02-001972-00, Serial No. A1825 (General License).

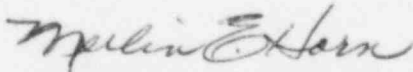
The non-compliance with respect to this source involves only our failure to have complete documentation on file. The source was initially received by the laboratory in July 1982 and installed by the manufacturer. Attachment D herewith is a letter dated August 12, 1982, from Varian which notes that complete documentation was not supplied with the installation; it enclosed certification of the initial wipe test, which was performed on July 1, 1982, and instructions for periodic tests. Placarding of this unit, along with the instructions and postings as noted above should assure against any further non-compliances.

Please let us know if you need any additional information concerning this matter.

Very truly yours,



T. J. Iltis
Director of Nuclear Affairs



Merlin E. Horn
Director of Environmental Affairs

TJI/jml
cc - W. L. Keepers
J. Flickinger
D. Totzke

RECEIVED
AUG 19 1982

TRACOR
SER. 4572

WIPE TEST REPORT

CUSTOMER DAMES AND MOORE
DIVISION 800-D S. DIVISION ST.
ADDRESS WAUNAKEE, WISC 53597

ATTENTION _____
TELEPHONE _____ EXT _____

DETECTOR TYPE NI63 SERIAL NUMBER 4572
INDIVIDUAL PERFORMING WIPE Mary Linn
DATE WIPE PERFORMED 6-12-81

TEST RESULTS

- LESS THAN .0005 μ CI (NORMAL LIMIT)
 BETWEEN .0005 & .005 μ CI (OUTSIDE NORMAL LIMITS)
_____ μ CI (CALCULATED)

TRACOR INSTRUMENTS GROUP
6500 TRACOR LANE
AUSTIN, TEXAS 78721

BY Mary Linn INSPECTOR

NEXT WIPE TEST DATE 12-12-81
performed 11 Aug 82

Tracor with wipe test

INSTRUCTIONS FOR USING PART #111131-0001 WIPE TEST KITS FOR NICKEL 63 DETECTORS

1. WIPE TEST ARE REQUIRED AT 6 MONTH INTERVALS ON ALL IONIZATION DETECTORS CONTAINING NI₆₃ SOURCES. ALL DETECTORS CONTAINING NI₆₃ ARE SHIPPED WITH TWO WIPE TEST KITS AND A CERTIFICATE OF INSPECTION.
2. THE CERTIFICATE OF INSPECTION SUPPLIED WITH THE DETECTOR GIVES THE RESULTS OF INITIAL WIPE TESTS PERFORMED ON THE OUTSIDE SURFACES OF THE DETECTOR PRIOR TO SHIPMENT. THIS INFORMATION SHOULD BE MAINTAINED FOR INSPECTION BY THE AEC.
3. TWO WIPE TEST KITS ARE INCLUDED TO COVER THE FIRST YEAR'S OPERATION OF THE DETECTOR. ONE WIPE TEST SHOULD BE PERFORMED ON THE DATE SPECIFIED ON THE CERTIFICATE OF INSPECTION. THE SECOND WIPE TEST SHOULD BE PERFORMED SIX MONTHS LATER.
4. ADDITIONAL WIPE TEST KITS (TRACOR PART NUMBER 111131-0001) FOR SUBSEQUENT SURVEYS ARE AVAILABLE FROM:

TRACOR, INC.
 6500 TRACOR LANE
 AUSTIN, TEXAS 78721

\$27.50 per kit; includes testing

THE WIPE TEST PROCEDURE IS AS FOLLOWS:

- STEP 1. REMOVE THE SWAB FROM THE PLASTIC CASE.
- STEP 2. MOISTEN THE TIP OF THE SWAB WITH THE SOLVENT PROVIDED IN THE SMALL BROWN BOTTLE.
- STEP 3. GRASPING THE HOLDER, RUB THE MOISTENED TIP OF THE SWAB OVER THE OUTSIDE SURFACES OF THE DETECTOR AND ALL SURFACES IMMEDIATELY ADJACENT TO THE DETECTOR. BE PARTICULARLY CAREFUL TO WIPE THE OUTLET TUBE TERMINUS.
- STEP 4. REPLACE THE SWAB IN THE PLASTIC CASE, BEING CAREFUL NOT TO TOUCH THE COTTON TIP TO THE PLASTIC.
- STEP 5. FILL IN THE INFORMATION REQUESTED BELOW.
- STEP 6. PLACE THIS SHEET ALONG WITH THE PLASTIC CASE CONTAINING THE SWAB IN THE SHIPPING CONTAINER PROVIDED AND MAIL BY THE PARCEL POST TO:

TRACOR, INC.
 6500 TRACOR LANE
 AUSTIN, TEXAS 78721
 ATTN: RADIATION OFFICER

DATE OF SWAB TEST _____
 DETECTOR SERIAL NO. 4572

SIZE A	CODE IDENT NO. 19397	112619	-
SCALE		SHEET	2

Rec'd D+M 25 Aug 82
LHJ

WIPE TEST REPORT

CUSTOMER DAMES AND MOORE
DIVISION 800-D S. DIVISION ST.
ADDRESS WAUNAKEE, WISC 53597

ATTENTION Denny Totzke
TELEPHONE 608 849-5833 EXT _____

DETECTOR TYPE NI63 SERIAL NUMBER 4572
INDIVIDUAL PERFORMING WIPE Denny Totzke
DATE WIPE PERFORMED 11 Aug 82

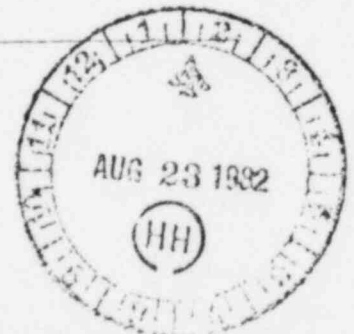
TEST RESULTS

- LESS THAN .0005 μ CI (NORMAL LIMIT)
 BETWEEN .0005 & .005 μ CI (OUTSIDE NORMAL LIMITS)
_____ μ CI (CALCULATED)

TRACOR INSTRUMENTS GROUP
6500 TRACOR LANE
AUSTIN, TEXAS 78721

BY Mary E. ... INSPECTOR

NEXT WIPE TEST DATE 2-23-83



Attachment B

 Wisconsin Power & Light Company

DATE August 13, 1982

SUBJECT Recent NRC Inspection of Dames & Moore Waunakee Field Office

TO Ted Iltis

cc - Kevin Vesperman
Merlin Horn
Denny Totzke, Dames & Moore

The following action has been taken to meet the requirements of CFR10 Parts 19 and 20 pertaining to the sealed Ni⁶³ source used in the Tracor gas chromatograph at Waunakee:

1. Form NRC-3, "Notice to Employees," has been posted in the immediate vicinity of the chromatograph.
2. A label has been placed on the front of the Tracor unit, indicating the date of the most recent leak test, results, and date of next leak test.
3. The following records are on file at the Waunakee Field Office and in Madison in the Environmental Affairs Department:
 - a. Dates of records of leak tests, and names of firms that ran the tests;
 - b. Detector specifications and manufacturer's operating instructions;
 - c. Copy of NRC License Number 48-18772-02, including CFR10 PARTS 19, 20, 30 and 170;
 - d. Records indicating dates of receipt and transfer of detectors.

A notice has been posted indicating the location of this information (see attached copy).

4. Recent NRC information notices (December 5, 1981, and February 9, 1982) were posted as per CFR 10.
5. A wipe test was sent to Tracor on August 12 for analysis.

In addition, records will be kept for the detector present in our

Attachment C p. 1

Ted Iltis
Page Two
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Varian 6000 gas chromatograph, even though this unit is not included in our specific license because it is licensed by Varian.

Let me know immediately of any additional requirements you are aware of pertaining to the Ni⁶³ sources we operate.

John Flickinger
John Flickinger
Environmental Affairs

JF/jml
Attach.

NOTICE TO EMPLOYEES

THE FOLLOWING DOCUMENTS ARE ON FILE AT THIS LOCATION
IN CONFORMANCE WITH CFR10 PART 19:

1. MANUFACTURER'S OPERATING INSTRUCTIONS FOR THE Ni⁶³
SOURCE.
2. A COPY OF NRC LICENSE NUMBER 48-18772-02 AND CFR 10
PARTS 19, 20, 30 AND 170.
3. RECORDS INDICATING DATES OF RECEIPT AND TRANSFER
OF Ni⁶³ SOURCES.

FILES MAY BE OBTAINED BY CONTACTING MR. DENNIS TOTZE,
DAMES & MOORE, OR MR. JOHN FLICKINGER, WISCONSIN POWER
& LIGHT COMPANY.



August 12, 1982

Varian Source.

Dawes & Moore
800 D South Drive
Wannakee, WI 53597

ATTENTION: Denny Tozke

Dear Sir:

Enclosed please find the certificate of leak test you requested.
I also sent you a couple of letters which are normally part of the
documentation package which you apparently did not receive.

My apologies for our errors.

You may recall that I mentioned that the 02-001972-00 detector was
actually for the 3700 GC while the 03-908377-00 was created for
Vista models (4000/6000). The detectors are actually identical,
however, the cables supplied in the 03-908377-00 are about 9 inches
long while the 02-001972-00 does not include cables since they are
part of the GC. So since you already were in possession of the
cables, the Park Ridge Office supplied you with an 02-001972-00.

*This is what we have
JVO*

While not totally correct, it does not cause a problem as long as
you are aware of it when you read the manual.

Sincerely,

VARIAN INSTRUMENT GROUP

Jerry Van Osenbruggen
Radiation Safety Officer

JVO/mc

Enclosures

Attachment D p. 1



Dear Customer:

The Nickel 63 Electron Capture Detector (ECD) kits, P/N 02-001972-00 and 03-908377-00, for use on the Varian Instrument Group (VIG) Gas Chromatograph Model 3700 and Vista Series are manufactured and distributed under license number 3092-07 GL issued by the California Department of Health. This license authorizes VIG to distribute these ECD's to persons who are generally licensed.

This means that you are not required to possess a specific license. By acquiring this radioactive material-containing device, you have committed yourself to following the regulations and you automatically became a general licensee. The U.S. Nuclear Regulatory Commission and all states with which the NRC has an agreement for the exercise of regulatory authority, require that VIG inform them of your possession. The regulations in the ECD Instruction Manual (see pages 5-4 & 5 for the 3700 Model and pages 2-17 & 18 for Vista Series) copied from the California Administrative Code, Title 17, are substantially the same as those you are subject to if you use the ECD outside California.

The last pages of this writing show a list of the addresses of the U.S. NRC and the Agreement States. The ones marked with (*) require, if your Nickel 63 ECD is used under their jurisdiction, that you send in the completed Registration of Radiation Source form in duplicate (enclosed) within 10 days after receipt of the device. The other states do not require any action other than when the survey indicates a leakage above .005 μ Ci, loss or if damage to the device makes one suspect that radioactive material may have been released. The State of California Radiologic Health Section is the only state requiring renewal of this registration every July of even-numbered years.

The regulations indicate that a leak test is required every six (6) months to determine if the exterior of the ECD has less than .005 μ Ci of removable Nickel 63. The leak test consists of two parts: (1) taking the wipe, and (2) analyzing the activity removed by the wipe. VIG ECD users are not required to be specifically licensed to take their own wipes when using wipe kit 03-949041-00. The analysis of the wipe must be performed by a specific licensee. On your request, a wipe kit will be sent to you in five (5) months. For your convenience a postage paid, return addressed form is enclosed with the ECD to inform VIG of your intentions. Please complete and return whether or not you are interested in our services. If you decide to use VIG's services to have your wipes analyzed, we will provide you with a record and send you another wipe kit five (5) months later. There is a small charge for the analysis.

With this letter is a certificate of leak test which VIG is required to provide you. This important document must be available for display on request by a radiation authority.

We urge you to read the Manual, particularly the Radiation Safety Section.

Sincerely,

Jerry Van Osenbruggen
 Radiation Safety Officer

Attachment D p.2

copy

IMPORTANT DOCUMENT

Keep this leak test certificate for display on request by
an inspecting radiation authority.

CERTIFICATE OF LEAK TEST

This Electron Capture Detector was tested for leakage of its
Nickel 63 source and for tritium contamination.

Equipment used: LS 100 Beckman Liquid Scintillation Counter

The total removable amount of activity on the top of the tower
cover, tower top and inside (upper part), and upper part of the
cell combined was analyzed to be:

^{63}Ni .093 x 10⁻³ microCuries

vs < 5 x 10⁻³ required

Date: 7/1/82

Source Rec'd 7/82

02-001972-00
Type of Kit

A 1825
Serial Number

Jerry Van Osenbruggen

Jerry Van Osenbruggen, R.S.O.

VARIAN INSTRUMENT GROUP
2700 Mitchell Drive
Walnut Creek, CA 94598

Telephone: (415) 939-2400, ext. 350