

Charlie A. Dooley  
County Executive



Dolores J. Gunn, MD  
Director

April 26, 2010

NRC Material License No. 24-11263-01

U.S. Nuclear Regulatory Commission  
Region VIII  
Attention: Michael G. Herr, CHP  
2443 Warrenville Road, Suite 210  
Lisle, IL 60532-4352

RE: Additional information to control number 318717

Dear Mr. Herr:

I have addressed the questions which you posed in your March 29, 2010, response to my request to amend our NRC License.

We conducted the prepackaging leak tests of the three sources prior to their removal by Varian. Those results may be found as **Figures 11, 12, & 13**, appended. Since Varian holds the general license on those sources, they should have provided NRC with their own leak test results prior to disposal, and Certificate of Disposal.

The discrepancy between the nickel-63 sealed sources, disposed of by Varian, being different than what is permitted by our specific NRC License is as follows:

**Table 1** shows the traceability of NI-63 EDC detectors (cells) under the custody of Saint Louis County Department of Health (DOH). The numbers in the last column of the table are keyed to the original supporting documentation, and are the same references as those referred to in the body of this document. The earliest record of Tracor Ni-63 Cell 4187 in a DOH facility occurs with a DOH wipe test on 10/17/80, **Figure 3**. We have record of a pre-installation wipe test by Tracor, 10/29/79. The earliest record of DOH NRC License No 24-11263-01 starts with Amendment No. 09, application date 6/16/82, expiration, 12/31/87, **Figure 1**, which specifically identifies the source by Cell Model 114800-3201. Carlton Lorfing, Radiation Safety Officer, who handled the disposal of cell 4187, currently with Thermo Inc., confirmed that DOH possessed the cell under its own specific NRC License. DOH subsequently returned Cell 4187 to Tracor (then Tremetrics) after passing its leak test, and accompanied with letter of return authorization, **Figure 4**.

Trimetrics, replied with Certificate of Disposal, **Figure 5** on 08/23/94. At that time, we were governed by amendment 15 of our NRC license, **Figure 2**, which continued to specifically list the Tracor cell by model number without amendment.

RECEIVED APR 28 2010

ENVIRONMENTAL HEALTH LABORATORIES

111 South Meramec Avenue • Saint Louis, MO 63105 • PH 314/615-8324 • FAX 314/615-1648  
TTY 314/615-8428 or 800/735-2966 • web <http://www.stlouisco.com>  
An Equal Opportunity Employer - Services Provided on a Non-Discriminatory Basis

The earliest record of two Varian Ni-63 cells of 15 mCi each, occurred with Cell A4121, Varian Leak Test 3/28/85, **Figure 7**; and Cell A4122, Varian Leak Test 3/28/85, **Figure 8**, under Varian's General NRC License No. CA662101B, **Figure 6**. DOH subsequently acquired Varian Cell A10171, Varian Leak Test 11/3/93, **Figure 9**. All three cells were in our custody from DOH NRC License, Amendments 9 through 19 all of which specify the Tracor Detector Cell Model 114800-3201 (Cell 4187) as the "Chemical and/or physical form," but "No single cell to exceed 15 millicuries" (Amendments 9 to 11); "No single cell to exceed 20 millicuries" (Amendments 12 to 17); and "3 cells not to exceed 15 millicuries each." (Amendments 18 to 20). After leak testing (**Figures 11, 12 & 13**) Varian removed cells A4121, A4122, & A10171 per Return Authorization **Figure 10**, and verified receipt with Certificate of Transfer **Figure 14**.

Please let me know if your need further detailed information.

Sincerely,



Robert A. Nicolotti, PhD  
Laboratory Manager & Radiation Safety Officer

RAN/gm

Attachments

Cc: Larry Marchin, Chemist/Certification Officer, US EPA  
Terry Timmons, Environmental Specialist, MDNR

**Table 1**

History of Ni-63 EDC Detectors Under Saint Louis County Department of Health Custody											
Source	Mfg.	Model	Serial	Acquired	WT <sup>1</sup> ( $\mu$ Ci)	Disposed	WT <sup>1</sup> ( $\mu$ Ci)	COD <sup>2</sup>	NRC License	License Holder	Ref. Doc. # <sup>3</sup>
Ni-63 (15mCi) ECD	Tracor, after 1990 Trimetrics, Inc	114800-3201 (kit), or 111019, or 115500 (cell)	4187	10/17/80	<0.005	--	--	--	24-11263-01 Specific	Saint Louis County Health	<b>1, 3</b>
				--	--	08/24/94	<0.005	Y	L01186, Texas	Trimetrics, Inc	<b>2, 4, 5</b>
Ni-63 (15mCi) ECD	Varian, Inc	02-001972-00	A4121	03/28/85	<0.005	08/27/09	<0.005	Y	3092-07GL	Varian, Inc.	<b>6, 7, 10, 11</b>
Ni-63 (15mCi) ECD	Varian, Inc	02-001972-00	A4122	03/28/85	<0.005	08/27/09	<0.005	Y	3092-07GL	Varian, Inc.	<b>8, 12</b>
Ni-63 (15mCi) ECD	Varian, Inc	02-001972-00	A10171	01/03/93	<0.005	08/27/09	<0.005	Y	3092-07GL	Varian, Inc.	<b>9, 13, 14</b>

<sup>1</sup> WT = Wipe test result

<sup>2</sup> Certificate of Disposal

<sup>3</sup> Ref. Doc. # = Appended Reference Document number

Figure 1: NRC License No 24-11263-01, Amendment No. 09 – During acquisition of Cell 4187

NRC License No. 24-11263-01 (22-81)		U.S. NUCLEAR REGULATORY COMMISSION		PAGE <u>1</u> OF <u>4</u> PAGES	
		<b>MATERIALS LICENSE</b>		Amendment No. 09	
<p>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 1, Parts 30, 31, 32, 33, 34, 35, 36, 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.</p>					
Licensee			In accordance with application dated June 16, 1982, 3. License number 24-11263-01 is amended in its entirety to read as follows:		
1. St. Louis County Department of Community Health and Medical Care					
2. Environmental Health Laboratories 801 South Brentwood Boulevard Clayton, Missouri 63105			4. Expiration date December 31, 1987		
			5. Docket or Reference No.: 030-05125		
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. Any byproduct material with Atomic No. 1 through 83, inclusive		A. Any		A. 5 millicuries total	
B. Nickel-63		B. Foil Sources (Tracor Detector Cell Model 114600-3201)		B. No single cell to exceed 15 millicuries	
C. Hydrogen-3		C. Scandium Tritide Foil Source (Varian Detector Cell Model 96-000094-00)		C. No single cell to exceed 1 curie	
D. Americium-241		D. Any		D. 15 microcuries	
9. Authorized Use:					
A. and D. Preparation of and use as analytical samples or standards and for instrument calibration.					
B. For use in Tracor Gas Chromatograph(s) for sample analysis.					
C. For use in Varian Gas Chromatograph(s) for sample analysis.					
with conspicuously etched or stamped radiation caution symbols without a color requirement.					

Figure 2: NRC License No 24-11263-01, Amendment No. 15 – Period of Disposal of Cell 4187 and Acquisition of Cells A4121, A4122, & A10171

NRC FORM 374  
(10-88)

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 1 OF 4 PAGES  
Amendment No. 15

**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 1, Parts 30, 31, 32, 33, 34, 35, 39, 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). 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.

<p style="text-align: center;">Licensee</p> <p>1. St. Louis County Department of Health Environmental Health Laboratories</p> <p>2. 111 South Meramec Clayton, MO 63105</p>	<p>In accordance with application dated May 18, 1993</p> <p>3. License number 24-11263-01 is renewed in its entirety to read as follows:</p> <hr/> <p>4. Expiration date June 30, 1998</p> <p>5. Docket or Reference No. 038-05125</p>
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material with Atomic Nos. 83 through 88, inclusive</p> <p>B. Uranium (natural)</p> <p>C. Americium-241</p> <p>D. Nickel-63</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>Foil source Trace Detector cell Model 12800-3201 or Model 111019</p>
<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 5 millicuries total</p> <p>B. 0.1 microcurie</p> <p>C. 15 microcuries</p> <p>D. No single cell to exceed 20 millicuries</p>	
<p>9. Authorized Use:</p> <p>A., B. and C. Preparation of and use as analytical samples or standards and for instrument calibration. ★★ ★★ ★★ ★★</p> <p>D. To be used in gas chromatograph for sample analysis.</p>	
<p><b>CONDITIONS</b></p>	
<p>10. Licensed material shall be used only at the licensee's facilities located at 111 South Meramec, Clayton, Missouri.</p> <p>11. Licensed material shall be used by, or under the supervision of, Linda Blackburn, B.S., M.T., Jacqueline Dohm, B.S., John Niederkorn, B.A. or Wayne E. Black, Ph.D.</p> <p>12. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.</p>	

Figure 3: DOH Wipe test of Cell 4187 Upon Installation  
10/17/80

WIPE TEST REPORT

*Jackie  
For your files  
Dr Black  
10/22/80*

CUSTOMER Environmental Health Lab  
DIVISION \_\_\_\_\_  
ADDRESS 901 Brentwood  
Clayton Mo.  
ATTENTION \_\_\_\_\_  
TELEPHONE \_\_\_\_\_ EXT \_\_\_\_\_  
DETECTOR TYPE N163 SERIAL NUMBER 4187  
INDIVIDUAL PERFORMING WIPE M. Quire  
DATE WIPE PERFORMED 10-17-80

TEST RESULTS

- LESS THAN .0005  $\mu$ CI (NORMAL LIMIT)
- BETWEEN .0005 & .005  $\mu$ CI (OUTSIDE NORMAL LIMITS)
- \_\_\_\_\_  $\mu$ CI (CALCULATED)

TRACOR INSTRUMENTS GROUP  
6500 TRACOR LANE  
AUSTIN, TEXAS 78721

BY M. Quire INSPECTOR

NEXT WIPE TEST DATE 4-17-81

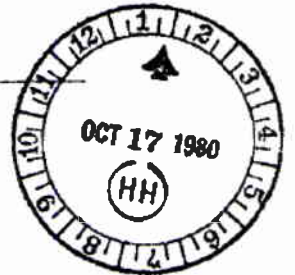


Figure 4: Letter with Return of Cell 4187 to Tremetrics,  
08/16/94

*St. Louis County  
Department of Health*

August 16, 1994

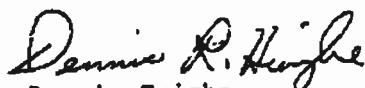
Finigan Tremetrics  
2215 Grand Avenue Parkway  
Austin, Texas 78728

Dear Sirs:

We are returning ECD Detector #4187 on return  
Authorization No. ARA - 2387 for proper disposal,  
as per phone conversation with Gary Regair on  
this date.

Thank you for your assistance and feel free to  
contact me if you have any questions.

Sincerely yours,



Dennis Huighe  
Instrument Specialist  
Environmental Health Laboratories  
St. Louis County - DOH

DB:yā

*Buzz Westfall  
County Executive*

*Alpha Fowler Bryan, M.D.  
Director*

*111 S. Main Street  
Clayton, Missouri 63105*

*Phone: (314) 854-6000  
Fax: (314) 854-6435  
TDD: (314) 854-6446*

*An equal opportunity employer*

Figure 5: Certificate of Disposal of Cell 4187, 08/24/94



An ISO 9001 registered Company

TREMETRICS CHROMATOGRAPHY GROUP

2215 Grand Avenue Plwy  
Austin, TX 78728-3812  
(512) 251-1400  
Fax: (512) 251-1586

RECORD OF DISPOSAL OF SEALED DETECTOR  
PER STANDARD TREMETRICS PROCEDURES

NAME OF VENDOR: TREMETRICS INC.  
2215 GRAND AVE PARKWAY  
AUSTIN, TEXAS 78728  
(512) 251-1400

DATE OF DISPOSAL:

LICENSE NUMBER: TEXAS L01186  
EXPIRES 04/31/1996

DATE RECEIVED | DATE SCRAPPED  
08/23/94 | 08/24/94

LICENSEE INFORMATION

COMPANY NAME: ST. LOUIS COUNTY DEPT HMC

111 South Merame  
2nd Floor  
CITY: Clayton  
STATE: MO  
ZIP: 63106

PERSON RESPONSIBLE FOR CONTROL OF DEVICE

NAME: Dennis Huighe  
TITLE:  
TELEPHONE  
NUMBER: 314-854-6833

FOR EACH DEVICE PROVIDE THE FOLLOWING

MODEL NUMBER	SERIAL NUMBER	ISOTOPE	ACTIVITY AND UNIT
115500	4187	NI63	Less than 20mci

RADIATION SAFETY OFFICER  
CARLTON LORFING



Figure 6: Varian General NRC License for Cells A4121, A4122, & A10171, Model No: 02-1972-00

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES  
SAFETY EVALUATION OF DEVICE

(Amended in entirety Feb. 21, 1986)

NO.: CA662D101B

DATE: October 5, 1983

PAGE 4 OF 6

DEVICE TYPE: Gas Chromatograph Detector Cell

DESCRIPTION: (Continued)

In gas chromatograph instruments with dual system capability (two-channel type), two types of detector kits can be placed in one oven. The upper limit temperature safety switch is adjusted for the lower temperature detector kit (225°C 325°C). The higher temperature can only be attained when the low temperature detector kit is removed.

MODEL DESIGNATION:

<u>Source P/N</u>	<u>Foil Replacement Kit P/N</u>	<u>Detector Cell Assembly P/N</u>	<u>Detector Kit P/N</u>	<u>GC Instrument Model Number</u>		
56-000602-00	02-000320-00	01-000046-00 <sup>0</sup>	02-000104-00 <sup>0</sup>	550,600,204B,204C 1500B, 1500C		
			02-000650-00	940,1400,1700,1800 2400 (B Chan),2700 2800		
		01-000383-00 <sup>0</sup>	02-000966-01	2400 (A Chan)		
			02-000966-02	1200,2100		
56-000610-00	03-949031-00	01-000383-00 <sup>0</sup>	02-000390-00 <sup>0</sup>	1731,1732,2731,2732		
			02-000969-00	02-000965-00	940,1400,1700,1800 2400 (B Chan),2700 2800	
		02-000965-01		2400 (A Chan)		
		02-000965-02		1200,2100		
		01-001028-01	03-917463-01	02-000771-00 <sup>0</sup>	204A,204B,204C,1500A 1500B,1500C	
				01-001028-00	02-001972-01	Vista/6000 Series 3000 Series
					03-908377-01 <sup>0</sup>	
03-917463-00	03-917440-01	02-001972-00*				
		03-908377-00 <sup>0</sup>				
		03-917440-00*				

<sup>0</sup>Production and sale has been discontinued.

\*General license device.

NOTE: 03-908377-00 is interchangeable with 02-001972-00.  
03-908377-01 is interchangeable with 02-001972-01.

Figure 7: Leak Test of Varian Cell A4121 Upon Acquisition, 3/28/85

IMPORTANT DOCUMENT

.....  
Keep this certificate and future leak test records for display on request by an inspecting radiation authority. Failure to supply records on request may result in suspension of your license and a possible fine.  
.....

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:

<sup>63</sup>Ni - 0.60 x 10<sup>-3</sup> microCuries

Date: 3-28-85

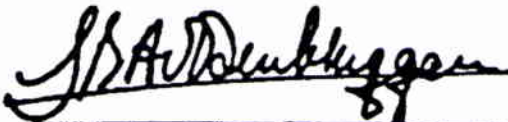
02-001972-00  
Type of Kit

A4121  
Serial Number

NOTE:

The Electron Capture Detector must be leak tested every six (6) months.

Consult your ECD manual's Radiation Safety Section for instructions and regulations.



Jerry Van Osenbruggen, R.S.O.

VARIAN INSTRUMENT GROUP  
2700 Mitchell Drive  
Walnut Creek, CA 94598

Telephone: (415) 945-2133

Figure 8: Leak Test of Varian Cell A4122 Upon Acquisition,  
3/28/85

IMPORTANT DOCUMENT

Keep this certificate and future leak test records for display on request by an inspecting radiation authority. Failure to supply records on request may result in suspension of your license and a possible fine.

CERTIFICATE OF LEAK TEST

This Electron Capture Detector was tested for leakage of its Nickel <sup>63</sup> 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:

<sup>63</sup>Ni - 0.56 x 10<sup>-3</sup> microCuries

Date: 3-28-85

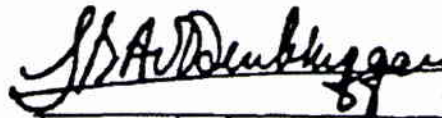
03-001972-00  
Type of Kit

A 4122  
Serial Number

NOTE:

The Electron Capture Detector must be leak tested every six (6) months.

Consult your ECD manual's Radiation Safety Section for instructions and regulations.



Jerry Van Osenbruggen, R.S.O.

VARIAN INSTRUMENT GROUP  
2700 Mitchell Drive  
Walnut Creek, CA 94598

Telephone: (415) 945-2133

Figure 9: Varian Leak Test of Cell A10171, 11/3/93

## IMPORTANT DOCUMENT

Keep this certificate and future leak test records for display on request by an inspecting radiation official. Failure to supply records may result in a citation, suspension of your license, and/or a fine.

### CERTIFICATE OF LEAK TEST

The Electron Capture Detector (ECD) indicated below has been surveyed for external radioactive contamination as indicated in the  $^{63}\text{Ni}$  Radiation Safety Manual, Publication 03-913999-00, paragraph 3.

Isotope:  $^{63}\text{Ni}$

Date: 11-3-93

Model No.: 02-1972-00

Serial No.: A10171

Cell No.: 11482  
0945B2

The removable radioactivity from the surface of this ECD cell was measured to be:

.00001 microcuries

**NOTE:** Varian Chromatography Systems is required by the U.S. NRC and the California Department of Health to inform you that the  $^{63}\text{Ni}$  ECD must be leak tested every 36 months.

The California Department of Health - Radiation Authority has granted an extension of the time required between leak tests (for Varian ECDs) from the standard 6 month interval, to a 36 month interval per "Registry of Radioactive Sealed Sources and Devices, Safety Evaluation of Devices," Number CA662D101B, which is on file with all radiation authorities.



Larry Steinwandt  
Radiation Safety Officer  
Varian Chromatography Systems  
2700 Mitchell Drive  
Walnut Creek, CA 94598-1675

Figure 10: Return Authorization for Return of Cells A4121, A4122, & A10171, 08/21/09



Varian, Inc.  
2700 Mitchell Drive  
WALNUT CREEK CA 94598-1675  
USA  
Tel: 925-939-2400  
Fax: 925-945-2380

**RETURNS**

Page 1 of 1  
Date: 08/21/2009

**VARIAN**

Ship To:  
317754  
ST LOUIS COUNTY HEALTH DEPT  
ATTN: WAYNE WILHELM  
ENVIRONMENTAL HEALTH LABS  
111 SOUTH MERAMEC  
CLAYTON MO 63105-0000  
USA

Bill To:  
317754  
ST LOUIS COUNTY HEALTH DEPT  
ATTN: ACCOUNTS PAYABLE  
111 SOUTH MERAMEC  
CLAYTON MO 63105-0000  
USA

Sold To:  
317754  
ST LOUIS COUNTY HEALTH DEPT  
ATTN: ACCOUNTS PAYABLE  
111 SOUTH MERAMEC  
CLAYTON MO 63105-0000  
USA

PAYMENT TERMS: Net 30 days			Ultimate destination: US USA	
PURCHASE ORDER WW1234	P.O. DATE 08/21/2009	RETURN ORDER 1200029642	DATE OF SALE 08/21/2009	PRIORITY 13 AA Std Normal
CARRIER BILLING ONLY	CURRENCY USD	FREIGHT TERMS None (Billing Only)	TRADE TERMS FOB FOB ORIGIN	P/REQUISITION
SHIP METHOD Billing Only	TYPE ZIRE	BY JTOMY	TAX CD	SALES REPRESENTATIVE

Name: Wayne Wilhelm Phone: 314-615-6833

Order reason: ECD return					
ITEM	PART NUMBER/DESCRIPTION	SCHEDULE DATE	UNIT PRICE	ORDERED QUANTITY	AMOUNT
1	391438500 NICKEL 63 ECD DISPOSAL CERTIFICATE. Commodity Code: 7508905000 Country of Origin: US SN: 4121	08/21/2009	0.00	1	0.00
2	391438500 NICKEL 63 ECD DISPOSAL CERTIFICATE Commodity Code: 7508905000 Country of Origin: US SN: 4122	08/21/2009	0.00	1	0.00
3	391438500 NICKEL 63 ECD DISPOSAL CERTIFICATE. Commodity Code: 7508905000 Country of Origin: US SN: 10171	08/21/2009	0.00	1	0.00
Sales Sub-Total					0.00
TOTAL AMOUNT					0.00

\*\*\* THIS RETURN MATERIAL AUTHORIZATION IS \*\*\*  
\*\*\* VALID FOR 90 DAYS FROM DATE OF ISSUE. \*\*\*

Remit To:  
VARIAN, INC.  
P.O. BOX 93752  
CHICAGO IL 60673  
Federal ID # 77-0501996

Bankers:  
ACH: Varian, Inc.  
C/O Bank of America ABA # 121-000-358  
Acct # 12331-17701

09M-7

## Environmental Health Laboratories

### Request for wipe test

#### Sample Information

Location: AEH Lab  
Instrument I.D.: A4121  
Type of Source: Si 63  
Date of Wipe Test: 8/13/09  
Analyst Performing Wipe Test: OH

#### Analytical Test Results

Date of Analysis: 8/17/09  
Analyst Performing Test: MM  
Instrument Utilized: Protec Data 3C  
Last Calibration Date: 5/21/09  
Minimum Detectable: 2.0 Gross Counts <sup>net</sup> <sub>8/17/09</sub>  $\mu$ Ci  
Test Results: < 0.005 <sup>net</sup> <sub>8/17/09</sub>  $\mu$ Ci

Note: 0.005 microcuries is the maximum allowable radiation.

Approved  
Jenifer West  
8/17/09

09M-B

## Environmental Health Laboratories

### Request for wipe test

#### Sample Information

Location: APIH Lab  
Instrument I.D.: A4122  
Type of Source: N. 63  
Date of Wipe Test: 8/13/09  
Analyst Performing Wipe Test: DH

#### Analytical Test Results

Date of Analysis: 8/17/09  
Analyst Performing Test: MM  
Instrument Utilized: Proton Data 3B  
Last Calibration Date: 5/21/09  
Minimum Detectable: 20 Gross Data PC  
Test Results: < 0.005  $\mu$ Ci

Note: 0.005 microcuries is the maximum allowable radiation.

Approved  
*Jennifer Weston*  
8/17/09

## Environmental Health Laboratories

### Request for wipe test

#### Sample Information

Location: API # Lab  
Instrument I.D.: A10171  
Type of Source: N: 63  
Date of Wipe Test: 8/13/09  
Analyst Performing Wipe Test: DH

#### Analytical Test Results

Date of Analysis: 8/12/09  
Analyst Performing Test: MM  
Instrument Utilized: Proton Beta 30  
Last Calibration Date: 5/21/09  
Minimum Detectable: 2.0 Gross Beta pc:  
Test Results: < 0.005 uCi

Note: 0.005 microcuries is the maximum allowable radiation.

Approved *Jennifer West*  
8/17/09



**Figure 14: Varian Certificate of Transfer,  
10/29/2009**

October 29, 2009

Varian Analytical Instruments  
2700 Mitchell Drive  
Walnut Creek, CA 94598-1675 USA

Phone: 925-939-2400  
Fax: 925-945-2335

www.varianinc.com



Wayne Wilhelm  
St Louis County Health Dept  
Environmental Health Labs  
111 South Meramec  
Clayton, MO 63105

**RADIOACTIVE MATERIALS  
CERTIFICATE OF TRANSFER**

The following device(s):

Varian Electron Capture Detector (ECD) with 15 millicuries Nickel-63,  
Model Number 02-001972-00

Quantity: 3  
Serial Number(s): A4121, A4122, & A10171

Were received by Varian, Inc. at 2700 Mitchell Drive in Walnut Creek, California.

Receipt date: August 27, 2009

The Varian Walnut Creek facility received the device(s) under the authority of Radioactive  
Material License Number 0256-07 issued by the California Department of Public Health –  
Radiologic Health Branch.

Please keep this document for your records. If you have any questions, please send an email  
to [RSO.USA@varianinc.com](mailto:RSO.USA@varianinc.com)

Dan Peixoto

Radiation Safety Officer

*Inspiring Excellence*

WORLD

32  
52  
RECIP: PEEL HERE  
fedex.com 1800.GoFedEx 1800.463.3339

**FedEx** *US Airbill*  
Express  
FedEx Tracking Number 8586 5596 7862

Align top of FedEx PowerShip Label here.

0215  
**Recipient's Copy**

**1 From This portion can be removed for Recipient's records.**

Date 4-26-60 FedEx Tracking Number 858655967862

Sender's Name ROBERT NICOLATTI, PHD Phone 314 615-6830

Company ST LOUIS COUNTY HEALTH DEPT

Address 111 S MERAMEC AVE  
Dept./Floor/Room

City CLAYTON State MO ZIP 63105

**2 Your Internal Billing Reference**

**3 To**

Recipient's Name MICHAEL G. HECK Phone REGION VIII

Company US NUCLEAR REGULATORY COMMISSION

Recipient's Address 2443 WALKERVILLE RD, STE 210  
Dept./Floor/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address LISIE  
To request a package be held at a specific FedEx location, print FedEx address here.

City LISIE State IL ZIP 60532-1B52

**4a Express Package Service**

FedEx Priority Overnight  
Next business morning. \*\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Standard Overnight  
Next business afternoon. \*\* Saturday Delivery NOT available.

FedEx 2Day  
Second business day. \*\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. \*\* FedEx Envelope rate not available. Minimum charge: One-pound rate.

FedEx Express Saver  
Third business day. \*\* Saturday Delivery NOT available.

**4b Express Freight Service**

FedEx 1Day Freight\*  
Next business day. \*\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx 2Day Freight  
Second business day. \*\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

**5 Packaging**

FedEx Envelope\*  FedEx Pak\*  FedEx Box  FedEx Tube  Other

**6 Special Handling**

SATURDAY Delivery  
Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 2Day Freight.

HOLD Weekday at FedEx Location  
Not available for FedEx First Overnight.

HOLD Saturday at FedEx Location  
Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods?  
One box must be checked.  
 No  Yes (See attached Shipper's Declaration)  Yes (Shipper's Declaration not required)  Dry Ice (Dry Ice, A, UN 1845)  Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

**7 Payment Bill to:**  Sender  Recipient  Third Party  Credit Card  Cash/Check

Sender Acct. No. in Section 7 will be billed.

Total Packages 1 Total Weight [REDACTED] Total Charges [REDACTED]

0345413301

**8 NEW Residential Delivery Signature Options** If you require a signature, check Direct or Indirect.

No Signature Required  
Package may be left without obtaining a signature for delivery.

Direct Signature  
Arrives at recipient's address may sign for delivery. Fee applies.

Indirect Signature  
If one is available at recipient's address, person at neighboring address may sign for delivery. Fee applies.

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Your liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.  
New Date 1/99-Part #19277-D186-305 FedEx-PRINTED IN U.S.A.-159

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