NRC FORM 464 Part I
(6-1998)

U.S. NUCLEAR REGULATORY COMMISSION

# RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

| FOIA/PA | RESPONSE NUMBER |
|---|---|
| 2000-0235 | 1 |

RESPONSE TYPE ☑ FINAL ☐ PARTIAL

REQUESTER: Michael D. Lindsey

DATE: JUN 14 2000

## PART I. -- INFORMATION RELEASED

- ☐ No additional agency records subject to the request have been located.
- ☐ Requested records are available through another public distribution program. See Comments section.
- ☐ APPENDICES: Agency records subject to the request that are identified in the listed appendices are already available for public inspection and copying at the NRC Public Document Room.
- ☑ APPENDICES: A, B — Agency records subject to the request that are identified in the listed appendices are being made available for public inspection and copying at the NRC Public Document Room.
- ☐ Enclosed is information on how you may obtain access to and the charges for copying records located at the NRC Public Document Room, 2120 L Street, NW, Washington, DC.
- ☑ APPENDICES: A, B — Agency records subject to the request are enclosed.
- ☐ Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- ☐ We are continuing to process your request.
- ☐ See Comments.

## PART I.A -- FEES

AMOUNT *: $ 143.45

* See comments for details

- ☑ You will be billed by NRC for the amount listed.
- ☐ You will receive a refund for the amount listed.
- ☐ None. Minimum fee threshold not met.
- ☐ Fees waived.

## PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- ☐ No agency records subject to the request have been located.
- ☑ Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.
- ☑ This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

## PART I.C COMMENTS (Use attached Comments continuation page if required)

**The actual for processing your request are as follows:**

| | |
|---|---|
| **Search:** | **$ 9.45** |
| **Review:** | **76.80** |
| **Duplication:** | **57.20** |
| **TOTAL:** | **$143.45** |

**You will be billed by the NRC Division of Accounting in the amount noted above**

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Carol Ann Reed *Carol Ann Reed*

NRC FORM 464 Part II (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

# RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

FOIA/PA 2000-0235

DATE JUN 14 2000

## PART II.A -- APPLICABLE EXEMPTIONS

APPENDICES B

Records subject to the request that are described in the enclosed Appendices are being withheld in their entirety or in part under the Exemption No.(s) of the PA and/or the FOIA as indicated below (5 U.S.C. 552a and/or 5 U.S.C. 552(b)).

- [ ] Exemption 1: The withheld information is properly classified pursuant to Executive Order 12958.
- [ ] Exemption 2: The withheld information relates solely to the internal personnel rules and procedures of NRC.
- [ ] Exemption 3: The withheld information is specifically exempted from public disclosure by statute indicated.
  - [ ] Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
  - [ ] Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
  - [ ] 41 U.S.C., Section 253(b), subsection (m)(1), prohibits the disclosure of contractor proposals in the possession and control of an executive agency to any person under section 552 of Title 5, U.S.C. (the FOIA), except when incorporated into the contract between the agency and the submitter of the proposal.
- [ ] Exemption 4: The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated.
  - [ ] The information is considered to be confidential business (proprietary) information.
  - [ ] The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.790(d)(1).
  - [ ] The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.790(d)(2).
- [ ] Exemption 5: The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Applicable privileges:
  - [ ] Deliberative process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
  - [ ] Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation)
  - [ ] Attorney-client privilege. (Confidential communications between an attorney and his/her client)
- [x] Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- [ ] Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
  - [ ] (A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrongdoing or a violation of NRC requirements from investigators).
  - [ ] (C) Disclosure would constitute an unwarranted invasion of personal privacy.
  - [ ] (D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
  - [ ] (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.
  - [ ] (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- [ ] OTHER (Specify)

## PART II.B -- DENYING OFFICIALS

Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).

| DENYING OFFICIAL | TITLE/OFFICE | RECORDS DENIED | APPELLATE OFFICIAL | | |
|---|---|---|---|---|---|
| | | | EDO | SECY | IG |
| James E. Dyer | Regional Administrator, Region III | Appendix B | ✓ | | |
| | | | | | |
| | | | | | |
| | | | | | |

Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."

Re: FOIA-00-0235

**APPENDIX A**
**RECORDS BEING RELEASED IN THEIR ENTIRETY**
**(If copyrighted identify with *)**

| NO. | DATE | DESCRIPTION/(PAGE COUNT) |
|---|---|---|
| 1. | Undated | Notes from On-Site regarding disposal of sources (4 pages) |
| 2. | Undated | By-product verification form (1 page) |
| 3. | Undated | Leak test certificate and instructions (5 pages) |
| 4. | Undated | Instrument room layout (1 page) |
| 5. | Undated | Map and directions to new location (1 page) |
| 6. | 01/29/85 | License fee sheet (1 page) |
| 7. | 02/05/85 | Application for license (2 pages) |
| 8. | 03/15/85 | Transmittal letter from NRC and NRC license (4 pages) |
| 9. | 09/16/87 | Safety inspection report (12 pages) |
| 10. | 08/31/89 | Amendment to license (3 pages) |
| 11. | 08/31/89 | Fee sheet (1 page) |
| 12. | 01/27/90 | Signed amendment (1 page) |
| 13. | 02/19/90 | Letter from On-Site to NRC for renewal of license (17 pages) |
| 14. | 03/14/90 | Letter from NRC acknowledging receipt of renewal (1 page) |
| 15. | 04/20/90 | Letter from NRC requesting additional information (4 pages) |
| 16. | 05/11/90 | NRC Form 313 (application) and attachment (8 pages) |
| 17. | 05/18/90 | NRC transmittal letter and amendment no. 2 (5 pages) |
| 18. | 05/19/90 | Response letter to NRC (2 pages) |
| 19. | 02/14/92 | "Registry of Radioactive Sealed Sources & Devices" (5 pages) |
| 20. | 04/27/92 | Fee letter from NRC Headquarters (1 page) |

| | | |
|---|---|---|
| 21. | 05/20/92 | Letter from On-Site to NRC regarding Hewlett Packard sources (1 page) |
| 22. | 05/20/92 | Notes and letters between On-Site and NRC regarding sources and devices (8 pages) |
| 23. | 05/20/92 | Checklist for Decommissioning Financial Assurance (2 pages) |
| 24. | 05/27/92 | Amendment No. 3 (3 pages) |
| 25. | 06/19/92 | Memos between NRC and On-Site regarding amendment to license (3 pages) |
| 26. | 06/19/92 | Fee sheet (1 page) |
| 27. | 08/18/92 | Conversation record (1 page) |
| 28. | 10/01/92 | Voided application (1 page) |
| 29. | 10/02/92 | Letter from NRC notifying On-Site of voided application (4 pages) |
| 30. | 12/15/93 | Fee letter (1 page) |
| 31. | 01/03/94 | Fee transmittal (1 page) |
| 32. | 01/28/94 | Amendment No. 4 (3 pages) |
| 33. | 01/05/95 | Conversation record (2 pages) |
| 34. | 01/06/95 | LTS worksheet (1 page) |
| 35. | 01/25/95 | Source inventory (3 page) |
| 36. | 03/14/95 | Licensing action (1 page) |
| 37. | 03/22/95 | Transmittal letter from NRC with amendment #5 and attachments (15 pages) |
| 38. | 06/ /95 | Source inventory (2 pages) |
| 39. | 07/06/95 | Fee sheet (1 page) |
| 40. | 08/03/95 | Inspection report (14 pages) |
| 41. | 05/07/96 | Letter from NRC to On-Site regarding extension of license (1 page) |
| 42. | 05/24/96 | Voided application (6 pages) |
| 43. | 08/26/98 | Application for amendment (1 page) |

| | | |
|---|---|---|
| 44. | 08/26/98 | Application for amendment and check copy (3 pages) |
| 45. | 08/23/98 | Letter from On-Site to NRC regarding RSO change (2 pages) |
| 46. | 08/31/98 | Letter from On-Site regarding amendment (8 pages) |
| 47. | 09/02/98 | Correspondence clarification sheet (1 page) |
| 48. | 09/03/98 | Acknowledgment of correspondence (1 page) |
| 49. | 09/08/98 | Fee sheet (1 page) |
| 50. | 11/24/98 | FAX from NRC to On-Site requesting additional information (6 pages) |
| 51. | 12/02/98 | Void sheet (1 page) |
| 52. | 01/30/99 | Amendment application from On-Site (36 pages) |
| 53. | 02/05/99 | Letter from On-Site to NRC (1 page) |
| 54. | 02/16/99 | License fee requirements and check copy (2 pages) |
| 55. | 02/21/99 | Radioactive License Verification Form (2 pages) |
| 56. | 02/22/99 | Fee sheet (1 page) |
| 57. | 03/04/99 | License verification form (2 pages) |
| 58. | 03/11/99 | Letter and amendment no. 5 (5 pages) |
| 59. | 03/31/99 | License verification form (2 pages) |
| 60. | 04/09/99 | Letter regarding termination of license (2 pages) |
| 61. | 04/20/99 | Shipper's certificate (3 pages) |
| 62. | 04/21/99 | License verification form (5 pages) |
| 63. | 04/24/99 | Certificate of Leak Test (3 pages) |
| 64. | 04/24/99 | Certificate of Disposition of materials (1 page) |
| 65. | 04/26/99 | Memo acknowledging receipt of electron capture detector (1 page) |
| 66. | 04/23/99 | Record of radioactive source transfer (1 page) |
| 67. | 04/28/99 | Fee sheet (1 page) |

| | | |
|---|---|---|
| 68. | 04/30/99 | Source inventory (1 page) |
| 69. | 05/03/99 | Note from On-Site to Hewlett-Packard regarding disposal of cell (1 page) |
| 70. | 05/07/99 | Acknowledgment of receipt of electron capture detector (1 page) |
| 71. | 05/13/99 | Voided application (22 pages) |
| 72. | 07/06/99 | Note from On-Site requesting immediate termination (1 page) |
| 73. | 07/19/99 | Fee sheet (1 page) |
| 74. | 07/20/99 | Checklist (2 pages) |
| 75. | 07/21/99 | Letter from NRC transmitting termination (2 pages) |

Re: FOIA-00-0235

## APPENDIX B
## RECORDS BEING WITHHELD IN PART

| NO. | DATE | DESCRIPTION/(PAGE COUNT)/EXEMPTIONS |
|---|---|---|
| 1. | 01/31/94 | Letter from Peter Lee, NRC, to David Cheetham, On-Site Instruments, Inc., transmitting license amendment No. 4. (9 pages) (Ex. 6) |

ON-SITE
INSTRUMENTS
Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL

C-7

Ronda,

Enclosed are seven ECD cells model #G1224A with serial numbers F1125; L5968; F4454; L6520; K0054; F3785 and K4370. The ECD's are currently covered under On-Sites specific license agreement, license number 34-24437-01. On-Site Instruments would like to return all the cells to be disposed of. Also enclosed is a copy of On-Site Instruments specific license, seven copies of the by-products materials license verification form filled out for each ECD serial number, and the current wipe tests for the ECD's. If you have any questions please give Ronda Pane a call at 302-633-8552.

Thank you,

Mitch Baker

COPY

A/1

ON-SITE
INSTRUMENTS
Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL

COPY

Ronda,

Enclosed is ECD cell model #G1224A with S/N: F3448. The ECD is currently covered under On-Sites specific license agreement. On-Site Instruments would like to return the cell and replace it with a Generally Licensed cell Part number 19233-69576. Please return the cell to the following location:

Pittsfield Waste Water Treatment Plant / Roy F. Weston
901 Holmes Road
Pittsfield, MA 01201
Attn: Lab
Phone: 781-229-9430

Also enclosed is a copy of On-Site Instruments specific license, all forms from appendix E filled out by the end user which includes, the ECD exchange form, by-product materials license verification form, and the current wipe test for the ECD. Please send the exchanged cell overnight via FedEx and bill On-Site for the shipping costs. If you have any questions please give Ronda Pane a call at 302-633-8552.

Thank you.

Mitch Baker

ON-SITE
INSTRUMENTS
[illegible] Drive
Lewis Center, Ohio [illegible]
[illegible]
[illegible]
[illegible]
EnviroRENTAL

Ronda,

Enclosed is ECD cell model #G1224A with S/N: F7996. The ECD is currently covered under On-Sites specific license agreement. On-Site Instruments would like to have the cell refurbished, and a replacement cell sent back to On-site Instruments. Please bill and return the cell to the following location:

On-Site Instruments
404 Enterprise Dr.
Lewis Center, OH 43035
Attn: Mitch Baker
Phone: 614-846-3022

Also enclosed is a copy of On-Site Instruments specific license, all forms from appendix E which include, the ECD exchange form, by-product materials [illegible] and a current wipe test for the ECD. Please send the refurbished cell overnight via FedE[illegible] and bill On-Site for the shipping costs.

COPY

Thank you,

Mitch Baker

ON-SITE INSTRUMENTS
404 Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL

Dear ECD Lab .

Enclosed are three Varian sources serial numbers A9202; A9203 and A7461 for disposal. Please use P.O. #18004 for all disposal costs involved. Also enclosed are copies of our most recent wipe tests. If you have any further questions please contact me.

Thank you,

Mitch Baker

COPY

COPY



## By-product Materials (Radioactive) License Verification Form

This form is to be used for the exchange of Specific License Electron Capture Detectors, General License Electron Capture Detectors, and Conversion Kits for use within the United States of America only. Read and complete both the front and back sides of this form.

Company Name Roy F. Weston, Inc.

Address 217 Middlesex Turnpike, Burlington, MA 01803

Telephone Number 781-229-6430 x242

End User's Name Paul Callahan

Customer Purchase Order Number N/A

Hewlett-Packard Sales Order Number N/A
(Contract Customers ONLY)

Tax Status ☐ Taxable ☐ Exempt

**When returning an ECD for exchange:**

1. Determine the exchange part number.
2. Place a call to Hewlett-Packard Technical Support at 1-800-424-9759.
   - Current prices will be available.
   - Have your own purchase order number available.
   - If your instrument is under a Hewlett-Packard service contract or warranty, have your instrument serial number available.
   - If you own a specific license ECD, a copy of the current license will be requested.
3. Consult your Radiation Safety Officer and the Code of Federal Regulations, Titles 10 and 49 (Sections 173.42, 173.421 1, and 173.421) and local and state regulations for packaging.



A/2

# On-Site Instruments

689 North James Road
Columbus, Ohio 43219-1837
1 (800) 766-7483

Date :_____
Report sent to :

Exhibit C Leak test certificate

## Leak test certificate

Number of samples :____ Test method: Dry wipe
Radionuclide as identified by customer is Nickel-63
Analysed for beta contamination using liquid scintillation counting
Samples taken by: customer Analysed by: _____

| Device ID | Sample ID | microcuries/sample | pass/fail |
|---|---|---|---|

Next scheduled test is on __/__/__
Limit is 0.005 microcuries per device
Tested under USNRC license #34-244437-01

Signed by _____

A13

# On-Site Instruments

## NICKEL 63 ELECTRON CAPTURE DETECTOR (RADIOACTIVE LEAK) WIPE TEST KIT INSTRUCTIONS

### A. General

In the United States, the N.R.C. (or State agency in :Agreement States") requires Nickel-63 Electron Capture Detectors to be tested for radioactive leakage and/or contamination at intervals not to exceed six (6) months. It is essential that this test be performed in order to assure regulatory compliance. The user's first leak test should be performed no later than six months from the date on the wipe test certificate which accompanies the detector. This test certificate and all subsequent leak test records must be retained as evidence of regulatory compliance.

Warning: Nickel-63 is a beta emitter with an energy maximum of 0.067 MeV. (It is generally considered that greater than 0.070 MeV is required to penetrate the protective layer of skin). However, Nickel-63 may be injurious if ingested even in microgram quantities, and adequate measures to prevent ingestion must be taken, including the use of disposable plastic gloves, good laboratory practice, and personal hygiene (cleanliness).

### B. On-Site Instruments Leak Test Kit

Contains the following:

| Item | Description | Qty. |
|---|---|---|
| 1 | wipe test specimen information card | 12 |
| 2 | filter paper #41 | 12 |
| 3 | plastic bags 4" x 8" | 12 |
| 4 | envelopes OSI | 4 |
| 5 | instruction sheet | 1 |

### C. Performing the leak test

The test should be performed as follows:

1. Select three information cards (Item 1) and fill out completely.

2. Select three pieces of filter paper (Item 2) and label them with a pencil as follows:

Sample 1-Det. Ent. Fitting
Sample 2-Det. Housing
Sample 3-Det. Exit

3. Put on disposable gloves

4 Disconnect the column from the electron capture cell.

5 Wipe the inside and outside of the detector entrance fitting (including the column and adapter connections) with a piece of filter paper labelled "Det. Ent. Fitting, Sample 1". To wipe the inside of the entrance fitting, loosely roll the filter paper and wipe the inside of the fitting with a swirling motion . The filter paper can be rolled and a stick such as on a cotton swab can also be used. Immediately insert the wipe sample into one of the plastic bags (Item 3) along with a filled out information card (Item 1).

6. Wipe the detector housing (outside case) with the filter paper labeled "Det. Housing, Sample 2, and insert it and the filled out information card into a second plastic bag.

7. Disconnect the Tygon exit tube (tube where vent line is attached) from the connector. Wipe the inside of the metal detector exit tube and/or the inside of the vent line with the filter paper labelled "Det. Exit-Sample 3", and insert it and a filled out information card into a third plastic bag.

8. The ECD wipe samples collected must be tested by an NRC or Agreement State authorized company offering this service, such as On-Site Instruments

9. Place the three plastic bags into an envelope and send it to:

On-Site Instruments
Leak Test Department
689 North James Road
Columbus, Ohio 43219-1837

If you are a rental customer of On-Site Instruments, the test service is provided at no charge. Otherwise, it is best to include a purchase order or payment directly with your samples, to cover the costs of the tests.

10. Sufficient material is supplied in each kit to perform four wipe tests. Extra leak test kits can be purchase from On-Site Instruments.

## Wipe Test Specimen

This bag contains a wipe test specimen from the area indicated of an $^{63}Ni$ electron capture detector for counting

Manufacturer and Model # _____

Cell Ser. # _____

Total activity of cell _____mCi

Date surveyed _____

Return test results with this card attached to :

Attention of _____

Company Name _____

Address _____

City _____

State _____Zip_____

telephone # (  ) _____

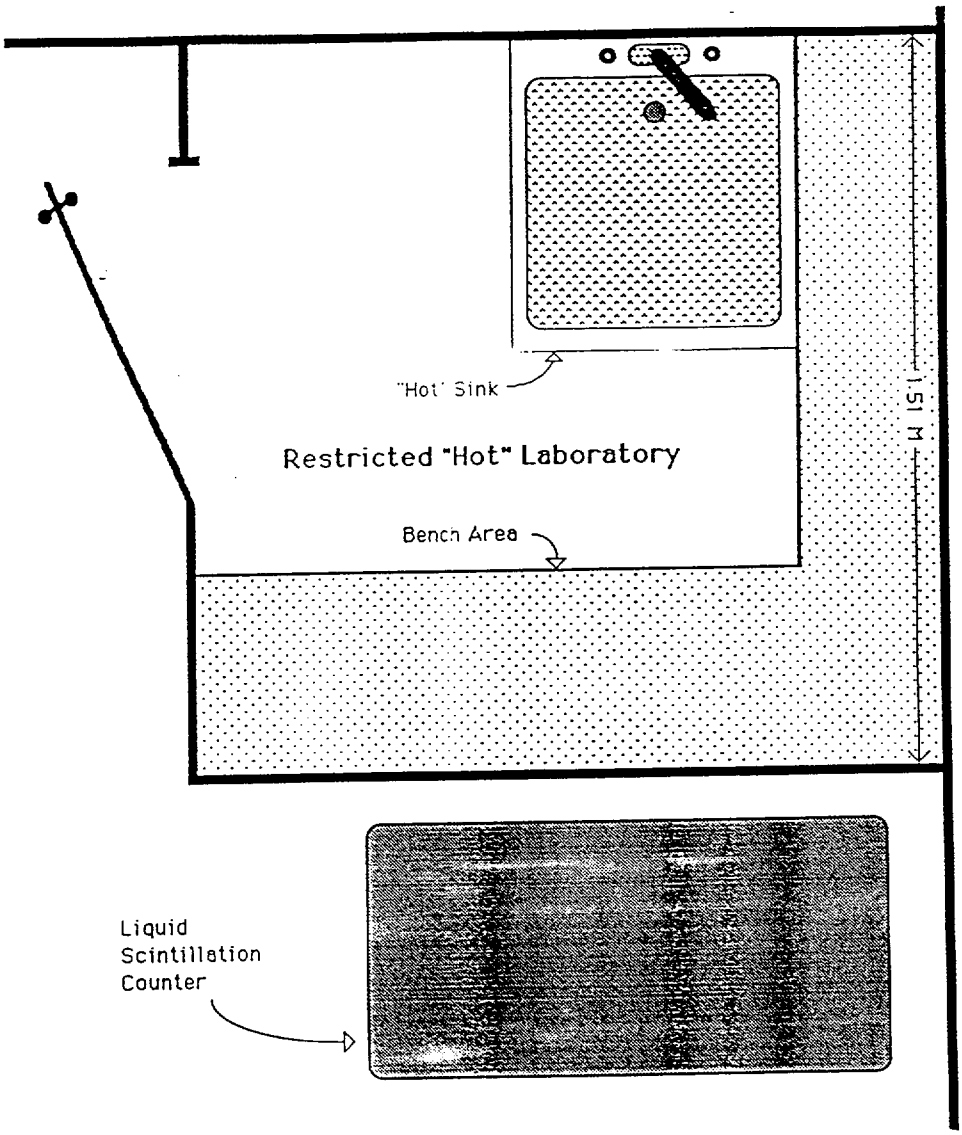
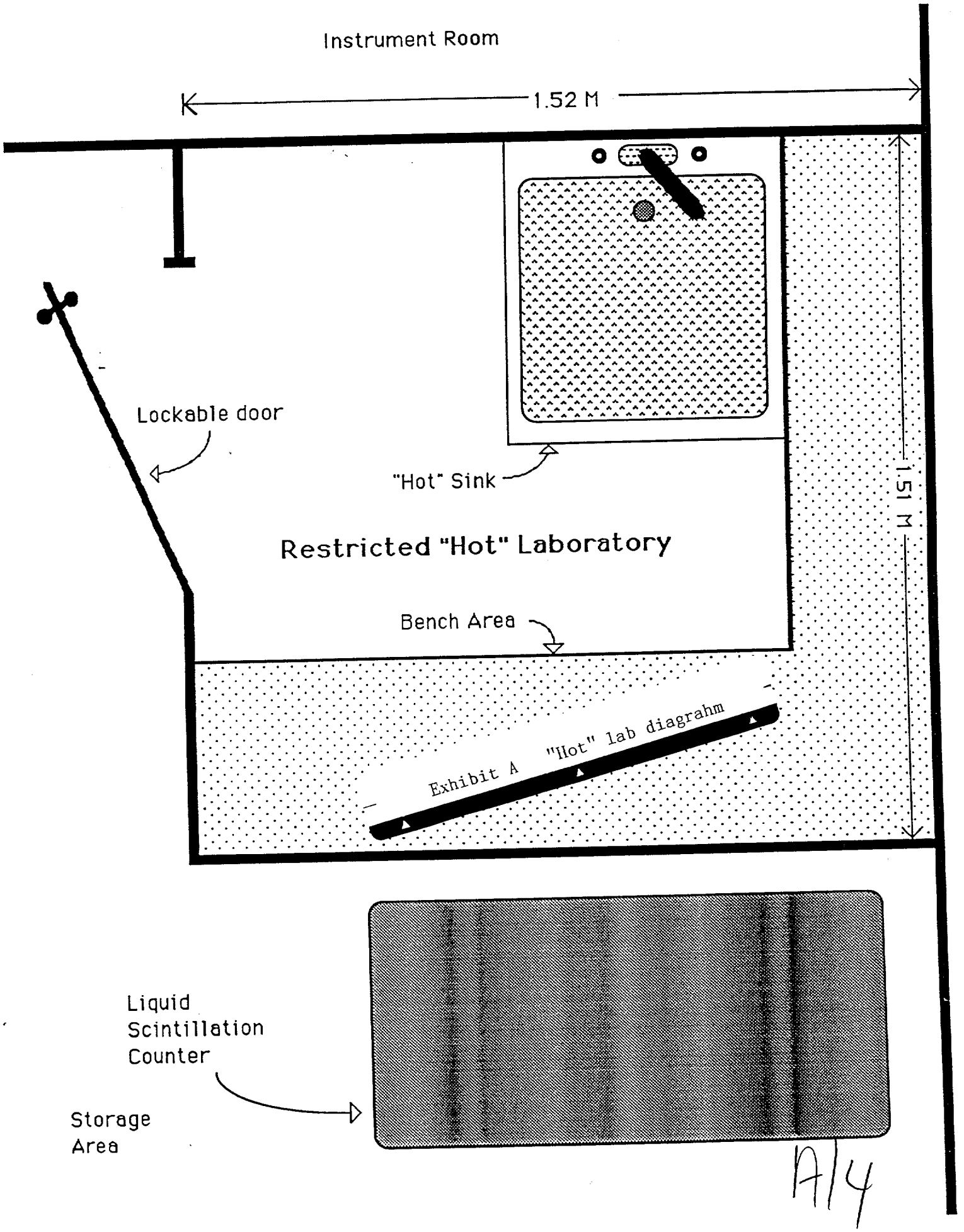



Exhibit E Wipe test results

On-Site Instruments Laboratory wipe survey results Date:_____

| # | CPM | DPM | # | CPM | DPM |
|---|---|---|---|---|---|
| B | _____ | _____ | 5 | _____ | _____ |
| 1 | _____ | _____ | 6 | _____ | _____ |
| 2 | _____ | _____ | 7 | _____ | _____ |
| 3 | _____ | _____ | 8 | _____ | _____ |
| 4 | _____ | _____ | 9 | _____ | _____ |

If contamination is greater than 100DPM/100 $cm^2$, decontaminate and resurvey


Instrument Room
1.52 M
Lockable door
"Hot" Sink
Restricted "Hot" Laboratory
1.51 M
Bench Area
Exhibit A "Hot" lab diagrahm
Liquid
Scintillation
Counter
Storage
Area

A/4

34-2443-01

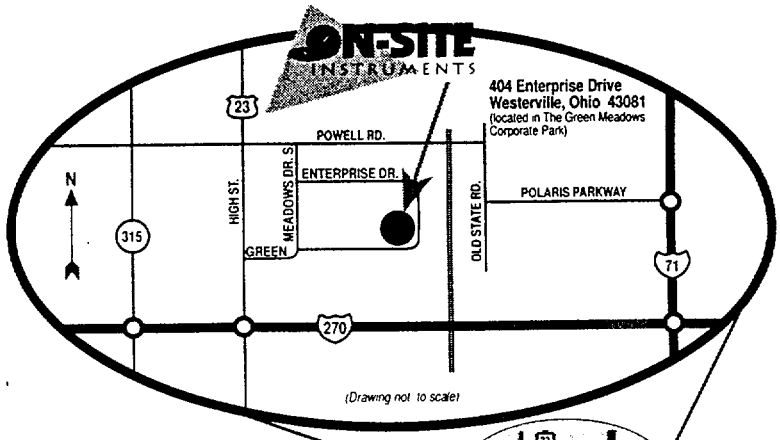
# THIS IS OUR NEW HOME!

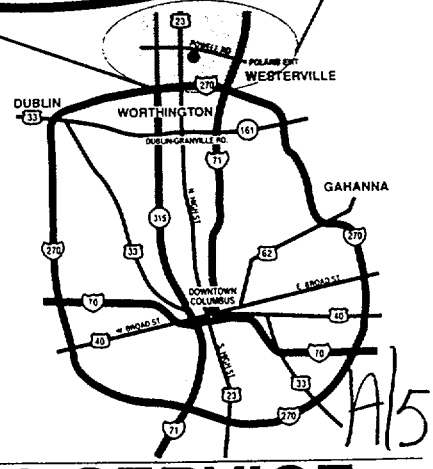
In order to better serve you, On-Site Instruments has moved into the ***world's largest*** instrument rental center. It's conveniently located in the Green Meadows Corporate Park, just north of Worthington, off Powell Road, at 404 Enterprise Drive. Our new local phone number is **614-846-3022**. The new FAX number is **614-844-3994**. Our toll-free number is ***still*** **1-800-766-7483**.

Our new rental center is more fully-equipped and stocked to supply all of your instrument requirements, and will soon include an inside display of our Mobile Analytical Laboratories.

So stop in and see our new home - it's so much bigger and better than before!

ON-SITE INSTRUMENTS




## 404 Enterprise Drive
## Westerville, Ohio 43081

## 614-846-3022
## FAX 614-844-3994
## Toll-free 1-800-766-7483

A15

# INSTRUMENT RENTAL, SALES & SERVICE

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

BETWEEN: William O. Miller, Chief
License Fee Management Branch
Office of Administration

Regional License Section
Material Licensing Branch
FCMS, Office of Nuclear Material
Safety & Safeguards

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: Quinram Enterprises DBA On-Site Instruments

Application Dated: 1-15-85

Control No.: CONTROL NO. 78153

License No.: 34-24437-01

2. FEE ATTACHED

Amount: 230.00

Check No.: 2401

3. COMMENTS

Signed Vachulon

Date 1/29/85

B. LICENSE FEE MANAGEMENT BRANCH

1. Fee Category and Amount: 3P $230

2. Correct Fee Paid. Application may be processed for:

Amendment _____

Renewal ✓

License _____

A/6

Signed [illegible]

Date 2/5/85

NRC FORM 313
(1-84)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires: 5-31-87

# APPLICATION FOR MATERIAL LICENSE

**INSTRUCTIONS:** SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

**FEDERAL AGENCIES FILE APPLICATIONS WITH:**

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:**

**CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIAL SECTION B
631 PARK AVENUE
KING OF PRUSSIA, PA 19406

**ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
MATERIAL RADIATION PROTECTION SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

**IF YOU ARE LOCATED IN:**

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

**ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

**ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
MATERIAL RADIATION PROTECTION SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

**PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.**

**1. THIS IS AN APPLICATION FOR** *(Check appropriate item)*

- [X] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [ ] C. RENEWAL OF LICENSE NUMBER _____

**2. NAME AND MAILING ADDRESS OF APPLICANT** *(Include Zip Code)*

Qumran Enterprises Inc., dba
On-Site Instruments
542 South Drexel Avenue
Columbus, Ohio 43209

**3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.**

Qumran Enterprises Inc., dba On-Site Instruments
542 South Drexel Avenue
Columbus, Ohio 43209

**4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION**: Larry R. Cheetham

**TELEPHONE NUMBER**: 614-237-3022

**SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.**

**5. RADIOACTIVE MATERIAL**
a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

**6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.**

**7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.**

**8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.**

**9. FACILITIES AND EQUIPMENT.**

**10. RADIATION SAFETY PROGRAM.**

**11. WASTE MANAGEMENT.**

**12. LICENSEE FEES** *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY 49FR21293J
AMOUNT ENCLOSED $230.00

**13. CERTIFICATION.** *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

| SIGNATURE—CERTIFYING OFFICER | TYPED/PRINTED NAME | TITLE | DATE |
|---|---|---|---|
| | Larry R. Cheetham | President | 1/15/85 |

**14. VOLUNTARY ECONOMIC DATA**

a. ANNUAL RECEIPTS
- [ ] <$250K
- [ ] $250K–500K
- [ ] $500K–750K
- [X] $750K–1M
- [ ] $1M–3.5M
- [ ] $3.5M–7M
- [ ] $7M–10M
- [ ] >$10M

b. NUMBER OF EMPLOYEES *(Total for entire facility excluding outside contractors)*: Four

c. NUMBER OF BEDS: Not Applicable

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION *(Dollar and/or staff hours)* ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? *(NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)*
- [ ] YES
- [X] NO

A/7

**FOR NRC USE ONLY**

| TYPE OF FEE | FEE LOG | FEE CATEGORY | COMMENTS | APPROVED BY |
|---|---|---|---|---|
| appl | 3P | Feb 2-14 | CONTROL NO. 78153 | |
| **AMOUNT RECEIVED** | **CHECK NUMBER** | | | **DATE** |
| $230 | 2401 | | | 2/5/85 |

PRIVACY ACT STATEMENT ON THE REVERSE

8503290232 850313
PDR
REG3 LIC30
34-24437-01

APPLICATION FOR MATERIAL LICENSE: ITEMS 5 THROUGH 11

APPLICANT: Qumran Enterprises Inc., dba On-Site Instruments
542 South Drexel Avenue
Columbus, Ohio 43209

(5.) Radioactive Material:
a.) element and mass number: Hydrogen 3
b.) chemical and/or physical form: Titanium tritride
c.) name of manufacturer and model number: Varian Instrument Group #02-000966-00
d.) maximum number of millicuries/or sealed sources and maximum activity per source which will be possessed at one time: Not to exceed 250 millicuries per source
* For use in Varian 1860 gas chromatograph for sample analysis

(6.) For use in Varian 1860 gas chromatograph for sample analysis

(7.) Individual responsible for radiation safety program and training and experience: Larry R. Cheetham

(8.) Training for individuals working in or frequenting restricted areas delivered from experienced user

(9.) Facilities and equipment: This is a permanent installation and therefore the source will remain within the instrument. The area is restricted and secure. The source will be cleaned and replaced by the manufacturer.

(10.) Radiation safety program:
a.) H-3 cells are not required to be leak tested
b.) Detector will be returned to manufacturer for cleaning and servicing
c.) The detector is vented via 1/4" teflon tubing to the exterior of the building
d.) Because of the limited nature of gas chromatography analyzer licenses, the applicant does not need to establish a comprehensive radiation safety program.

(11.) Return to manufacturer

CONTROL NO. 78153

MAR 15 1985

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Qumran Enterprises, Inc.
On-Site Instruments
ATTN: Larry R. Cheetham
President
542 South Drexel Avenue
Columbus, OH 43209

Gentlemen:

Enclosed is your NRC Gas Chromatograph License Number 34-24437-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. You must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Possess radioactive material only in the quantity and form indicated in your license.

3. Use radioactive material only for the purpose(s) indicated in your license.

4. Notify NRC in writing of any change in mailing address.

5. Request and obtain appropriate amendment if you plan to change ownership of your organization, change locations of radioactive material, or make any other changes in your facility or program which are contrary to your license conditions or representations made in your license application and any supplemental correspondence with NRC. Any amendment request should be accompanied by the appropriate fee specified in 10 CFR Part 170.

6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

7. Request termination of your license if you plan to permanently discontinue activities involving radioactive material prior to your expiration date.

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REG3 LIC30
34-24437-01 PDR

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34-28575

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions and representations in your license application will result in enforcement action against you in accordance with the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

If you have any questions or require clarification of any of the above stated information, contact us at (312) 790-5625.

Sincerely,

Original Signed By
George M. McCann
Materials Licensing Section

Enclosure(s):
1. License No. 34-24437-01
2. 10 CFR Part 2, Appendix C
3. NRC-3

RIII

McCann/cm
03/05/85

NRC Form 374
(5-84)

U.S. NUCLEAR REGULATORY COMMISSION



# MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 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.

K-7 3123

| Licensee | |
|---|---|
| 1. Qumran Enterprises, Inc.<br>On-Site Instruments | 3. License number 34-24437-01 |
| 2. 542 South Drexel Avenue<br>Columbus, OH 43209 | 4. Expiration date March 31, 1990 |
| | 5. Docket or Reference No. 030-28575 |

| 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. Hydrogen-3 | A. Foil source (Varian Electron Detector Cell Model No. 02-000966-00) | A. No single cell to exceed 250 millicuries each |

9. Authorized Use

A. To be used in a Varian gas chromatograph(s) for sample analysis.

CONDITIONS

10. Licensed material shall be used only at 542 South Drexel Avenue, Columbus, Ohio.

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 of, Larry R. Cheetham.

13. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), Title 10, Code of Federal Regulations, Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.

14. Detector cells containing licensed material shall not be opened or the foil sources removed from the detector cell by the licensee.

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REG3 LIC30

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PDR

MAR 15 1985

COPY 2

HL 30 P.V.

License number
34-24437-01

Docket or Reference number
030-28575

**MATERIALS LICENSE**
SUPPLEMENTARY SHEET

15. Maintenance, repair, cleaning, replacement and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.

16. Exhaust from detector cells containing licensed material shall be vented through a laboratory fume hood or other suitable means designed to reduce potential exposure to personnel to the lowest practicable level.

17. Except as otherwise specified in this license, the licensee shall have available and follow the instructions contained in the manufacturer's instruction manual for the chromatography device.

18. The licensee shall conduct a physical inventory every six (6) months to account for all foil sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of foil sources and the date of the inventory.

19. A. Detector cells containing titanium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 225 degrees Centigrade.

    B. Detector cells containing scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 325 degrees Centigrade.

20. The licensee shall dispose of sources by return to the manufacturer when their use has been discontinued.

21. 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 January 15, 1985. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements applications or letters, unless the statements are more restrictive than the regulations.

For the U.S. Nuclear Regulatory Commission

Original Signed
By George M. McCann
Materials Licensing Section, Region III

Date March 13, 1985

COPY

NRC
(12-81
10 CFR

NUCLEAR REGULATORY COMMISSION

# SAFETY INSPECTION

DMB COPY

| 1. LICENSEE | 2. REGIONAL OFFICE |
|---|---|
| Qumran Enterprises, Inc<br>542 South Drexel Ave<br>Columbus, Ohio 4320 | U.S. NUCLEAR REGULATORY COMMISSION<br>REGION<br>799 RO[illegible]LT ROAD<br>GLEN ELLYN, IL 60137 |

| 3. DOCKET NUMBER(S) | 4. LICENSE NUMBER(S) | 5. DATE OF INSPECTION |
|---|---|---|
| 030-28575 | 34-24437-01 | 9/16/87 |

Licensee:

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission's (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews, with personnel, and observations by the inspector. The findings as a result of this inspection are as follows:

[X] 1. Within the scope of this inspection, no violations were observed.

[ ] 2. The inspector also verified the steps you have taken to correct the violations identified during the last inspection. We have no further questions on those actions at this time.

[ ] 3. During this inspection certain of your activities, as checked below, were in violation of NRC requirements.
**THIS IS A NOTICE OF VIOLATION** which is required to be posted in accordance with 10 CFR 19.11.

[ ] A. _____ was not properly posted to indicate the preser
of a _____. 10 CFR 20.203(b), (c), (d), (e) or 34.

[ ] B. Containers located in _____ were not prope
labeled to indicate the presence of radioactive material. 10 CFR 20.203(f)(1), or (f)(2).

[ ] C. _____ of sealed sources were not performed at the prc
frequencies. 10 CFR _____ License Condition Number _____

[ ] D. Records of _____ were not properly maintai
10 CFR _____ or License Condition Number _____

[ ] E. Documents were not properly posted or otherwise made available. 10 CFR 19.11.

[ ] F. Reports or notifications of _____ were not made in accorda
with 10 CFR _____ or License Condition Number _____

[ ] H. _____

[ ] I. _____

[ ] J. _____

[ ] K. _____

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REG3 LIC30
34-24437-01 PDR

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I hereby state that within 30 days the actions described by me to the Inspector will be taken to correct the violations identified in the items checked abov
This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201. No further response will be submitted unless required
the NRC.

| SIGNATURE – LICENSEE | DATE | SIGNATURE – NRC INSPECTOR | DATE |
|---|---|---|---|
| | | Evelyn R Wharton | 9/16/8 |

IE07

INDUSTRIAL - ACADEMIC INSPECTION REPORT

Inspection Report No. 87001

License No. 34-24437-01

Licensee (name and address)

Docket No. 030-28575

Quimran Enterprises, Inc.
542 South Drexel Ave
Columbus, Ohio 43209

Licensee Contact Larry Cheetham

Telephone No. 614-237-302

Last Amendment No. 00

Date of Amendment 3/13/85

✓ Priority 7

Category K

✓ Program Code 3123

Date of Inspection 9/16/87

Type of Inspection: ( ) Announced ( ✓ ) Unannounced ( ) Normal
( ) Initial ( ) Special ( ) Reinspection

Next Inspection Date ★★★★

(✓) Normal ( ) Reduced ( ) Extended

Summary of Findings and Action:

(✓) No Violation, Clear 591 issued
( ) Violation(s), 591 issued
( ) Violation(s), Appendix
( ) Action on Previous Violation
( ) Regional Action
( ) Headquarters Action

★ send G-C Eg. Guide to Larry has 1981 guide
★ sent 1/15/85 application
Varian — Terry VanOestenberghe
415-945-2133

Inspector: Evelyn R Matson (Signature) 9/21/87 (Date Signed)

Approved: [illegible] (Signature) 9/22/87 (Date Signed)

1. INSPECTION HISTORY

a. Items of noncompliance or safety items noted during last inspection conducted on N/A Yes___ No___

Corrected by letted dated _____

b. Requirement Corrected Not Corrected

c. If any items of noncompliance or safety items noted during the last inspection were not corrected, explain: _____

2. Organization

a. Organizational structure as described in application or letter Dated _____, Or _____

b. List primary licensee contact: _____ Telephone No. _____

c. Comments:

✓ Larry Cheatham - President.

3. SUMMARY OF LICENSED PROGRAM (Kind of program, number of people, rate of use or quantities on hand, places and frequency of use, type, quantity and use as authorized).

✓ H-3 G.C.
one H-3 cell 250 millicurie
in storage has not been used

4. INTERNAL AUDITS OR INSPECTIONS

a. Required by L/C or application: Yes _____ No ✓ If "Yes":
   1) By whom _____
   2) Frequency _____ Announced: _____ Unannounced: _____
   3) Scope _____
   4) Records maintained: Yes _____ No _____
   5) Records reviewed: Yes _____ No _____
   6) Period Reviewed: _____

b. Comments (responsibility of auditor or committee, management control):

5. TRAINING, RETRAINING, AND INSTRUCTIONS TO WORKERS

a. Training program specified in L/C or application: Yes _____ No ✓

b. If training program is required, describe scope of program: _____

c. Retraining required: Yes _____ No ✓
   If "Yes" is retraining: Complete _____ Incomplete _____
   1) Are tests and/or examinations required: Yes _____ No _____
   2) If "Yes" are records available: Yes _____ No _____
   3) Reviewed test results: Yes _____ No _____
   4) Period reviewed: _____
   5) Comments (per cent completed, test results, etc.): _____

d. Training provided, but not covered above: _____

e. Instructions to workers in accord with 10 CFR 19.12: Yes _____ No _____

6. RADIOLOGICAL PROTECTION PROCEDURES

a. Operating and Emergency Procedures
   1) Required by L/C or application: Yes ✓ No_____
   2) Provided, but not required by L/C or application: Yes____ No____
   3) Procedures reviewed: Yes_____ No_____
   4) Appeared adequate: Yes_____ No_____
   5) Comments (personnel's understanding of procedures):_____
   Follow instruction manual
   ✓ manual available

b. Changes in procedures since last inspection: Yes_____ No_____
   1) Were changes authorized: Yes_____ No_____
   2) Comments:_____

7. INSTRUMENTATION

a. Type(s) of radiation survey instruments on hand as per L/C, application or equivalent: Yes_____ No_____
   1) If "No" list changes:_____

b. Capability of radiation survey instruments adequate for program: Yes_____ No_____

c. Calibration of instruments required: Yes_____ No_____

d. If "Yes", instruments calibrated in accord with requirements:

   Yes_____ No_____

e. Comments:_____

8. MATERIALS

a. Radioactive material secured to prevent unauthorized removal from:
   1) Restricted area: Yes ✓ No_____
   2) Unrestricted area (20.207): Yes_____

b. Method of control appear adequate: Yes_____ No_____

✓ c. Comments: locked with unattended

9. FACILITIES

a. Facilities described in letter or appplication: Yes_____ No ✓

b. Facilities inspected: Yes_____ No_____

c. Comments:

10. POSTING AND LABELING

a. Posting and labeling in accord with 10 CFR 20.203: Yes ✓ No_____

✓ b. Comments: well in plastic box labelled

11. RECEIPT AND TRANSFER OF MATERIAL

a. Procedures for picking up and receiving packages (10 CFR 20.205[b][c]) Yes_____ No_____
   1) Incoming shipments monitored: Yes_____ No_____
   2) Records of monitoring maintained (10 CFR 20.401[b]): Yes____ No____
   3) Records reviewed by NRC inspector: Yes_____ No_____
   4) Period reviewed:

b. Procedures for opening packages (10 CFR 20.205[d]): Yes_____ No_____

c. Comments:

d. Records of receipt and transfer of material available (30.51[a]; ~~40.61[a]; 70.51[b][1]~~): Yes_____ No_____
   1) If "Yes", review of records was made by inspector: Yes____ No____
   2) Period reviewed: ~~June 10/85~~
   3) Comments:_____

e. Packages on hand meet labeling requirements (49 CFR 173.399):
   Yes_____ No_____
   Comments:_____

f. Reports to commission required by L/C or regulation submitted:
   Yes_____ No_____
   Comments:_____

12. PERSONNEL RADIATION PROTECTION - EXTERNAL

a. Film or TLD badge supplier_____

b. Badge exchange frequency_____

c. Reports reviewed by_____

d. Records reviewed for period_____ to_____ by NRC inspector

e. NRC forms or equivalent
   1) NRC-4 (20.102[b]): Yes____ No____ Complete: Yes____ No____
   2) NRC-5 (20.401[a]): Yes____ No____ Complete: Yes____ No____
   Maximum whole body quarterly exposure:_____
   Maximum extremity quarterly exposure_____
   3) Comments:_____

f. Pocket dosimeters used: Yes_____ No_____
   1) Type used:_____
   2) Frequency of recharging:_____
   3) Frequency of reading:_____
   4) Comments:_____

g. Direct radiation surveys of restricted and/or unrestricted areas being made: Yes_____ No_____
   1) Records of surveys being maintained: Yes_____ No_____
   2) Records of surveys reviewed: Yes_____ No_____
   3) Period reviewed:_____
   4) Comments:_____

13. PERSONNEL RADIATION PROTECTION - INTERNAL

a. Potential for exposure of individuals to airborne radioactive material exists: Yes_____ No_____
   1) If "Yes" does program for monitoring and control exist: Yes_____ No_____
   2) Program for monitoring and control appears adequate: Yes_____ No_____

b. Comments:_____

c. Respiratory protection program required by L/C or application: Yes_____ No_____
   1) If "Yes" were respiratory protection procedures reviewed: Yes_____ No_____
   2) Respiratory protection procedures appear adequate: Yes_____ No_____
   3) Comments:_____

d. Bioassay program required: Yes_____ No_____
   1) If "Yes" was bioassay program reviewed: Yes_____ No_____
   2) Bioassay program appears adequate: Yes_____ No_____
   3) Comments:_____

e. Smears and air samples:
   1) Monitoring for airborne radioactivity is conducted (20.103): Yes_____ No_____
      a. Records of monitoring reviewed: Yes_____ No_____
      b. Period reviewed:_____
      c. Records of monitoring appears adequate: Yes_____ No_____
   2) Smear surveys being conducted (20.201.b): Yes_____ No_____
      a. Records of smear surveys reviewed: Yes_____ No_____
      b. Period reviewed:_____
      c. Records appeared adequate: Yes_____ No_____
   3) Comments:_____

14. LEAK TESTS

a. Leak tests required: Yes_____ No_____
b. If "Yes" leak tests conducted: Yes_____ No_____
c. Records of leak tests maintained: Yes_____ No_____
d. Leak tests records reviewed: Yes_____ No_____

e. Period reviewed: _____

f. Records of leak tests appear adequate: Yes_____ No_____

g. Comments: _____

15. RADIOACTIVE EFFLUENT CONTROL AND WASTE DISPOSAL

a. Byproduct material released to atmosphere and/or sewer (20.106 and 20.303):
Yes_____ No_____

b. Records of releases or radioactive effluents maintained (20.401):
Yes_____ No_____
1) Period reviewed: _____
2) Records appear adequate: Yes_____ No_____

c. Solid waste disposal method: _____
1) Records of disposal maintained (30.51): Yes_____ No_____
2) Surveys of waste prior to disposal made (20.201): Yes____ No____
3) Period reviewed: _____
4) Records of surveys appear adequate (20.401): Yes_____ No_____

d. Comments: not used, but stated device would be heated with Teflon line

| 16. TRANSPORTATION (10 CFR 71.5a and 49 CFR 171-178) | Yes | N/A | Vio |
|---|---|---|---|
| a. Licensee makes shipments of RAM? | ( ) | (✓) | ( ) |
| Such shipments are: | | | |
| ( ) delivered to common carriers? | | | |
| ( ) transported in licensee's own vehicle as private carrier? | | | |
| ( ) both? | | | |
| If above is yes, complete items below: | | | |
| b. Are authorized packages used? [173.415-416] | ( ) | ( ) | ( ) |
| Package types used: | | | |
| ( ) DOT-7A, Type A [173.415(a) performance test records on file? | ( ) | ( ) | ( ) |
| ( ) DOT-55 [173.416(a)] licensee aware of 6/30/85 cutoff on use? | ( ) | ( ) | ( ) |
| ( ) Excepted, Instruments/articles [173.421-424] | | | |
| ( ) LSA-strong tight [173.425(b)(1)] | | | |
| ( ) NRC-Certified ]173.416(b)] | | | |
| NRC COC's on file? [71.12(c)(1)] | ( ) | ( ) | ( ) |
| Registered with NRC as user? [71.12(c)(3) | ( ) | ( ) | ( ) |
| Documented NRC-Approved Q/A Program? [71.17(b)] | ( ) | ( ) | ( ) |
| NRC Q/A Approval No.: _____ | | | |
| ( ) Other: _____ | | | |
| c. Special Form Material performance test records available for each source design? [173.476(a)] | ( ) | ( ) | ( ) |
| d. Packages Labeled as required? [172.403(a)] | ( ) | ( ) | ( ) |
| ( ) Excepted ( )WI ( )YII ( )YIII | | | |
| Surveys performed to select correct label category and compliance with Rad. Limits? [173.475(i)] | ( ) | ( ) | ( ) |
| e. Packages Marked as required, i.e., proper shipping name, ID No., Spec. No., COC No., etc. [172.300] | | | |
| f. Shipping papers prepared for each shipment? (172.200] | ( ) | ( ) | ( ) |
| Such papers contain required information? [172.203(d)] | ( ) | ( ) | ( ) |
| g. For Licensee private carrier shipments: | | | |
| Vehicles placarded as required? [172.500, 172.504 Table 1) | ( ) | ( ) | ( ) |
| Cargo blocked, braced, tied down in vehicle? [177.842(d)] | ( ) | ( ) | ( ) |
| Any incidents reported to DOT? [171.15-16] | ( ) | ( ) | ( ) |
| h. Does Licensee ship any radwaste? | ( ) | ( ) | ( ) |
| If yes, are shipments: | | | |
| ( ) tendered to common carriers by licensee? | ( ) | ( ) | ( ) |
| ( ) tendered through a Radwaste Broker? | ( ) | ( ) | ( ) |
| If yes, name of Broker _____ | | | |
| Is licensee aware of 10 CFR 61 waste generator requirements? [10 CFR 61] | ( ) | ( ) | ( ) |
| Has licensee classified and characterized waste? [20.311(d)] | ( ) | ( ) | ( ) |

17. NOTIFICATIONS AND REPORTS

a. Licensee in compliance with 10 CFR 19.13 (reports to individuals): Yes ✓ No_____

b. Licensee in compliance with 10 CFR 20.405 (over exposure): Yes ✓ No_____

c. Licensee in compliance with 10 CFR 20.403 (incidents): Yes ✓ No_____

d. Licensee in compliance with 10 CFR 20.402 (theft or loss): Yes ✓ No_____

e. Comments_____

18. POSTING OF NOTICES

a. Licensee in compliance with 10 CFR 19.11(a) or (b): Yes ✓ No_____

b. Licensee in compliance with 10 CFR 19.11(c): Yes ✓ No_____

c. Comments: _____

19. ENVIRONMENTAL MONITORING PROGRAM

a. Environmental Monitoring Program required: Yes_____ No ✓

b. If "Yes" records reviewed: Yes_____ No_____

c. Period reviewed:_____

d. Records appeared adequate: Yes_____ No_____

e. If Environmental Program is not required, briefly describe any existing program:_____

20. CONFIRMATORY MEASUREMENTS

a. Independent measurements made by inspector: Yes_____ No ✓

b. Comments (describe type, results, comparison with licensee results):

21. INDEPENDENT INSPECTION EFFORT

a. Comment on type of independent inspection effort conducted: observed instrument

✓

22. CONTINUATION FROM PREVIOUS PARAGRAPHS - USE BACK OF PAGE IF NECESSARY

✓ ok 1. do not open
ok 2. no cleaning, main. repair
ok 3. exhaust to vent stack
ok 4. gas inventory
ok 5. temp control

NRC FORM 313
(1-84)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires: 5-31-87

# APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

FEDERAL AGENCIES FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIAL SECTION B
631 PARK AVENUE
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
MATERIAL RADIATION PROTECTION SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
MATERIAL RADIATION PROTECTION SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [x] B. AMENDMENT TO LICENSE NUMBER 34-24437-01
- [ ] C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

Qumran Enterprises, Inc.
On-Site Instruments
689 N. James Rd
Columbus OH 43219-1837

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.

689 N. James Rd
Columbus, OH 43219-1837

Note change of address in items 2 and 3

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION: Larry R. Cheetham

TELEPHONE NUMBER: (614) 237-3022

SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

| | |
|---|---|
| 5. RADIOACTIVE MATERIAL<br>a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time. | 6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED. |
| 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE. | 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS. |
| 9. FACILITIES AND EQUIPMENT. | 10. RADIATION SAFETY PROGRAM |
| 11. WASTE MANAGEMENT. | 12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*<br>FEE CATEGORY / AMOUNT ENCLOSED $ |

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

| SIGNATURE CERTIFYING OFFICER | TYPED/PRINTED NAME | TITLE | DATE |
|---|---|---|---|
| | Larry R Cheetham | President | 7/19/89 |

14. VOLUNTARY ECONOMIC DATA

a. ANNUAL RECEIPTS

| | | | |
|---|---|---|---|
| [ ] | <$250K | [ ] | $1M–3.5M |
| [ ] | $250K–500K | [ ] | $3.5M–7M |
| [ ] | $500K–750K | [ ] | $7M–10M |
| [ ] | $750K–1M | [ ] | >$10M |

b. NUMBER OF EMPLOYEES *(Total for entire facility excluding outside contractors)*

c. NUMBER OF BEDS

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION *(Dollar and/or staff hours)* ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? *(NRC regulations permit it to protect confidential commercial or financial–proprietary–information furnished to the agency in confidence)*

[ ] YES [ ] NO

FOR NRC USE ONLY

RECEIVED
JUL 21 1989
REGION III

| TYPE OF FEE | FEE LOG | FEE CATEGORY | COMMENTS | APPROVED BY |
|---|---|---|---|---|
| and | July 17 | 3P | CONTROL NO. 87663 on Site Instruments for | CP |
| AMOUNT RECEIVED | CHECK NUMBER | | | DATE |
| $60 | 1255 | | | 8/31/89 |

JUL 21 1989

PRIVACY ACT STATEMENT ON THE REVERSE

AUG 04 1989

Qumran Enterprises, Inc.
On-Site Instruments
ATTN: Mr. Larry Cheetham
President
689 N. James Rd.
Columbus, OH 43219-1837

Gentlemen:

This refers to your application dated July 19, 1989, for an amendment to Materials License 34-24437-01.

An amendment fee of $60 is required as specified in §170.31 (3P) of 10 CFR 170, copy enclosed. Payment should be made to the U.S. Nuclear Regulatory Commission and mailed to the attention of Cheryl Phillips at our Washington, D.C. address.

Your application will be processed by the Region III Licensing staff located at 799 Roosevelt Road, Glen Ellyn, Illinois 60137. The fee, however, is required prior to issuance of the amendment. When submitting the fee, please refer to CONTROL NUMBER 387663.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we shall assume that you do not wish to pursue your application and will void this action.

Sincerely,

/S/

Glenda Jackson
License Fee Management Branch
Division of Accounting and Finance
Office of the Controller

Enclosure:
10 CFR 170

cc: Region III

DISTRIBUTION:
Pending Fee File
CPhillips, LFMB
OC/DAF R/F
LFMB R/F (2)
DW/RIII/Qumran

| | | |
|---|---|---|
| OFFICE | OC/LFMB | OC/LFMB |
| SURNAME | CPhillips:bg | GJackson |
| DATE | 8/3 /89 | 8/4 /89 |

On-Site Instruments

ENVIRORENTAL™

August 28th, 1989

Cheryl Phillips
United States Nuclear Regulatory Commission
Washington, DC 20555

Dear Ms. Phillips;

Please find enclosed check number 7255. The $60.00 fee payment is to amend materials license # 34-24437-01. We had previously mailed PO# 004515--this form of payment was considered unacceptable. Please destroy PO# 004515, as we have canceled it. – Done 8/31/89 CP

Please refer to Control Number 387663 in regards to this payment.

Thank you for your assistance.

Sincerely

Richard E. Herrold
Analytical Systems Manager

689 North James Road Columbus, Ohio 43219-1837

(614) 237-3022 1-800-551-2783 FAX: (614) 237-1914

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03123
STATUS CODE: 0
FEE CATEGORY: 3P
EXP. DATE: 19900331
FEE COMMENTS: _____

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

LICENSE FEE TRANSMITTAL

A. REGION III

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: QUMRAN ENTERPRISES, INC.
RECEIVED DATE: 890721
DOCKET NO: 3028575
CONTROL NO.: 387663
LICENSE NO.: 34-24437-01
ACTION TYPE: AMENDMENT

2. FEE ATTACHED 0
AMOUNT: _____
CHECK NO.: 0

3. COMMENTS

SIGNED L.O.
DATE 7/25/89

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED /✓/)

1. FEE CATEGORY AND AMOUNT: 3P $60

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT _____
RENEWAL _____
LICENSE _____

3. OTHER _____

SIGNED CR
DATE 8/31/89

A/11

NRC Form 374A
(5-84)

U.S. NUCLEAR REGULATORY COMMISSION



License number 34-24437-01

Docket or Reference number 030-28575

Amendment No. 01

# MATERIALS LICENSE
SUPPLEMENTARY SHEET

Qumran Enterprises, Inc.
On-Site Instruments
689 N. James Road
Columbus, OH 43219-1837

In accordance with application dated July 19, 1989, License Number 34-24437-01 is amended as follows:

Item Two (Address) is changed from: 542 South Drexel Avenue
Columbus, OH 43209

to: 689 N. James Road
Columbus, OH 43219-1837

Condition 10. is amended as follows:

10. Licensed material shall be used only at the licensee's facilities located at 689 N. James Road, Columbus, OH 43219-1837.

A/12

For the U.S. Nuclear Regulatory Commission

Original Signed
By Patricia M. Vacherlon m 11/17/90
Materials Licensing Section, Region III

2 ML 3 DH

Date: October 6, 1989

9006080194 891006
REG3 LIC30
MATLSLICENSING PDR

COPY

n-site nstruments

ENVIRORENTAL™

February 19th, 1990

R
3 P

Richard E. Herrold
(614) 237-3022
Analytical Systems Manager

United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Nuclear Regulatory Commission:

Our materials license number 34-24437-01 is due to expire on March 31st, 1990. Qumran Enterprises, Inc. (dba On-Site Instruments, Inc.) wishes to renew its materials license as "On-Site Instruments, Inc." (OSI), with certain deletions and additions compared to the old license.

OSI has disposed its Varian 02-650-00 electron capture detector by sending the cell and its associated hardware back to Varian Instrument Division. Please find enclosed Varian's "Certificate of Disposition of Materials", as well as NRC form 314 (Certificate of Disposition of Materials) filled out by myself for OSI. OSI wishes to remove the 02-650-00 detector from the renewed license.

OSI generally wishes to obtain a specific license that will allow us to:

a) Clean and regenerate electron capture detectors (ECD).
b) Receive contamination "swipe" samples, quantitate their activity by the use of liquid scintillation counting, and receive payment for that service.

For the ECD's that are out on rental, lease or are purchased, OSI wishes to convert responsibility so that the cells are under the terms of the general licenses that Hewlett-Packard Company and Varian Instruments possess.

Specifically, our license renewal application reads as follows:

1) This is an application for:

RECEIVED
FEB 22 1990
REGION III
A/13
FEB 22 1990

689 North James Road Columbus, Ohio 43219-1837
(614) 237-3022 1-800-551-2783 FAX: (614) 237-1914

CONTROL NO. 88754

Renewal of license number 34-24437-01

2) Name and mailing address of applicant:

On-Site Instruments, Inc.
689 North James Road
Columbus, Ohio 43219-1837

3) Address where licensed material will be used or possessed:

689 North James Road
Columbus, Ohio 43219-1837

A twice-yearly physical inventory will be performed of cells in inventory at OSI, and a monthly report will be sent to the Nuclear Regulatory Commission's Director of Nuclear Material Safety and Safeguards, specifying the location of cells that have been rented, leased or sold, and are not located at 689 North James Road.

Electron capture detector cells will be tested periodically for leakage as required by the manufacturer.

The licensee shall notify customers of their responsibilities as General Licensees, and provide the customers with information provided by the manufacturer(s).

4) Name of person to be contacted about this application:

Richard E. Herrold, telephone number (614) 237-3022

5) Radioactive material:

a) Element and mass number:

Nickel-63 ($^{63}Ni$)

b) Chemical and physical form:

Assembled detectors containing plated source in enclosed cell (Electron Capture Detector Cells; Hewlett-Packard model number 19233 and Varian model number 02-001972-00).

c) Maximum amount which will be possessed at any one time:

No single cell to exceed 15 millicuries each.

6) Purposes for which licensed material will be used:

To be used in Hewlett-Packard and Varian gas chromatographs which will be rented, leased and sold across the United States for sample analysis. These systems containing electron capture detectors will be governed by Hewlett-Packard's and Varian's General Licenses. OSI will also perform sample analysis at its location, or may temporally transport the cells to do analysis at a customer's location.

The cells may be opened and cleaned only by the licensee, by the responsible individual(s).

Maintenance, repair and cleaning of the cells may be performed by the licensee by following the instructions provided by the manufacturer.

These cells may only be opened for cleaning at 689 North James Road, Columbus, Ohio.

Replacement and disposal of the cells shall be performed by the device manufacturer or other persons specifically authorized by the NRC to perform such services.

7) Individuals responsible for radiation safety program, and their training and experience:

Licensed material shall be exposed by Richard E. Herrold, Analytical Systems Manager or Larry R. Cheetham, President.

Cleaning shall be performed by physical abrasion of the cell surface to remove coated contamination such as oxides of the materials injected into the chromatograph. The procedure used will be as described by the manufacturer. The responsible individual(s) will receive training from the manufacturer(s) if necessary.

Richard E. Herrold received formal training, as specified in 10 CFR §19.12, from the Office of Radiation Safety, The Ohio State University, Columbus, Ohio, as a one day course in 1984. An outline of that course follows:

a) Role of U.S. Nuclear Regulatory Commission.
b) Source and status of by-product material.
c) Scope of Type A specific license.
d) Requirements OSU must fulfill.
e) Permissible levels of exposure, current dose levels, background levels.
f) Effects of radiation exposure.

g) Decontamination techniques.
h) Role of Radiation safety committee and Medical Radionuclide committee.
i) Inspections of OSU by NRC.
j) Routine sequence of warning notifications.
k) Compliance checklist; Laboratory surveys, procedures and inspection forms, hand to mouth precautions, hot sinks, instrument calibration, posting warning signs, inventory records, calculations.
l) Use of radiation detection instruments.

He was radiation safety officer/liaison person for two years in the laboratory of Prof. Heinz G. Floss at Ohio State. Over three years, he synthesized radiochemicals and conducted feeding experiments to fermentation cultures in the course of his graduate research. He has operated and maintained gas chromatographs for more than nine years. At The Ohio State Biotechnology Center, he acted as a adviser to the radiation safety officer of the Center; used, calibrated and repaired radiation detection devices. He has a Bachelor of Arts degree in chemistry from The College of Wooster, Wooster, Ohio, and a Master of Science degree in biochemistry from The Ohio State University, Columbus, Ohio.

Larry R. Cheetham is founder and has been the President of OSI for seven years; consulting on the detection and measurement of environmental contamination. He has a Bachelor of Science degree in biology from Capital University, Columbus, Ohio.

8) Training for individuals working in or frequenting restricted areas:

A training course provided to workers will be given by Richard E. Herrold instructing individuals working in, or frequenting any portion of the restricted area, concerning the storage, transfer or any other use of radioactive materials. Individuals shall be instructed in the health protection problems associated with exposure to radioactive materials.

Only the responsible individuals will be allowed to perform maintenance or repair operations.

9) Facilities and equipment:

During normal operations, exhaust from the detector cells containing licensed material shall be vented through a laboratory fume hood or other suitable means designed to reduce potential exposure to personnel to the lowest practicable level.

The cleaning and handling of ECD cells shall be performed only in a special, locked room identified with appropriate placards. This room will also contain a "hot sink" designated for the disposal of liquid waste. The room shall only be accessible to the person(s) authorized to clean the cells. The room will be locked when the authorized person(s) are not present.

Quantitation of radioactivity may be performed by the use of a liquid scintillation counter located at OSI, that has the ability to perform quench correction by the use of an external standard, that will be contained in the liquid scintillation counting instrument. OSI may perform quantitation of radioactivity by scintillation counting for customers who pay for such a service. Quantitation of radioactivity may also be performed by an NRC authorized company, such as Nuclear Radiation Developments, Inc., Grand Island, NY or National Leak Test Center, N. Tonawanda, NY.

10) Radiation safety program:

PERSONNEL MONITORING EQUIPMENT Since the radiation source is nickel-63, the use of personnel monitoring devices is not required.

RADIATION DETECTION INSTRUMENTS Since the radiation source is nickel-63, the use of radiation detection devices is not required.

LEAK TESTING Leak test samples will be obtained as follows:

a) Disconnect the column from the ECD.
b) Wipe the inside and outside of the detector entrance fitting (including column and adapter connections) with a piece of filter paper.
c) Wipe the detector housing (outside case) with another filter paper.
d) Disconnect the exit tubing from the detector vent tube. Wipe the inside of the exit tubing with a third filter paper
e) The tubing running from the detector vent tube to exhaust area shall be inspected.
f) The filter papers will be inserted into separate scintillation vials and cocktail will be added. The activity of the sample shall be quantitated by liquid scintillation counting at OSI or by a NRC authorized company.

Richard E. Herrold will perform the quantitation operations. Sample calculations of the conversion of the measurement data to microcuries (μCi) follows:

**Counter % efficiency calculation**

$$\frac{\text{Counts per minute (CPM) of standard material}}{\text{Disintegrations per minute (DPM) of standard}} \times 100 = \%\ \text{efficiency}$$

**efficiency conversion**

$$\frac{\text{CPM of unknown}}{\%\ \text{efficiency}} = \text{DPM of unknown}$$

**activity conversion**

$$\frac{\text{DPM of unknown}}{2.22 \times 10^6\ \text{DPM}/\mu\text{Ci}} = \mu\text{Ci of unknown}$$

CELL USAGE, MAINTENANCE, REPAIR AND CLEANING Instructions contained in the manufacturer's manuals for the chromatography device will be followed. Cleaning of the ECD cells shall be performed by following the written procedures provided by the device manufacturer for each operation requested.

LABORATORY SURVEYS Areas where ECD cells are opened will have will be surveyed by wipe test for contamination monthly. All records of surveys shall be recorded in units of disintegrations per minute since regulations defining contamination are written in dpm/100 $cm^2$. Periods of "no use" must be documented, in the survey records, in lieu of wipes.

HAND TO MOUTH PRECAUTIONS Smoking eating, drinking or applying cosmetics shall be prohibited in all posted areas. Food preparation and storage is prohibited in any posted laboratory area.

HOT SINKS Hot sink records must be posted and kept up to date. Each discharge of radioactive material in this sink will be documented. "No use" periods of inactivity will be documented monthly.

INSTRUMENT CALIBRATION Survey instruments are required to be calibrated annually.

POSTING WARNING SIGNS All restricted areas are to be posted with appropriate caution signs and labels, as well as vessels containing radioactive materials.

11) Waste management:

Solid waste from the cleaning of the ECD cells will be stored in specially marked trash receptacles. If liquid waste is generated, it shall be disposed in the "hot sink" or, if very high level, will be absorbed onto to an appropriate sorbant, such as "Lockit" by JV Manufacturing, and disposed of as solid waste. Radioactive material in the form of solid waste will be transferred to a licensee specifically authorized to possess it.

Biodegradable scintillation cocktail will used for the quantitation of activity. A specially designated "hot sink" will be used for the disposal of scintillation cocktail. The amount of radioactive material discharged into the sewerage system will be recorded daily, and the total amount of discharge will not exceed 10 μCi per day. The gross quantity of radioactive material released into the sewerage system will not exceed 1 Curie per year.

If the measured activity is found to be *de minimis* (< 0.0008 μCi/ml) the cocktail will be discharged into the municipal sewer system, and the counting vial will be discarded as normal non-radioactive waste. If the scintillation vial is found to contain > 0.0008 μCi/ml, the cocktail will be diluted and discharged into the specially designated sink, and the vial will placed into solid radioactive waste.

12) Licensee fee:

Fee category 3P

Amount Enclosed $ 120.00

Please accept this renewal application, and be sure to contact myself if you have any questions.

Sincerely;

Richard E. Herrold
Analytical Systems Manager

NRC FORM 314
(6-89)
10 CFR 30.36(d)(1)(iii)
10 CFR 40.42(d)(1)
10 CFR 70.38(d)(1)(iii)

U.S. NUCLEAR REGULATORY COMMISSION

# CERTIFICATE OF DISPOSITION OF MATERIALS

INSTRUCTIONS: SEND THE COMPLETED CERTIFICATE TO THE NRC OFFICE SPECIFIED ON THE REVERSE. *(All items MUST be completed—print or type)*

APPROVED BY OMB 3150-0028
EXPIRES 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 5 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0028), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503

LICENSEE NAME AND ADDRESS

Qumran Enterprises, Inc.
On-Site Instruments
689 N. James Rd.
Columbus, Ohio 43219

LICENSE NUMBER: 34-24437-01

LICENSE EXPIRATION DATE: March 31st, 1990

THE LICENSEE OR ANY INDIVIDUAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE LICENSEE CERTIFIES THAT:
*(Check and/or complete the appropriate item(s) below.)*

## A. MATERIALS DATA *(Check one and complete as necessary)*

[ ] 1. NO MATERIALS HAVE EVER BEEN PROCURED OR POSSESSED BY THE LICENSEE UNDER THIS LICENSE.

OR

[XX] 2. ALL MATERIALS PROCURED AND/OR POSSESSED BY THE LICENSEE UNDER THE LICENSE NUMBER CITED ABOVE HAVE BEEN DISPOSED OF IN THE FOLLOWING MANNER. *(If additional space is needed, use the reverse side or provide attachments.)*

Describe specific material transfer actions and, if there were radioactive wastes generated in terminating this license, the disposal actions, including the disposition of low-level radioactive waste, mixed waste, Greater-than-Class-C waste, and sealed sources, if applicable.

The 3H absorbed into Ti cell, as well as heater base and exhaust lines were mailed to Varian Instrument Division on Dec. 4th, 1990.

For transfers, specify the date of the transfer, the name of the licensed recipient, and the recipient's NRC license number or Agreement State name and license number. Varian transfered the cell to Radioactive Material Disposal Servic US Ecology, Inc. 7066-A Commerce Circle, Pleasanton, CA 94566 (415) 463-9280 License # 2873-60

If materials were disposed of directly by the licensee rather than transferred to another licensee, licensed disposal site or waste contractor, describe the specific disposal procedures *(e.g., decay in storage)*

SEE ALSO ATTACHED MATERIALS DISPOSITION CERTIFICATE FROM Varian

## B. OTHER DATA

[ ] 1. OUR LICENSE HAS NOT YET EXPIRED; PLEASE TERMINATE IT.

2. WAS A RADIATION SURVEY CONDUCTED TO CONFIRM THE ABSENCE OF LICENSED RADIOACTIVE MATERIALS AND TO DETERMINE WHETHER ANY CONTAMINATION REMAINS ON THE PREMISES COVERED BY THE LICENSE? *(Check one)*

[XX] NO *(Attach explanation)*

[ ] YES, THE RESULTS *(Check one)*

[ ] ARE ATTACHED, or

[ ] WERE FORWARDED TO NRC ON *(Date)*

3. THE PERSON TO BE CONTACTED REGARDING THE INFORMATION PROVIDED ON THIS FORM

NAME: Richard E. Herrold

TELEPHONE NUMBER: 614-237-3022

4. MAIL ALL FUTURE CORRESPONDENCE REGARDING THIS LICENSE TO

On-Site Instruments
689 N. James Rd.
Columbus, Ohio 43219

## CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

SIGNATURE: [signature]

DATE: Feb 19th, 1990

PRINTED NAME AND TITLE: Richard E. Herrold, Analytical Systems Manager

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECTS. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.



CONTROL NO. 88754

# Attachment to NRC Form 314

Qumran Enterprises, Inc.
dba On-Site Instruments, Inc.
License number 34-24437-01
589 N. James Road
Columbus, Ohio 43219

This attachment explains why a radiation survey was not "conducted to confirm the absence of licensed radioactive material and to determine whether any contamination remained on the premises covered by the license" after the Varian ECD Model 02-650-00 s/n 141 was disposed of.

Qumran received a used, rebuilt cell that was shipped from Varian on October 24th, 1985. That cell was never used for analysis, heated in the instrument or installed in the instrument. In fact, the cell was never removed from the plastic box that held it when it arrived. The cell was shipped back to Varian in that plastic box also.

Considering the non-use of this source, the possibility of the presence of environmental contamination was considered to be extremely remote, and therefore, no survey was performed.

# CERTIFICATE OF DISPOSITION OF MATERIALS

*(All Blocks MUST BE Completed)*

| LICENSEE NAME AND ADDRESS | LICENSE NUMBER * |
|---|---|
| On-Site Instruments<br>689 N. James Road<br>Columbus, Ohio<br>43219 | 34-24437-01 |
| | LICENSE EXPIRATION DATE * |
| | March 31, 1990 |

The licensee or any individual executing this certificate on behalf of the licensee certify that: *(Check and/or complete appropriate item(s) below.)*

☐ 1. No materials have been procured by licensee.

☐ 2. All materials procured and/or possessed by licensee under license number shown above, have been transferred to: _____

which has NRC license number: _____

☒ 3 The material procured and/or possessed by licensee under license number shown above have been transferred to: Varian Instrument Division, 2700 Mitchell Drive, Walnut Creek, CA 94598

which has license number: 0256-07 issued by California Dept. of Health,

an Agreement State pursuant to Section 274 of the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974.

☒ 4. Materials have been disposed of in the following manner. *(Describe specific disposal procedures — if additional space is needed, use reverse side.)*

Radioactive Material Disposal Service
US Ecology, Inc.
7066-A Commerce Circle
Pleasanton, CA 94566

License #2873-60

Phone # (415) 463-9280

Received for disposal by VID-RSO: [signature] Date: 12/11/89

Model Nr. of Device 02-650-00 Serial # 141
Isotope: H3 absorbed into Ti Amount: 250 mCi Form: Solid

send this form to the Radiation Authority to update or cancel your license.

CERTIFYING OFFICIAL

SIGNATURE

DATE

*Customer to fill out if left blank.

Varian / Instrument Group / Walnut Creek Division · 2700 Mitchell Drive / Walnut Creek
P.O. Box 9016
California 94598 U.S.A.
Tel. (415) 939-2400
TWX 910-385-6301

varian

Dear Customer:

The enclosed Certificate of Disposition of Materials is sent to you as proof that Varian has accepted your detector for disposal.

If you intend to terminate your Radioactive Material License please send a copy of this form attached to the form "Request To Terminate Radioactive Material License" (in duplicate) to the authority which supplied you with your license. If you continue your license please keep the Certificate of Disposal of Material on file in case the authority inspects your Radioactive Material Inventory. Be sure to sign and date this form. Also fill out your license number and expiration date in the upper right spaces of the enclosed certificate.

Sincerely,

Jerry Van Osenbruggen
RSO VIC WD

CONTROL NO. 88754

NRC FORM 313
(10-87)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires: 6-30-90

# APPLICATION FOR MATERIAL LICENSE

**INSTRUCTIONS:** SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

**APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:**

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:**

**CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION B
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

**ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCEAR MATERIALS SAFETY SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

**IF YOU ARE LOCATED IN:**

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

**ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

**ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
NUCLEAR MATERIALS SAFETY SECTION
1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

**PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.**

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [XX] C. RENEWAL OF LICENSE NUMBER 34-24437-01

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

On-Site Instruments, Inc.
689 North James Road
Columbus, Ohio 43219-1837

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.

689 North James Road
Columbus, Ohio 43219-1837

Location of "off-site" systems will be reported (see cover letter)

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION: Richard E. Herrold

TELEPHONE NUMBER: (614) 237-3022

SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY 3P
AMOUNT ENCLOSED $ 120

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

| SIGNATURE—CERTIFYING OFFICER | TYPED/PRINTED NAME | TITLE | DATE |
|---|---|---|---|
| | Richard E. Herrold | Analytical Systems Manager | Feb. 19,1990 |

FOR NRC USE ONLY

| TYPE OF FEE | FEE LOG | FEE CATEGORY | COMMENTS | APPROVED BY |
|---|---|---|---|---|
| | | | | FEB 22 1990 |
| AMOUNT RECEIVED | CHECK NUMBER | | | DATE |

RECEIVED
REGION III

CONTROL NO.

**Items 5 through 11 for renewal of license number 34-24437-01, On-Site Instruments, Inc., 689 N. James Rd., Columbus, Ohio 43219-1837.**

5) Radioactive material:

a) Element and mass number:

Nickel-63 ($^{63}Ni$)

b) Chemical and physical form:

Assembled detectors containing plated source in enclosed cell (Electron Capture Detector Cells; Hewlett-Packard model number 19233 and Varian model number 02-001972-00).

c) Maximum amount which will be possessed at any one time:

No single cell to exceed 15 millicuries each.

6) Purposes for which licensed material will be used:

To be used in Hewlett-Packard and Varian gas chromatographs which will be rented, leased and sold across the United States for sample analysis. These systems containing electron capture detectors will be governed by Hewlett-Packard's and Varian's General Licenses. OSI will also perform sample analysis at its location, or may temporally transport the cells to do analysis at a customer's location.

The cells may be opened and cleaned only by the licensee, by the responsible individual(s).

Maintenance, repair and cleaning of the cells may be performed by the licensee by following the instructions provided by the manufacturer.

These cells may only be opened for cleaning at 689 North James Road, Columbus, Ohio.

Replacement and disposal of the cells shall be performed by the device manufacturer or other persons specifically authorized by the NRC to perform such services.

7) Individuals responsible for radiation safety program, and their training and experience:

Licensed material shall be cleaned by Richard E. Herrold, Analytical Systems Manager or Larry R. Cheetham, President.

Cleaning shall be performed by physical abrasion of the cell surface to remove coated contamination such as oxides of the materials injected into the chromatograph. The procedure used will be as described by the manufacturer. The responsible individual(s) will receive training from the manufacturer(s) if necessary.

Richard E. Herrold received formal training, as specified in 10 CFR §19.12, from the Office of Radiation Safety, The Ohio State University, Columbus, Ohio, as a one day course in 1984. An outline of that course follows:

a) Role of U.S. Nuclear Regulatory Commission.
b) Source and status of by-product material.
c) Scope of Type A specific license.
d) Requirements OSU must fulfill.
e) Permissible levels of exposure, current dose levels, background levels.
f) Effects of radiation exposure.
g) Decontamination techniques.
h) Role of Radiation safety committee and Medical Radionuclide committee.
i) Inspections of OSU by NRC.
j) Routine sequence of warning notifications.
k) Compliance checklist; Laboratory surveys, procedures and inspection forms, hand to mouth precautions, hot sinks, instrument calibration, posting warning signs, inventory records, calculations.
l) Use of radiation detection instruments.

He was radiation safety officer/liaison person for two years in the laboratory of Prof. Heinz G. Floss at Ohio State. Over three years, he synthesized radiochemicals and conducted feeding experiments to fermentation cultures in the course of his graduate research. He has operated and maintained gas chromatographs for more than nine years. At The Ohio State Biotechnology Center, he acted as a adviser to the radiation safety officer of the Center; used, calibrated and repaired radiation detection devices. He has a Bachelor of Arts degree in chemistry from The College of Wooster, Wooster, Ohio, and a Master of Science degree in biochemistry from The Ohio State University, Columbus, Ohio.

Larry R. Cheetham is founder and has been the President of OSI for seven years; consulting on the detection and measurement of environmental contamination. He has a Bachelor of Science degree in biology from Capital University, Columbus, Ohio.

8) Training for individuals working in or frequenting restricted areas:

A training course provided to workers will be given by Richard E. Herrold instructing individuals working in, or frequenting any portion of the restricted area, concerning the storage, transfer or any other use of radioactive materials. Individuals shall be instructed in the health protection problems associated with exposure to radioactive materials.

Only the responsible individuals will be allowed to perform maintenance or repair operations.

9) Facilities and equipment:

During normal operations, exhaust from the detector cells containing licensed material shall be vented through a laboratory fume hood or other suitable means designed to reduce potential exposure to personnel to the lowest practicable level.

The cleaning and handling of ECD cells shall be performed only in a special, locked room identified with appropriate placards. This room will also contain a "hot sink" designated for the disposal of liquid waste. The room shall only be accessible to the person(s) authorized to clean the cells. The room will be locked when the authorized person(s) are not present.

Quantitation of radioactivity may be performed by the use of a liquid scintillation counter located at OSI, that has the ability to perform quench correction by the use of an external standard, that will be contained in the liquid scintillation counting instrument. OSI may perform quantitation of radioactivity by scintillation counting for customers who pay for such a service. Quantitation of radioactivity may also be performed by an NRC authorized company, such as Nuclear Radiation Developments, Inc., Grand Island, NY or National Leak Test Center, N. Tonawanda, NY.

10) Radiation safety program:

PERSONNEL MONITORING EQUIPMENT Since the radiation source is nickel-63, the use of personnel monitoring devices is not required.

RADIATION DETECTION INSTRUMENTS Since the radiation source is nickel-63, the use of radiation detection devices is not required.

LEAK TESTING Leak test samples will be obtained as follows:

a) Disconnect the column from the ECD.
b) Wipe the inside and outside of the detector entrance fitting (including column and adapter connections) with a piece of filter paper.
c) Wipe the detector housing (outside case) with another filter paper.
d) Disconnect the exit tubing from the detector vent tube. Wipe the inside of the exit tubing with a third filter paper
e) The tubing running from the detector vent tube to exhaust area shall be inspected.
f) The filter papers will be inserted into separate scintillation vials and cocktail will be added. The activity of the sample shall be quantitated by liquid scintillation counting at OSI or by a NRC authorized company.

Richard E. Herrold will perform the quantitation operations. Sample calculations of the conversion of the measurement data to microcuries (μCi) follows:

**Counter % efficiency calculation**

$$\frac{\text{Counts per minute (CPM) of standard material}}{\text{Disintegrations per minute (DPM) of standard}} \times 100 = \%\ \text{efficiency}$$

**efficiency conversion**

$$\frac{\text{CPM of unknown}}{\%\ \text{efficiency}} = \text{DPM of unknown}$$

**activity conversion**

$$\frac{\text{DPM of unknown}}{2.22 \times 10^6\ \text{DPM}/\mu\text{Ci}} = \mu\text{Ci of unknown}$$

CELL USAGE, MAINTENANCE, REPAIR AND CLEANING Instructions contained in the manufacturer's manuals for the chromatography device will be followed. Cleaning of the ECD cells shall be performed by following the written procedures provided by the device manufacturer for each operation requested.

LABORATORY SURVEYS Areas where ECD cells are opened will have will be surveyed by wipe test for contamination monthly. All records of surveys shall be recorded in units of disintegrations per minute since regulations defining contamination are written in dpm/100 $cm^2$.

Periods of "no use" must be documented, in the survey records, in lieu of wipes. 5

HAND TO MOUTH PRECAUTIONS Smoking eating, drinking or applying cosmetics shall be prohibited in all posted areas. Food preparation and storage is prohibited in any posted laboratory area.

HOT SINKS Hot sink records must be posted and kept up to date. Each discharge of radioactive material in this sink will be documented. "No use" periods of inactivity will be documented monthly.

INSTRUMENT CALIBRATION Survey instruments are required to be calibrated annually.

POSTING WARNING SIGNS All restricted areas are to be posted with appropriate caution signs and labels, as well as vessels containing radioactive materials.

11) Waste management:

Solid waste from the cleaning of the ECD cells will be stored in specially marked trash receptacles. If liquid waste is generated, it shall be disposed in the "hot sink" or, if very high level, will be absorbed onto to an appropriate sorbant, such as "Lockit" by JV Manufacturing, and disposed of as solid waste. Radioactive material in the form of solid waste will be transferred to a licensee specifically authorized to possess it.

Biodegradable scintillation cocktail will used for the quantitation of activity. A specially designated "hot sink" will be used for the disposal of scintillation cocktail. The amount of radioactive material discharged into the sewerage system will be recorded daily, and the total amount of discharge will not exceed 10 μCi per day. The gross quantity of radioactive material released into the sewerage system will not exceed 1 Curie per year.

If the measured activity is found to be *de minimis* (< 0.0008 μCi/ml) the cocktail will be discharged into the municipal sewer system, and the counting vial will be discarded as normal non-radioactive waste. If the scintillation vial is found to contain > 0.0008 μCi/ml, the cocktail will be diluted and discharged into the specially designated sink, and the vial will placed into solid radioactive waste.

MAR 14 1990

On-Site Instruments, Inc.
ATTN: Richard E. Herald, Manager
689 N. James Road
Columbus, OH 43219-1837

License No. 34-24437-01
Control No. 88754

SUBJECT: LICENSE RENEWAL APPLICATION

Gentlemen:

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified and your license number.

Sincerely,

Original Signed By
Patricia M. Vacherlon
Materials Licensing Section

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Vacherlon/mj
03/ /90

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APR 20 1990

On-Site Instruments, Inc.
ATTN: Richard E. Harrold
689 North James Road
Columbus, OH 43219

Gentlemen:

We have reviewed your application dated February 19, 1990, requesting renewal of NRC Byproduct Material License No. 34-24437-01 and find that we will need additional information as follows:

1. Please review and resubmit Item 9 of your application to include the annotated drawing requested in Item 9 of the enclosed Regulatory Guide (Task FC 412-4).

2. Page one of your letter dated February 19, 1990, refers to converting "responsibility" for the detector cells. It is not clear what is meant by this statement. Hewlett Packard and Varian possess specific licenses to distribute certain detector cells to individuals who are generally licensed pursuant to 10 CFR 31, Section 31.5 (enclosed). When a transfer of byproduct material is made, it must be conducted in accordance with 10 CFR 30.41 (enclosed). Therefore, when such a transfer is conducted and you take possession of a detector cell, you are responsible for the safe use and storage of the material until you have transferred the material back to the original owner. Please revise this portion of your letter to conform with the regulations regarding transfers of byproduct material.

3. Please provide a summary of Mr. Cheetham's "hands-on" experience with servicing of electron capture detector cells and related experience. Include the nuclides he has had experience with, the types of operations conducted, the maximum activities used, where such experience was gained and under who's supervision.

4. Please supplement your procedures for detector cell cleaning leak testing and maintenance. We would expect such procedures to include:

   a. confirmation that all incoming sources will be treated as leaking until it has been determined otherwise,

   b. what restrictions and precautions must be followed by individuals handling the sources. Such precautions should include, but not be limited to:

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i. methods of limiting extremity exposure while handling the cells,

ii. what operations shall not be conducted with the detector cells (i.e., modifications of cell construction or labeling, etc.)

iii. what contamination surveys are to be conducted if a cell is found to be leaking, as well as who is to be notified and what corrective actions are to be taken in the event a source is found to be leaking.

c. your procedures for prompt notification of clients who's sources are found to be leaking.

d. confirmation that the "physical abrasion" process used to clean the detector cells will not, in any way, disturb the encapsulation of the nickel-63. Please provide a detailed description of your cleaning process and confirm that it is in accordance with the manufacture's recommendations.

5. Please outline your procedures for complying with 10 CFR Part 71 (enclosed) for the transportation and shipment of byproduct material.

6. Please list the radiation detection instruments you will have available for use in performing the leak-test services. Your list should specify for each instrument (1) the type of instrument, (2) the number of instruments available, (3) the type of radiation detected, (4) the sensitivity range, and (5) the specific use. The instruments listed should have sufficient sensitivity to accurately measure any radioactive contamination on leak-test samples obtained from your customer's sources and devices.

7. Quantitative measuring instruments used to perform analytic measurements on leak-test samples should be calibrated before use with standard sources having an accuracy of at least ±5% of the stated value. Standard sources should be traceable to a primary radiation standard such as those maintained by the National Bureau of Standards. Please supply the following information on the calibration of the instruments you will use to perform measurements on leak-test samples:

a. List the standard sources to be used with each listed wipe-sample counting instrument by nuclide and quantity of radioactive material contained in each of the sources.

b. Provide a statement of the accuracy of each standard source (information usually available from the source manufacturer). At a minimum, you should state that the accuracy of the standard will be ±5% of the stated value and traceable to a primary radiation standard such as those maintained by the National Bureau of Standards.

8. Please describe your means of assuring that you have up-to-date manufacturer's instructions for the cleaning and leak testing of detector cells.

9. Please provide a sample of the leak test certificate you will use to document and forward leak test results for your clients. As a minimum, we would expect such records to include:

   a. Identification of each source or device (manufacturer, model number, serial number, isotope, quantity),

   b. Identification of each customer (name, address, person to contact),

   c. Radiation survey measurements, as appropriate,

   d. Date of test and date of next scheduled test,

   e. Information on test methods used (e.g., type of wipe such as dry filter paper or wet cloth swipe and areas wiped),

   f. Leak-test results expressed in microcuries of alpha, beta, or gamma radiation for each area wiped, and

   g. Identification of the individual who performed the test.

   Similarly, please submit a copy of your form for reporting the results of your analysis of "swipe" samples.

10. Item 11 (Waste Management) of your application must be revised to clarify your reference to "de minimis" quantities. 10 CFR Part 20, Section 20.306 establishes such quantities only for tritium and carbon-14, not nickel-63 or other nuclides. Please revise this section accordingly and resubmit.

11. Please specify a total possession limit for each isotope your wish to possess. This limit will be placed on your license and will be used to determine the need for you to submit a decommissioning funding plan as described in 10 CFR Part 30, Section 30.35 (enclosed).

We will continue our review of your application upon receipt of this information. Please reply in duplicate, within 30 days, and refer to Control Number 88754.

Failure to respond to this letter within the specified time may result in the denial of your renewal, which would require all radioactive material be placed in secure storage until a new license can be issued. Use and/or possession of radioactive material without a valid NRC license is basis for the NRC to take escalated enforcement actions, which may include civil penalties and/or criminal actions.

If you have any questions or require clarification or any of the information stated above, you may contact us at (708) 790-5625.

Sincerely,

Original Signed By
William J. Adam, Ph.D.
Materials Licensing Section

Enclosures:
1. Regulatory Guide Task FC 412-4 (Leak Testing Services)
2. 10 CFR Parts 20, 30, 31 and 71

RIII

Adam/gd
04/ /90

NRC FORM 313
(10-87)
10 CFR 30, 32, 33, 34, 35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires: 6-30-90

# APPLICATION FOR MATERIAL LICENSE

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U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIALS SAFETY SECTION B
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

**ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:**

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
NUCEAR MATERIALS SAFETY SECTION
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U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

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U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

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U.S. NUCLEAR REGULATORY COMMISSION, REGION V
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1450 MARIA LANE, SUITE 210
WALNUT CREEK, CA 94596

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1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [ ] B. AMENDMENT TO LICENSE NUMBER _____
- [X] C. RENEWAL OF LICENSE NUMBER 34-24437-01

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip Code)*

On-Site Instruments, Inc.
689 North James Road
Columbus, Ohio 43219-1837

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.

689 North James Road, Columbus, Ohio 43219-1837, and to be distributed as described on the attached sheets.

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION: Richard E. Herrold

TELEPHONE NUMBER: (614) 237-3022

SUBMIT ITEMS 5 THROUGH 11 ON 8½ x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

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a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY 3P
AMOUNT ENCLOSED $ -0-

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

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| SIGNATURE, CERTIFYING OFFICER | TYPED/PRINTED NAME | TITLE | DATE |
|---|---|---|---|
| | Richard E. Herrold | Analytical Systems Manager | May 11th, 1990 |

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RECEIVED
MAY 14 1990
REGION III

FOR NRC USE ONLY

| TYPE OF FEE | FEE LOG | FEE CATEGORY | COMMENTS | APPROVED BY |
|---|---|---|---|---|
| | | | | |
| AMOUNT RECEIVED | CHECK NUMBER | | | DATE |
| | | | | |

# APPLICATION FOR MATERIAL LICENSE

Attachment to Form 313, dated May 11th, 1990

**Item 1:** This is an application for:

Subitem C: Renewal of license number 34-24437-01

**Item 2:** Name and mailing address of applicant:

On-Site Instruments, Inc.
689 North James Road
Columbus, Ohio 43219-1837

**Item 3:** Address where licensed material will be used or possessed:

689 North James Road
Columbus, Ohio 43219-1837

A twice-yearly physical inventory will be performed of cells in inventory at On-Site Instruments (OSI). When a ECD cell is transfered from the manufacturer, OSI is responsible for the safe use and storage of the material until we have transferred the material back to the original owner. A monthly report will be sent to the Nuclear Regulatory Commission's Director of Nuclear Material Safety and Safeguards, specifying the location of cells that have been rented, leased or sold, and are not at the 689 North James Road location.

OSI shall be licensed to distribute ECD cells to our rental customers who shall be generally licensed pursuant to 10 CFR §31.5. Rental customers who receive the ECD cells installed in gas chromatographs from OSI shall be governed by the transfer restrictions described in 10 CFR § 30.41. Customers renting, leasing-to-purchase or purchasing ECD's will receive Hewlett-Packard's publication: "Information for General Licensees" (# 43-5953-1798), which contains 10 CFR §§20.402, 20.403, 30.34, 30.51-30.53, 30.61-30.63, 31.5 and 49 CFR §§ 173.421-173.423; instructions on the theory, use, maintenance, radioactivity leak tests and procedures for incident reporting. Enclosed are two copies of that publication (exhibit B). Customers leasing or purchasing gas chromatographs must affirm, in writing, that they will abide with regulations listed in 10 CFR §§20.402, 20.403, 30.34, 30.51-30.53, 30.61-30.63, 31.5 and 49 CFR §§ 173.421-173.423. Customers will also receive the following notice:

On-Site Instruments

Electron Capture Detector Information Sheet

Enclosed is Hewlett-Packard's publication: "Information for General Licensees" (# 43-5953-1798). The information in it is summarized below, however, the U.S. Nuclear Regulatory Commission (NRC) requires you to be familiar with the information in it.

Electron Capture Detectors (ECD) we distribute contain a $^{63}Ni$ radioactive source, which is electroplated onto the inner surface of the detector cell body. $^{63}Ni$ has a half life of 101.1 years, and has a maximum activity of 15 mCi; 65.87 KeV emission of $\beta$ radiation.

On-Site Instrument's specific license provides that you automatically become a General Licensee when you rent, lease or buy a ECD from OSI. It is your responsibility, if necessary, to register with the regulatory agency of the state where the instrument is used, if that state is an "Agreement State".

You may not :

1) Open the detector cell.
2) Modify the cell in any manner.
3) Use any solvent, including water, to clean the cell.
4) Interfere with or attempt to defeat the overheat circuitry supplied with the detector.
5) Remove or deface the identification tag attached to the cell.

You are required to:

1) Perform a radioactivity leak check at least every six months. OSI will pay for the analysis of the wipe samples if you are renting from us.
2) Be able to report to OSI, at any time, the location of each ECD.
3) Maintain records as required by the NRC.
4) Notify the NRC and OSI in case of any incidents or failures which might lead to a hazardous condition.

Item 4: Name of person to be contacted about this application:

Richard E. Herrold, telephone number (614) 237-3022

Item 5: Radioactive materials:

a) Elements and mass numbers:

Nickel-63 ($^{63}$Ni), Cesium-137 ($^{137}$Cs)

b) Chemical and physical forms:

Assembled detectors containing plated source in enclosed, sealed cell (Electron Capture Detector Cells; Hewlett-Packard model number 19233 and Varian model number 02-001972-00). The vast majority of the cells will be manufactured by Hewlett-Packard.

Analytical sample for the calibration and efficiency testing of the liquid scintillation counter.

c) Maximum amount which will be possessed at any one time:

No single cell or standard is to exceed 15 millicuries each. Total activity of all cells to be less than 5 curie or 330 cells. Hewlett-Packard and Varian have assumed responsibility for the decommissioning of the cells.

Item 6: Purposes for which licensed material will be used:

To be used in Hewlett-Packard and Varian gas chromatographs which will be rented, leased and sold across the United States for sample analysis. These systems containing electron capture detectors will be governed by Hewlett-Packard's and Varian's general Licenses. OSI will also perform sample analysis at its location, or may temporarily transport the cells to do analysis at a customer's location.

The cells may be opened and cleaned only by the licensee, by the responsible individual(s). Maintenance, repair and cleaning of the cells may be performed by the licensee by following the instructions provided by the manufacturer. These cells may only be opened for cleaning at 689 North James Road, Columbus, Ohio.

The analytical sample will be used to calibrate the liquid scintillation counter's calibration and efficiency for determinations of nickel-63 leak test samples acquired from gas chromatographs. This standard source shall be at least +/- 5% of the stated value, and traceable to primary standards. This source will be acquired when the license is granted.

Item 7: Individuals responsible for radiation safety program, and their training and experience:

RICHARD E. HERROLD is the laboratory manager, who has been employed at OSI since July, 1989. He will be the primary responsible individual. He received formal training, as specified in 10 CFR §19.12, from the Office of Radiation Safety, The Ohio State University, Columbus, Ohio, as a one day course in April, 1984. Topics of that course were the role of U.S. Nuclear Regulatory Commission, the source and status of by-product material, the scope of a Type A specific license, the requirements OSU must fulfill to operate under its license, permissible levels of exposure, current dose and background levels, the effects of radiation exposure, decontamination techniques, the role of safety committee and medical radionuclide committee, the role of inspections of OSU by NRC, the routine sequence of warning notifications and the use of radiation detection instruments. Compliance checklists were reviewed that included laboratory surveys, procedures and inspection forms, hand to mouth precautions, hot sinks, instrument calibration, posting warning signs, inventory records and calculations.

He was radiation safety officer/liaison for two years in the laboratory of Prof. Heinz G. Floss at Ohio State. Over three years, he synthesized radiochemicals of low millicurie activity of $^{3}H$ and $^{14}C$ and conducted feeding experiments to fermentation cultures in the course of his graduate research. He has operated and maintained gas chromatographs for more than nine years. At The Ohio State Biotechnology Center, he acted as an adviser to the radiation safety officer of the Center; used, calibrated and repaired radiation detection devices. He has installed and removed sealed 15 millicurie $^{63}Ni$ ECD modules from gas chromatographs during the course of his employment at OSI. He received a Bachelor of Arts degree in chemistry (1980) from The College of Wooster, Wooster, Ohio, and a Master of Science degree in biochemistry (1987) from The Ohio State University, Columbus, Ohio.

JAMES A. SNYDER is an environmental scientist who has been employed at OSI since December, 1989. He will be the secondary responsible individual. He received a diploma from the NBC (Nuclear, Biological and Chemical) officer/enlisted 80 hour course from the post NBC school at Ft. Meade, Maryland in July, 1980. This course covered the physics of radioactive decay, exposure dose determination and calculations, operation and theory of radiation detection devices, techniques for field protection and decontamination. He performed calibrations of personal dosimeters using standard

radioactive (approximately 1 millicurie) sources. He has installed and removed sealed 15 millicurie ECD modules from gas chromatographs during the course of his employment at OSI. He received a Bachelor of Arts degree in biological sciences (1986) from Mount Vernon Nazarene College, Mount Vernon, Ohio.

**Item 8:** Training for individuals working in or frequenting restricted areas:

A training course will be given by Richard E. Herrold instructing individuals working in, or frequenting any portion of the restricted area, concerning the storage, transfer or any other use of radioactive materials. Individuals shall be instructed in the basic principles and fundamentals of radiation safety and good safety practices related to OSI's use of radioactive materials, the purpose for which radiation detection instruments will be used, a review of OSI's operating, safety and emergency procedures, specific instruction in precautions and procedures to be used to minimize any exposure to radiation and radioactive materials, health protection problems associated with exposure to radioactive materials, proper techniques for determining the amount of radioactivity and decontamination techniques.

Only individuals who complete the course will be allowed to perform maintenance or repair operations. Attendance and completion of the course shall be documented.

**Item 9:** Facilities and equipment:

GAS CHROMATOGRAPH OPERATION During normal operations, exhaust from the detector cells containing licensed material shall be vented through a laboratory fume hood or other suitable means designed to reduce potential exposure to personnel to the lowest practicable level.

"HOT" LABORATORY The cleaning and handling of opened ECD cells shall be performed only in the restricted "hot" laboratory which will be identified with appropriate placards. An annotated drawing is enclosed as exhibit A. This room will also contain a "hot sink" designated for the disposal of liquid waste. The room shall only be accessible to the person authorized to clean the cells. The room will be locked when an authorized person is not present. The locked door opens into a storage area. This room will serve as the calibration source storage facility, when the calibration source is not in use. Sealed ECD cells that are not installed in a gas chromatograph will be stored on shelves in this room. Packages containing leak test samples will be opened in this room. The liquid scintillation vials will be prepared for counting in this room. The room shall have available a sheet of Plexiglass 24" x 24" x 1/8" to act as a shield when the ECD cells are opened for service. Special tools recommended by the manufacturers to perform cleaning and maintenance on ECD cells shall be available in this room. Gloves shall be worn when handling exposed cells, performing leak tests or handling unquantitated leak test samples.

LIQUID SCINTILLATION COUNTING Quantitation of radioactivity may be performed by the use of a liquid scintillation counter (LSC) located at OSI. The LSC will be located in the storage area adjacent to the restricted hot laboratory. OSI may perform quantitation of radioactivity in the form of Nickel-63 by LSC counting for customers who pay for such a service. Quantitation of radioactivity may also be performed by an NRC authorized company, such as Nuclear Radiation Developments, Inc., Grand Island, NY or National Leak Test Center, N. Tonawanda, NY. The LSC shall be located in a storage area adjacent to the restricted "hot" laboratory. Gas Chromatographs which have installed ECD cells shall either be stored in the

shipping and receiving area of OSI, in the storage area where the LSC is, or the GC's will be located in a laboratory, if they are in use.

Item 10: Radiation safety program:

PERSONNEL MONITORING EQUIPMENT Since the radiation source is nickel-63, the use of personnel monitoring devices is not required.

RADIATION DETECTION INSTRUMENTS Since the radiation source is nickel-63, the use of survey meter is not required. The radiation detection instrument available for use in performing leak-test services will be a liquid scintillation counting system. One such instrument will be available. It will be used to detect low-energy β radiation. A system of this type should have a sensitivity range of down to $10^{-5}$ microcuries, which is 100 times more sensitive than required. This instrument will be used to perform analytical measurements of nickel-63. It would use an enclosed Cesium-137 "pea" to perform external standard automatic quench correction.

LEAK TESTING When returned from rental the ECD cells shall be treated as if they were leaking until determined otherwise. The cells will also be leak tested at the interval required by the manufacturer. The indication of the on-off mechanism will also be tested when leak testing occurs. The leak test certificate is enclosed (exhibit C). An prototype of the On-Site Instruments Nickel 63 Electron capture detector (radioactive leak) wipe test kit is enclosed (exhibit D).

If the cells are found to be leaking more than 0.005 microcuries of nickel-63, the use shall immediately be discontinued, and the director of the NRC office at 799 Roosevelt Road, Glenn Ellyn, IL 60137, shall be notified in a report containing a brief description of the event and the remedial action taken. Consultation with the manufacturer would occur to determine what corrective action should be taken, which may include the decommissioning of the cell by returning it to the manufacturer.

If a customer's cell is determined to be leaking, OSI will immediately contact (by telephone if possible) the person who submitted the samples. The customer will then exchange the cell, or the entire gas chromatograph system, with On-Site so that the customer's system is leak-free. The corrective action to be taken by OSI is described in the previous paragraph.

Leak test samples will be obtained as follows:

a) Disconnect the column from the ECD.
b) Wipe the inside and outside of the detector entrance fitting (including column and adapter connections) with a piece of filter paper.
c) Wipe the detector housing (outside case) with another filter paper.
d) Disconnect the exit tubing from the detector vent tube. Wipe the inside of the exit tubing with a third filter paper.
e) The tubing running from the detector vent tube to exhaust area shall be inspected.
f) The filter papers will be inserted into separate scintillation vials and cocktail will be added. The activity of the sample shall be quantitated by LSC counting at OSI or by a NRC authorized company.

Authorized individuals will perform the quantitation operations. Sample calculations of the conversion of the measurement data to microcuries (μCi) follows:

Counter % efficiency calculation

$$\frac{\text{Counts per minute (CPM) of standard material}}{\text{Disintegrations per minute (DPM) of standard}} \times 100 = \%\ \text{efficiency}$$

efficiency conversion

$$\frac{\text{CPM of unknown}}{\%\ \text{efficiency}} = \text{DPM of unknown}$$

activity conversion

$$\frac{\text{DPM of unknown}}{2.22 \times 10^{6}\ \text{DPM}/\mu\text{Ci}} = \mu\text{Ci of unknown}$$

CELL USAGE, MAINTENANCE, REPAIR AND CLEANING Instructions contained in the manufacturer's manuals for the chromatography device will be followed.

Cleaning of the ECD cells shall be performed as described by the written procedures provided by the device manufacturer for each operation required. Cleaning may be performed by rinsing the sealed cells with an appropriate solvent such as methanol, water or hexane. Cleaning may be performed by physical abrasion of the cell surface to remove coated contamination such as visible oxides of the materials injected into the chromatograph. If the abrasion technique is required, it will be employed so as to ensure that the encapsulation of the nickel-63 is not disturbed. Other cleaning techniques may be used, if these are described by the manufacturer. The detailed description of the cleaning process will be provided by the manufacturers once OSI has received this license. The responsible individual(s) will receive training from the manufacturer(s) if necessary.

Laboratory gloves will be worn to limit extremity exposure while handling the opened cells. Labels or tags that are prohibited to be removed shall not be removed. The design of the cell shall not be modified.

LABORATORY SURVEYS Areas where ECD cells are opened will have will be surveyed by wipe test for contamination monthly. The wipe test result form is enclosed (exhibit E) All records of surveys shall be recorded in units of disintegrations per minute since regulations defining contamination are written in dpm/100 $cm^2$. Periods of "no use" must be documented, in the survey records, in lieu of wipes. If contamination is determined to be greater than 100 dpm/100 $cm^2$, the contaminated area will be washed with soap and water, with the wash solution disposed down the "hot" sink, and the area will be wiped.

HAND TO MOUTH PRECAUTIONS Smoking, eating, drinking or applying cosmetics shall be prohibited in all posted areas. Food preparation and storage is prohibited in any posted laboratory area.

HOT SINKS Hot sink records must be posted and kept up to date. Each discharge of radioactive material in this sink will be documented. "No use" periods of inactivity will be documented monthly.

OPERATING AND EMERGENCY PROCEDURES Personnel will be provided with operating and emergency procedures. These procedures shall include complete instructions for performing laboratory surveys and leak tests of ECD cells. Procedures will also be provided for cases of emergency where the ECD's are found to be leaking or emitting excessive radiation. These procedures will include notifying customers, preventing the spread of contamination, and means of obtaining professional assistance.

INSTRUMENT CALIBRATION Survey instruments are required to be calibrated annually. The calibration and efficiency of the LSC shall be checked monthly or when used for wipe or leak test quantitation, whichever is more frequent.

POSTING WARNING SIGNS All restricted areas are to be posted with appropriate caution signs and labels, as well as vessels containing radioactive materials.

**Item 11:** Waste management:

SOLID WASTE Solid waste from the cleaning of the ECD cells will be stored in specially marked trash receptacles. If liquid waste is generated, it shall be disposed in the "hot sink" or, if very high level, will be absorbed onto an appropriate sorbant, such as "Lockit" by JV Manufacturing, and disposed of as solid waste. Radioactive material in the form of solid waste will be transferred to a licensee specifically authorized to possess it.

LIQUID WASTE Biodegradable scintillation cocktail will be used for the quantitation of activity. A specially designated "hot sink" will be used for the disposal of scintillation cocktail. The amount of radioactive material discharged into the sewerage system will be recorded daily, and the total amount of discharge will not exceed 10 μCi per day. The gross quantity of radioactive material released into the sewerage system will not exceed 1 Curie per year.

If the measured activity is found to be low (< 0.0008 μCi/ml), the cocktail will be discharged into the municipal sewer system, and the counting vial will be discarded as normal non-radioactive waste. If the LSC vial is found to contain > 0.0008 μCi/ml, the cocktail will be diluted and discharged into the specially designated sink, and the vial will be placed into solid radioactive waste.

**Item 12:** Licensee fee:

Fee category 3P

Amount Enclosed $ 120.00

This fee was mailed with the original application dated February 19, 1990.

MAY 18 1990

On-Site Instruments, Inc.
ATTN: Richard E. Herrold
Analytical Systems Manager
689 N. James Road
Columbus, OH 43219-1837

Gentlemen:

Enclosed is Amendment No. 02 renewing your NRC License No. 34-24437-01 in accordance with your request.

After review of your license we have determined that the type, form, and quantity of material authorized does not warrant the development and submittal of a decommissioning funding plan, or certification of financial assurance as described in 10 CFR 30.35 (enclosed). However, this does not relieve you of record keeping requirements relative to information which the Commission considers important to decommissioning. Therefore, we have added License Condition 21. requiring that you maintain such records as set forth in Section 30.35(g).

Please review the enclosed document carefully and be sure that you understand all conditions. You must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Possess radioactive material only in the quantity and form indicated in your license.

3. Use radioactive material only for the purpose(s) indicated in your license.

4. Notify NRC in writing of any change in mailing address.

5. Request and obtain appropriate amendment if you plan to change ownership of your organization, change locations of radioactive material, or make any other changes in your facility or program which are contrary to your license conditions or representations made in your license application and any supplemental correspondence with NRC. Any amendment request should be accompanied by the appropriate fee specified in 10 CFR Part 170.

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6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

7. Request termination of your license if you plan to permanently discontinue activities involving radioactive material prior to your expiration date.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations in your license application will result in enforcement action against you in accordance with the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

If you have any questions or require clarification of any of the above stated information, contact us at (708) 790-5625.

Sincerely,

Original Signed By
William J. Adam, Ph.D.
Materials Licensing Section

Enclosures:
1. 10 CFR Parts 19, 20, 30, 31, 32, 71 and 170
2. 10 CFR Part 2, Appendix C
3. NRC-3

RIII

Adam/mj
05/ /90

NRC FORM 374
(10-89)

U.S. NUCLEAR REGULATORY COMMISSION



# MATERIALS LICENSE

Amendment No. 02

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, 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.

| Licensee | |
|---|---|
| 1. On-Site Instruments, Inc. | In accordance with letter dated February 19, 1990 |
| 2. 689 N. James Road<br>Columbus, OH 43219-1837 | 3. License number 34-24437-01 is renewed in its entirety to read as follows: |
| | 4. Expiration date: July 31, 1995 |
| | 5. Docket or Reference No.: 030-28575 |

| 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. Nickel-63 | A. Foil sources (Hewlett-Packard Detector Cell Model No. 19233 or Varian Detector Cell Model No. 02-001972-00) | A. No single detector cell to exceed 15 millicuries 5 curies total |
| B. Nickel-63 | B. Leak test samples | B. See Item 9.B., below |

9. Authorized Use:

A. For possession incident to cleaning and repair of detector cells. Redistribution of detector cells to individuals specifically licensed and to individuals generally licensed pursuant to 10 CFR 31.5, in accordance with 10 CFR 32.51.

B. For possession incident to the collection and analysis of leak test samples as a service to individuals specifically licensed and individuals generally licensed pursuant to 10 CFR 31.5.

## CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 689 North James Road, Columbus, Ohio.

11. Licensed material shall be used by, or under the supervision of, Richard E. Herrold or James A. Snyder.

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COPY

**MATERIALS LICENSE**
SUPPLEMENTARY SHEET

License number
34-24437-01
Docket or Reference number
030-28575

Amendment No. 02

12. A. (1) Each sealed source acquired from another person and 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 contamination and/or leakage before use. In the absence of a certificate from a transfer or indicting that a test has been made within 6 months before the transfer, a sealed source received from another person shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting materials or 10 microcuries or less of alpha emitting material.

B. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to use or transfer as a sealed source. If the inspection or test reveals any construction defects or 0.005 microcurie or greater of contamination, the source shall not be used or transferred as a sealed source until it has been repaired, decontaminated and retested.

C. 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 except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed 3 months.

D. 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 or semipermanently 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. Records may be disposed of following Commission inspection.

E. If the test required by Subsection A. or C. of this condition 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 date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, ATTN: Chief, Nuclear Materials Safety Branch, describing the equipment involved, the test results, and the corrective action taken.

License number 34-24437-01

Docket or Reference number 030-28575

Amendment No. 02

**MATERIALS LICENSE**
SUPPLEMENTARY SHEET

13. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.

14. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

15. Licensed material shall not be used in or on human beings.

16. The licensee shall conduct a physical inventory every six (6) months to account for all foil sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of the foil sources and the date of the inventory.

17. The licensee shall furnish to each general licensee to whom he transfers a device pursuant to this license, a copy of Section 31.5, 10 CFR 31; Sections 30.34 and 30.51 through 30.63, 10 CFR 30; Section 20.402 and 20.403, 10 CFR 20, and Appendix D, 10 CFR 20.

18. The licensee shall maintain records of information important to safe and effective decommissioning at 689 North James Road, Columbus, Ohio per the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.

19. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

    A. Applications dated February 19, 1990 and May 11, 1990; and

    B. Letters dated February 19, 1990 and May 19, 1990 (with attachments).

For the U.S. Nuclear Regulatory Commission

Original Signed
By William J. Adam, Ph.D.
Materials Licensing Section, Region III

Date: May 18, 1990

COPY

On-Site Instruments

ENVIRORENTAL™

May 19th, 1990

Richard E. Herrold
(614) 237-3022
Analytical Systems Manager

William J. Adam, Ph. D.
United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Dr. Adam:

Thank you for your careful review of our license renewal application, dated February 19th, 1990. This response is made in reference to control number 88754. I have decided to use a format whereby I shall change the relevant sections in the items that you mentioned, then resubmit the total application.

I shall however review my revisions in regards to your eleven comments as follows:

1) I have enclosed a diagram of the hot lab (exhibit A), as it will be used. I have also expanded the text in Item 9 to include topics covered in the regulatory guide.

2) The rental customers of On-Site Instruments (OSI) shall be generally licensed to possess the sealed detector cells. It is the responsibility of OSI to instruct its rental customers of the requirements described in 10 CFR §31.5, concerning proper labeling, leak testing and record keeping, reporting of failure or damage, abandonment, export and transfer. Hewlett-Packard's publication: "Information for General Licensees" will be provided to customers for their information (exhibit B).

Persons who purchase or lease the cells shall be required to confirm in writing their conformance to appropriate regulations.

3) Mr. Cheetham shall not be one of the individuals authorized to service the electron capture cells. James A. Snyder will be the other responsible party with Richard E. Herrold. Mr. Snyder's experience is described in Item 7.

4) Item 10, the cell usage, maintenance, repair and cleaning section has been revised.

5) The shipping containers which will be used for the transport and shipment of the byproduct materials shall be those provided by the manufacturer, or so as to be considered Type A, as described in 49 CFR §173.412. These boxes have the following statements printed on the outside: "On-Site Instruments, Inc. 689 N. James Rd. Columbus, Ohio 43219-1837, 1-800-766-7483. This package conforms to the conditions and limitations specified in 49 CFR 173.422 for excepted radioactive material instruments and articles, UN2911".

A/18

RECEIVED
MAY 14 1990
REGION III

689 North James Road Columbus, Ohio 43219-1837
(614) 237-3022 1-800-551-2783 FAX: (614) 237-1914

On-Site would be exempt from all requirements of 10 CFR §71, as specified by 49 CFR§ 173.421, with respect to shipment or carriage of the package, since the maximum amount of byproduct contained in one shipping container would be less than, or equal to, 30 millicuries, a value much less than the limit specified in Table A-1 in 10 CFR 71 §App. A (1) for nickel-63.

6) The radiation detection instrument is described in the facilities and equipment section in item 9.

7) On-Site will acquire a standard sample of nickel-63 from a supplier such as Beckman Instruments, Inc. to use to calibrate the liquid scintillation counter (LSC). On-Site will also acquire a Cesium-137, 40 µCi "pea" to be permanently installed in the liquid scintillation counter. The "pea" will be used with the automatic quench correction feature of the LSC. This is described in item 10, in the section on instrument calibration, as well as in item 5.

8) On-Site will, on a yearly basis, request from the manufacturers up-to-date instructions for the cleaning and leak testing of detector cells. This is described in item 10, in the cell usage, maintenance, repair and cleaning section. I plan to go to the Avondale, Pennsylvania ECD plant of Hewlett-Packard Co. to receive training on the maintenance of ECD cells.

9) A sample of our leak test certificate is enclosed (exhibit C), and is referenced to in item 10, leak testing section. Also, the form to report the results of the wipe test is enclosed (exhibit E).

10) Item 11 has been revised to not include the term *de minimis*.

11) On-Site's total possession limit is listed in item 5.

I have enclosed two copies of the application.

Please accept this revised renewal application, and be sure to contact me if you have any questions.

Sincerely,

Richard E. Herrold
Analytical Systems Manager

# REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
## SAFETY EVALUATION OF DEVICE

NO: TX634D169B DATE: February 14, 1992 PAGE 1 OF 5

DEVICE TYPE: X-ray Analyzer

MODEL: 9290

| # of pages ▶ 5 | |
|---|---|
| To Loren Hueter | From Floyd R. Hamilton |
| Co. USNRC | Co. Texas BRC |
| Dept. Region 3 | Phone # (512) 834-6688 |
| Fax # 708 790-5665 | Fax # (512) 834-6690 |

MANUFACTURER/DISTRIBUTOR: Texas Nuclear Products
TN Technologies, Inc.
2555 North IH-35
Post Office Box 800
Round Rock, Texas 78680
(512) 388-9287

SEALED SOURCE MODEL DESIGNATION:

| | |
|---|---|
| Fe-55 | TN Model 696942 |
| Cd-109 | TN Model 696782 |
| Cm-244 | TN Model 57242B |
| Am-241 | TN Model 696280 |

| ISOTOPE: | MAXIMUM ACTIVITY: |
|---|---|
| Fe-55 | 100 mCi |
| Cd-109 | 10 mCi |
| Cm-244 | 100 mCi |
| Am-241 | 10 mCi |

LEAK TEST FREQUENCY: 6 months

PRINCIPAL USE: X-ray fluorescence

CUSTOM DEVICE: ___YES X NO

CUSTOM USER:

A/19

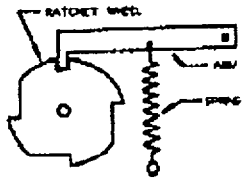
# REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
## SAFETY EVALUATION OF DEVICE

NO: TX634D169B DATE: February 14, 1992 

DEVICE TYPE: X-ray Analyzer

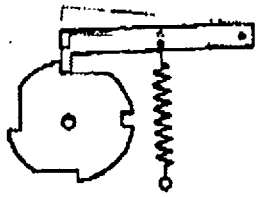
DESCRIPTION: The Model 9290 is an x-ray fluorescence analyzer probe used for general purpose elemental analysis. Connected by cable to a portable, battery-powered electronics package the unit becomes the "Quantos FP X-ray Analyzer", if sold by TN Technologies, and the "Spectrace 9000", if sold by Spectrace Instruments. The radioactive sources in the probe provide x-ray excitation of the sample and resultant fluorescent x-rays are detected by the probe. This information is received by the electronics package, which analyzes it and displays the analysis results. This device may be used in the field or in a laboratory environment.

The 9290 probe is housed in an aluminum case, approximately three inches wide by five inches long by six inches high. A handle attached to the back brings the total height to about nine inches. Total weight of the probe is approximately four pounds. The case houses the source movement mechanism, x-ray detector and can contain as many as three of the sources listed on the first page of this summary.



HOME POSITION

There are four positions available on the source hub. The sources are mounted at 90° to each other with the fourth position having no source and being the "OFF" or safe position. This hub is mounted to a drive shaft which has a ratchet wheel attached. Before the ratchet wheel (wheel) moves from one position to another, a ratchet arm (arm) must be raised slightly to allow the wheel to move clockwise. When the wheel reaches the next position, the arm engages and stops the clockwise movement of the wheel.


POSITION 1

If the wheel is in any position other than the "OFF" or safe position and power is lost for any reason, a large capacitor in the power circuit drives the wheel ratchet in a counter-clockwise direction until it reaches the "OFF" or safe position where the arm drops into the double-sided notch there. Because a lack of power actuates this safety mechanism, disconnecting the probe from the electronics during operation for any reason will always result in the radioactive sources being moved to their safe and shielded positions.

If the probe is used in a laboratory setting, a bench mount is supplied to allow the probe to be used in a fixed position. A sample cover is also supplied (See DIAGRAM section below) to cover analysis area during exposure of the source.

If for some unforeseen reason the probe fails in a manner which leaves one of the three sources in the exposed position, a lead lined cover is also supplied to safely shield the source while it is being shipped back to TN Technologies.

When a source moves into the exposed position, a double beep is sounded and a warning message is displayed on the screen of the electronics display. In addition, a high intensity led flashes on the probe to indicate that a source is exposed.

LABELING: The 9290 probe will have three labels. The first contains a standard trefoil. The second provides information concerning the isotopes, activities and assay dates of the radioactive sources present in the probe. Also, this label provides the model number, serial number of the probe and the manufacturer's name. A third label contains the statements, "CAUTION - RADIOACTIVE MATERIAL" and, "REMOVAL OF THIS LABEL PROHIBITED". **If this device is distributed as a generally licensed device, an additional label is added which provides the information prescribed in TRCR 41.28(d)(1)(iii) and/or 10 CFR 31.51(a)(3)(iii).**

# REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
## SAFETY EVALUATION OF DEVICE



DEVICE TYPE: X-ray Analyzer

CONDITIONS OF NORMAL USE: The 9290 is designed to provide elemental analysis of drill cuttings, ores, mill products plating solutions, alloys, flame retardant materials, catalysts, oil, wood treatment chemicals, etc. It is also designed to analyze environmental samples for contaminants such as chromium, nickel, copper, arsenic, mercury, lead, cadmium and related metals. It can also determine film/coating thicknesses.

It is designed to be used in environmental conditions compatible with man and is not, therefore, capable of withstanding the extreme conditions present during a fire and/or explosion. The sealed source will, however, probably survive such conditions. Construction criteria for each sealed source was provided to the source manufacturer in which American National Standards Institute (ANSI) classifications were provided. The ANSI classification for Fe-55 was 77C33232, for Cd-109 was 77C44243, for Am-241 was 77C64545, and for Cm-244 was 77C64344.

PROTOTYPE TESTING: As stated above, the Model 9290 was designed for environments compatible with man. This environment includes, temperatures from -10° C to 60° C, vibration/acceleration forces of 1 G, and atmospheric pressure. The source mechanism completed approximately 400,000 cycles (about eight years of normal use at 50 analyses per day) with no significant wear. The manufacturer estimates that the expected useful life of the mechanism without a failure of the source mechanism is approximately 20 years. In addition to the cycling tests, the probe was dropped on a hard surface several times without failure of the source mechanism or shielding.

EXTERNAL RADIATION LEVELS: **Misuse of the 9290 by deliberately initiating an analysis sequence with no sample in place would produce high exposure rates on the skin surface only. Because of the energies of the radiations involved, actual penetrating doses will not occur.** With no sample in place measured air exposure rates are as shown in the figure below:

| ISOTOPE | SURFACE | 12" DISTANCE |
|---|---|---|
| Fe-55(100 mCi) | 375.0 R/hr | 188 mR/hr |
| Cm-244(100 mCi) | 9.6 R/hr | 10 mR/hr |
| Cd-109(10 mCi) | 13.0 R/hr | 14 mR/hr |
| Am-241(10 mCi) | 1.0 R/hr | 1 mR/hr |

**These are air exposure rates only. Because the energies of the various x-rays of these isotopes are not considered *penetrating*, the corresponding tissue exposure rates are insignificant or non-existant.**

# REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
## SAFETY EVALUATION OF DEVICE

NO: TX034D169B DATE: February 14, 1992 

DEVICE TYPE: X-ray Analyzer

QUALITY ASSURANCE AND CONTROL: Strict adherence to original design specifications and close inspection and testing of each completed device are required by the manufacturer's procedures. Any deviation below these specifications or inadequate performance during testing will cause the device to be rejected. Each source is leak tested within thirty days of distribution and appropriate leak test certificates are furnished to the customer.

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE:

1. This device may be distributed to specific licensees or general licensees.
2. Repair, maintenance and source exchange, if necessary, must be performed by the manufacturer or other person(s) specifically licensed to perform such services by the United States Nuclear Regulatory Commission, an Agreement State or a Licensing State.
3. Devices must be returned to TN Technologies for disposal.
4. Personnel monitoring for extremities is recommended. Although exposures are very low when the device is used properly, the potential exists for very large extremity doses.
5. Although no specific radiation safety instruction is required to properly operate this device, the manufacturer will provide specific training in the operation of the device and in radiation safety. The customer is provided with a comprehensive instruction manual.

SUMMARY: **Because of the energies of the x-rays emitted from the isotopes involved little or no penetrating exposures are expected while operating this device.**

REFERENCES: This summary was prepared with the aid of TN Technologies, Inc. letter dated October 4, 1991, December 17, 1991 and all associated drawings, documents and procedures.

DATE: February 14, 1992 REVIEWED BY: [signature]

DATE: February 14, 1992 REVIEWED BY: [signature]

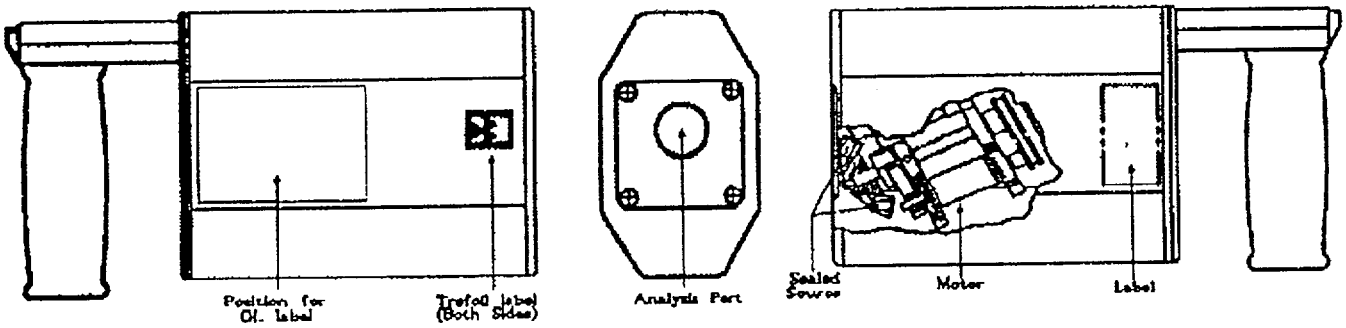
ISSUING AGENCY: Texas Department of Health
Bureau of Radiation Control

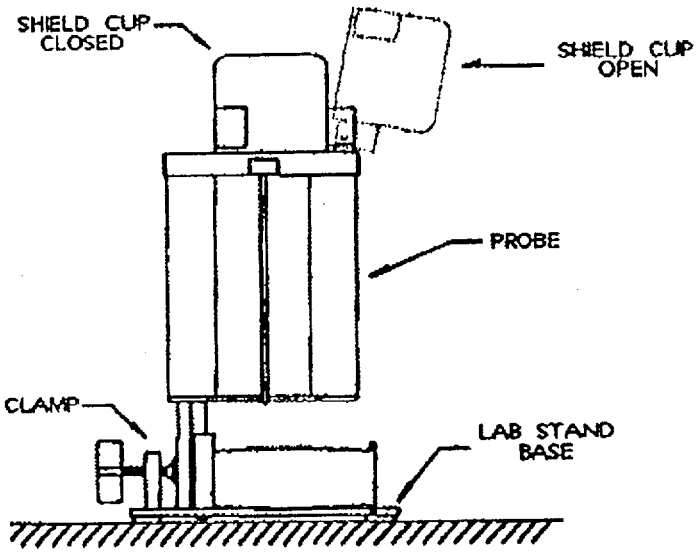
# REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
## SAFETY EVALUATION OF DEVICE

NO: TX034D169B DATE: February 14, 1992 

DEVICE TYPE: X-ray Analyzer

DIAGRAM:



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

APR 27 1992

On-Site Instruments, Inc.
Attn: Jim Snyder
Environmental Scientist
689 North James Road
Columbus, OH 43219-1837

Gentlemen:

This refers to your letter dated March 26, 1992, requesting an amendment to Materials License 34-24437-01.

Therefore, an amendment fee of $380 is required as specified in fee Category 3P of §170.31, 10 CFR 170, which went into effect August 9, 1991. A copy of the July 10, 1991, Federal Register notice regarding the revisions to the Commission's license and annual fee regulations (10 CFR 170 and 10 CFR 171) is enclosed.

Payment of the $380 fee should be made to the U.S. Nuclear Regulatory Commission and mailed to the following address:

U.S. Nuclear Regulatory Commission
ATTN: Cheryl Phillips
License Fee and Debt Collection Branch, OC/DAF
Mail Stop MNBB 4503
Washington, D.C. 20555

Your application will be processed by the Region III Licensing staff located at 799 Roosevelt Road, Glen Ellyn, Illinois 60137. The fee, however, is required prior to issuance of the amendment. When submitting the fee, please refer to CONTROL NUMBER 321394.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we shall assume that you do not wish to pursue your application and will void this action.

Sincerely,

Cheryl Phillips
License Fee and Debt Collection Branch
Division of Accounting and Finance
Office of the Controller

Enclosure:
July 10, 1991, Federal Register notice

cc: Region III

A/20

On-Site Instruments

- Rent
- Lease
- Purchase

ENVIRORENTAL™

May 20, 1992

Loren Hueter
Materials Licence Section
Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL.
60137

Dear Mr. Hueter:

RE: May 1, 1992 Application Letter - REF# 321394

In response to our conversation regarding expedition the approval of the new Hewlett Packard Nickel 63 sources (listed as item #5), I am forwarding this letter to answer your points of concern.

The Hewlett Packard Detector Cell G1223A will be used in accordance with all restrictions and regulations referenced in our current licence on file with the NRC. Additionally we will be complying with all restrictions and conditions listed in accordance with our previously approved application. Lastly, we will not be exceeding the possession limit of 15 millicurries per source/ 5 curries total as listed in item 8A.

Secondly, I need to separate and expedite approval of the Hewlett Packard Nickel 63 source (item #5) from the remaining items on the May 1, 1992 application letter. I will forward the additional information requested on the other device items on that application.
Let me know if there is anything I can do to assist in the expedition of the Hewlett Packard GC source.

Thank You for your help.

Sincerely,

Robert A. Johnson
Senior Analytical Manager
On-Site Instruments

RECEIVED

MAY 27 1992

REGION III

A/21

MAY 27 1992

• Irvine, CA • Detroit, MI • Pittsburgh, PA • Columbus, OH • Denver, CO •
3375 Scott Boulevard • Santa Clara, CA 95054
(408) 986-9791 • Fax (408) 986-9794

On-Site Instruments

- Rent
- Lease
- Purchase

ENVIRORENTAL™

May 20, 1992

Loren Hueter
Materials Licence Section
Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL
60137

Dear Mr. Hueter:

RE: May 1, 1992 Application Letter - REF# 321394

In response to our conversation regarding expedition the approval of the new Hewlett Packard Nickel 63 sources (listed as item #5), I am forwarding this letter to answer your points of concern.

The Hewlett Packard Detector Cell G1223A will be used in accordance with all restrictions and regulations referenced in our current licence on file with the NRC. Additionally we will be complying with all restrictions and conditions listed in accordance with our previously approved application. Lastly, we will not be exceeding the possession limit of 15 millicuries per source/ 5 curries total as listed in item 8A.

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Let me know if there is anything I can do to assist in the expedition of the Hewlett Packard GC source.

Thank You for your help.

Sincerely,

Robert A. Johnson
Senior Analytical Manager
On-Site Instruments

• Irvine, CA • Detroit, MI • Pittsburgh, PA • Columbus, OH • Denver, CO •
3375 Scott Boulevard • Santa Clara, CA 95054
(408) 986-9791 • Fax (408) 986-9794

A/22

# CONVERSATION RECORD

TIME

DATE 5-20-92

TYPE ☐ VISIT ☐ CONFERENCE ☑ TELEPHONE ☑ INCOMING ☐ OUTGOING

Location of Visit/Conference:

| ROUTING NAME/SYMBOL | INT |
|---|---|
| | |

| NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU | ORGANIZATION (Office, dept., bureau, etc.) | TELEPHONE NO. |
|---|---|---|
| Bob Johnson | On-Site Instruments | 408-986-9791 |

SUBJECT
CN 321394

SUMMARY
Bob called to express their urgent need to expedite a part of their amendment request, in particular the Hewlett Packard Model G1223A Electron Capture Detector (ECD). I informed him that that device was the only one of the 9 devices requested by them that I could find listed in the Sealed Source and Device Registry (SSDR).
I requested by FAX or letter (followed by hard copy) requesting this part be acted on separately at this time and to address following issues regarding its possession and use. That the new H.P. ECD will be used in same manner as described in application and referenced documents and license conditions of current license and that current possession limit will remain unchanged. He agreed to do so.

ACTION REQUIRED

| NAME OF PERSON DOCUMENTING CONVERSATION | SIGNATURE | DATE |
|---|---|---|
| | Lorna Hunter | 5-20-92 |

ACTION TAKEN

| SIGNATURE | TITLE | DATE |
|---|---|---|
| | | |

On-Site Instruments

May 1, 1992

Jim Snyder
Environmental Scientist

United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear reviewer;

This is an addendum to amendment 321394 to license 34-24437-01 currently being held for payment in the fees branch. *Please expedite this review*. We need a copy of the permission to finish the aquisition of detectors from HP. This letter is to inform you of the need to update the listing of sources we are using related to CFR, Title 10, Chapter 1, §31.5, paragraph (c)(9)(i). As stated in a letter of December 11th, 1989, we rent, lease and sell ECD's across the U.S. The HP ECD is a $Ni^{63}$ source of 15mCi. We also are renting field portable XRF with $FE^{55}$, $Cm^{244}$, $Cd^{109}$, and $Am^{241}$ sources. We are receiving new model ECD's from HP. All new detectors are listed below. We operate with license number 34-24437-01. Please add the sources below to our license.

1.) source from Amersham: $Am^{241}$ with 30mCi maximum: cell # AMC-D2
2.) source from Amersham: $Cm^{244}$ with 60 mCi maximum: cell # MONEL X130/7
3.) source from Amersham: $Cd^{109}$ with 20 mCi maximum: cell # CUC-D1
4.) source from Isotope Products: $Cd^{109}$ with 20 mCi maximum: cell # XFB
5.) source from Amersham: $Ni^{63}$ with 15 mCi maximum: cell # G1223A
6.) source from Amersham: $Ni^{63}$ with 15 mCi maximum: cell # 5164.1
7.) source from Amersham built to TN specs: $Fe^{55}$ with 50 mCi maximum: cell # 696-942
8.) source from Amersham built to TN specs: $Cd^{109}$ with 5 mCi maximum: cell # 696-782
9.) source from Amersham built to TN specs: $Am^{241}$ with 5 mCi maximum: cell # 696-280

Sources listed in items 1.) and 2.) are located in DOPS probes and SSPS probes from Outokumpu Electronics. Sources listed in item 3.) and 4.) are located in SSPS probes and SAPS probes from Outokumpu Electronics. Sources listed in item 5.) are located in ECDs from Hewlett Packard. The source listed in item 6.) is located in an ECD from Valco Instruments. Items 7.), 8.), and 9.) are sources located in the Spectrace 9000 XRF probe from Texas Nuclear.

Sincerely;

Jim Snyder
Environmental Scientist

Rose Johnson
405-386-2771
Call & FAX when sign

689 North James Road Columbus Ohio 43219-1837

(614) 237-3022 1-800-551-2783 FAX: (614) 237-1914

On-Site Instruments

030-28575

ENVIRORENTAL™

March 26, 1992

Jim Snyder
Environmental Scientist

Director of Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Director;

This letter is to inform you of the need to update the listing of sources we are using related to CFR, Title 10, Chapter 1, §31.5, paragraph (c)(9)(i). As stated in a letter of December 11th, 1989, we rent, lease and sell ECD's across the U.S. The HP ECD is a $Ni^{63}$ source of 15mCi. We also are renting field portable XRF with $Cm^{244}$, $Cd^{109}$, and $Am^{241}$ sources. We are receiving new model ECD's from HP. All new detectors are listed below. We operate with license number 34-24437-01. Please add the sources below to our license.

1.) source from Amersham: $Am^{241}$ with 30mCi maximum: cell # AMC-D2

2.) source from Amersham: $Cm^{244}$ with 60 mCi maximum: cell # MONEL X130/7

3.) source from Amersham: $Cd^{109}$ with 20 mCi maximum: cell # CUC-D1

4.) source from Isotope Products: $Cd^{109}$ with 20 mCi maximum: cell # XFB

5.) source from Amersham: $Ni^{63}$ with 15 mCi maximum: cell # G1223A

6.) source from Amersham: $Ni^{63}$ with 15 mCi maximum: cell # 5164.1

Sources listed in items 1.) and 2.) are located in DOPS probes and SSPS probes from Outokumpu Electronics. Sources listed in item 3.) and 4.) are located in SSPS probes and SAPS probes from Outokumpu Electronics. Sources listed in item 5.) are located in ECDs from Hewlett Packard. The source listed in item 6.) is located in an ECD from Valco Instruments.

Sincerely;

Jim Snyder

Jim Snyder
Environmental Scientist

RECD
APR 13 1992

321394

689 North James Road Columbus, Ohio 43219-1837

(614) 237-3022 1-800-551-2783 FAX: (614) 237-1914

LICENSE FILE
34-24437-01

on-site instruments

ENVIRORENTAL

April 14, 1992

Jim Snyder
Environmental Scientist

United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear reviewer;

*Please expedite this review*. We need a copy of the permission to finish the aquisition of detectors from HP. This letter is to inform you of the need to update the listing of sources we are using related to CFR, Title 10, Chapter 1, §31.5, paragraph (c)(9)(i). As stated in a letter of December 11th, 1989, we rent, lease and sell ECD's across the U.S. The HP ECD is a $Ni^{63}$ source of 15mCi. We also are renting field portable XRF with $Cm^{244}$, $Cd^{109}$, and $Am^{241}$ sources. We are receiving new model ECD's from HP. All new detectors are listed below. We operate with license number 34-24437-01. Please add the sources below to our license.

1.) source from Amersham: $Am^{241}$ with 30mCi maximum: cell # AMC-D2

2.) source from Amersham: $Cm^{244}$ with 60 mCi maximum: cell # MONEL X130/7

3.) source from Amersham: $Cd^{109}$ with 20 mCi maximum: cell # CUC-D1

4.) source from Isotope Products: $Cd^{109}$ with 20 mCi maximum: cell # XFB

5.) source from Amersham: $Ni^{63}$ with 15 mCi maximum: cell # G1223A

6.) source from Amersham: $Ni^{63}$ with 15 mCi maximum: cell # 5164.1

Sources listed in items 1.) and 2.) are located in DOPS probes and SSPS probes from Outokumpu Electronics. Sources listed in item 3.) and 4.) are located in SSPS probes and SAPS probes from Outokumpu Electronics. Sources listed in item 5.) are located in ECDs from Hewlett Packard. The source listed in item 6.) is located in an ECD from Valco Instruments.

Sincerely;

Jim Snyder
Environmental Scientist

RECEIVED
APR 16 1992
REGION III

APR 16 1992

689 North James Road Columbus, Ohio 43219-1837
(614) 237-3022 1-800-551-2783 FAX (614) 237-1914

MAY 2 9 1992

On-Site Instruments, Inc.
ATTN: Jim Snyder
689 North James Road
Columbus, OH 43219

Dear Mr. Snyder:

Enclosed is Amendment No. 03 to your NRC License No. 34-24437-01 in accordance with your request.

Please note that in order to expedite a part of your amendment request, in accord with your May 20, 1992 letter, this amendment only adds to the license one of the nine sources requested in your May 1, 1992 letter. The new source/device authorized by this amendment is the Hewlett-Packard detector cell Model No. G1223A.

The sealed source/device combinations you are applying for must be approved by the NRC Sealed Source and Device Registry (SSDR) prior to being authorized on a Specific License. We are unable to confirm the Outokumpu Electronics DOPS probes, SSPS probes and SAPS probes containing sealed sources of Am-241, Cm-244 or Cd-109, have been approved by the SSDR. Also, we are unable to confirm the Valco Instruments ECD detectors containing Ni-63 foils have been approved by the SSDR. Also, we are unable to confirm the Spectrace 9000 XRF probes containing sealed sources of Fe-55, Cd-109 and Am-241 have been approved by the SSDR. Therefore, it is necessary for you to submit documentation that these sealed sources have been approved by the SSDR. The manufacturer may be of assistance in this matter. Please note it will also be necessary to submit other information to support your application for possession/use of these devices, similar to that submitted for the Ni-63 detector cells. This will include information on possession limits for each device, any services you plan to perform, training for such services, procedures for each service, dosimetry, survey meters, wipe test counting instrumentation, standard calibration sources, wipe test kit instructions, Leak Test Certificates, transportation of devices, etc., if applicable.

If you wish to pursue this matter please indicate in your response that it is additional information to Control No. 321394.

Please review the enclosed document carefully and be sure that you understand all conditions. You must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

21394

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Possess radioactive material only in the quantity and form indicated in your license.

3. Use radioactive material only for the purpose(s) indicated in your license.

4. Notify NRC in writing of any change in mailing address.

5. Request and obtain appropriate amendment if you plan to change ownership of your organization, change locations of radioactive material, or make any other changes in your facility or program which are contrary to your license conditions or representations made in your license application and any supplemental correspondence with NRC. Any amendment request should be accompanied by the appropriate fee specified in 10 CFR Part 170.

6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

7. Request termination of your license if you plan to permanently discontinue activities involving radioactive material prior to your expiration date.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations in your license application will result in enforcement action against you in accordance with the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

If you have any questions or require clarification of any of the above stated information, contact us at (708) 790-5625.

Sincerely,

Original Signed By
Loren J. Hueter
Materials Licensing Section

Enclosure: Amendment No. 03

RIII

Hueter/jaw
05/ /92

On-Site Instruments

- Rent
- Lease
- Purchase

Facsimile Transmission

ENVIRORENTAL™

1 Pages(Including cover sheet)

Date: 5-20-92

To: MR. LOREN HEUTER

Company: NUCLEAR REGULATORY COMMISSION

Facsimile Number: (708) 790-5665

From: ROBERT A. JOHNSON

Message: I HOPE THIS LETTER IS SUFFICIENT FOR YOUR NEEDS. IF YOU REQUIRE ANYTHING FURTHER, PLEASE CALL ME AT (408)986-9791 THANK YOU.

On-Site Instruments
3375 Scott Blvd., Ste.#432 Santa Clara, CA 95054
To Order: 408/986-9791 Fax: 408/986-9794

Distribution Facilities:
Ohio, Michigan, Colorado, California, Pennsylvania

APPENDIX A

Checklist for Decommissioning Financial Assurance

1. Applicant Information:

Name: On-Site Instruments, Inc.

Licensing Action: Amendment No. 03

If this checklist has been completed for this license previously, does the application request a possession limit change?

Yes (proceed to step 2) ___
No (go to step 8) ___
Checklist never completed before (proceed to step 2) ✓

2. Applicable Regulations: Part 30 ✓ Part 40 ___ Part 70 ___

Note: If more than one Part is applicable to the license, evaluate the requirements in each Part separately. If financial assurance is required, the applicant must comply with the combined requirements of all applicable Parts.

3. Form of material authorized:

Sealed byproduct material with half-life >120 days ___
Unsealed byproduct material with half-life >120 days ___
Readily dispersible source material ___
Unsealed special nuclear material ___
None of the above (no financial assurance required, go to step 8) ___

Note: If more than one form is authorized, evaluate the possession limit thresholds for each. If more than one form exceeds a threshold, the amount of financial assurance required for each form should be summed to determine the total financial assurance required.

4. Overall possession limit in license? Yes ✓ No ___

If no and the licensee will not agree to a limiting condition, a Decommissioning Funding Plan (DFP) is mandatory (go to step 6). If yes, analyze the possession limits in step 5.

5. Complete worksheet on back.

6. Financial Assurance Required

Certification in the amount of $_____ (sum of funds required) or DFP ___
DFP mandatory ___
None (go to step 8) ✓

7. Time of Submittal

Prior to Approving Application ___
Submittal required on/or before ___/___/___ ___

8. License Reviewer Lynn J. Hunter 5-20-92
Signature/Date

A/23
21394



FC 90-2, Rev. 1

5. Possession Limit Worksheet (See Appendix B)

| Isotope | (1) Unsealed Byprod. Mat. | (2) Sealed Byprod. Mat. | (3) Unsealed SNM | (4) Dispersible Source Mat. |
|---|---|---|---|---|
| | Act/($10^3$xApp.C) | Act/($10^{10}$xApp.C) | Act/($10^3$xApp.C) | Act/(10 mCi) |
| Ni-63 | | $\frac{5\,Ci}{10^5\,Ci}$ $5 \times 10^{-5}$ | | |
| Total = | | $5 \times 10^{-5}$ | | |
| Funds Reqd: | | 0 | | |
| | if ≤1.0, enter $0<br>if >1.0, but ≤10.0, enter $150,000<br>if >10.0, but ≤100.0, enter $750,000<br>if >100.0, enter "DFP only" | if ≤1.0, enter $0<br>if >1.0, enter $75,000 | if ≤1.0, enter $0<br>if >1.0, but ≤10.0, enter $150,000<br>if >10.0 but ≤100.0 enter $750,000<br>if >100.0, enter "DFP only" | if ≤1.0, enter $0<br>if >1.0, but ≤10.0, enter $150,000<br>if >10.0, enter "DFP only" |

NRC FORM 374
(10-89)

U.S. NUCLEAR REGULATORY COMMISSION



Amendment No. 03

# MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 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.

| Licensee | |
|---|---|
| 1. On-Site Instruments, Inc. | In accordance with letter dated March 26, 1992<br>3. License number 34-24437-01 is amended in its entirety to read as follows: |
| 2. 689 N. James Road<br>Columbus, OH 43219-1837 | 4. Expiration date: July 31, 1995 |
| | 5. Docket or Reference No.: 030-28575 |

| 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. Nickel-63 | A. Foil sources (Hewlett-Packard Detector Cell Models No. 19233 or Model No. G1223A or Varian Detector Cell Model No. 02-001972-00) | A. No single detector cell to exceed 15 millicuries 5 curies total |
| B. Nickel-63 | B. Leak test samples | B. See Item 9.B., below |

9. Authorized Use:

A. For possession incident to cleaning and repair of detector cells. Redistribution of detector cells to individuals specifically licensed and to individuals generally licensed pursuant to 10 CFR 31.5, in accordance with 10 CFR 32.51.

B. For possession incident to the collection and analysis of leak test samples as a service to individuals specifically licensed and individuals generally licensed pursuant to 10 CFR 31.5.

## CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 689 North James Road, Columbus, Ohio.

11. Licensed material shall be used by, or under the supervision of, Richard E. Herrold or James A. Snyder.

A/24/3

DH

COPY

**MATERIALS LICENSE**
SUPPLEMENTARY SHEET

License number
34-24437-01

Docket or Reference number
030-28575

Amendment No. 03

12. A. (1) Each sealed source acquired from another person and 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 contamination and/or leakage before use. In the absence of a certificate from a transfer or indicting that a test has been made within 6 months before the transfer, a sealed source received from another person shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting materials or 10 microcuries or less of alpha emitting material.

B. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to use or transfer as a sealed source. If the inspection or test reveals any construction defects or 0.005 microcurie or greater of contamination, the source shall not be used or transferred as a sealed source until it has been repaired, decontaminated and retested.

C. 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 except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed 3 months.

D. 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 or semipermanently 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. Records may be disposed of following Commission inspection.

E. If the test required by Subsection A. or C. of this condition 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 date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, ATTN: Chief, Nuclear Materials Safety Branch, describing the equipment involved, the test results, and the corrective action taken.

COPY

License number 34-24437-01

Docket or Reference number 030-28575

Amendment No. 03

**MATERIALS LICENSE**
SUPPLEMENTARY SHEET

13. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.

14. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

15. Licensed material shall not be used in or on human beings.

16. The licensee shall conduct a physical inventory every six (6) months to account for all foil sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of foil sources and the date of the inventory.

17. The licensee shall furnish to each general licensee to whom he transfers a device pursuant to this license, a copy of Section 31.5, 10 CFR 31; Sections 30.34 and 30.51 through 30.63, 10 CFR 30; Section 20.402 and 20.403, 10 CFR 20, and Appendix D, 10 CFR 20.

18. The licensee shall maintain records of information important to safe and effective decommissioning at 689 North James Road, Columbus, Ohio per the provisions of 10 CFR 30/35(g) until this license is terminated by the Commission.

19. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

    A. Applications dated February 19, 1990 and May 11, 1990; and

    B. Letters dated February 19, 1990, May 19, 1990 (with attachments), March 26, 1992, April 14, 1992, May 1, 1992 and May 20, 1992.

For the U.S. Nuclear Regulatory Commission

Date: MAY 27 1992

By Original Signed by Loren J. Hueter
Materials Licensing Section, Region III

COPY

On-Site Instruments

ENVIRORENTAL™

June 19, 1992

Jim Snyder
Radiation Safety Officer

Attn: Loren J. Hueter
United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Hueter:

Additional information for our amendment to our license on Control # 321394 is listed below. We operate with license number 34-24437-01. Please add the sources below to our license.

7.) source from Amersham built to TN specs: $Fe^{55}$ with 50 mCi maximum: cell # 696-942
8.) source from Amersham built to TN specs: $Cd^{109}$ with 5 mCi maximum: cell # 696-782
9.) source from Amersham built to TN specs: $Am^{241}$ with 5 mCi maximum: cell # 696-280

Items 7.), 8.), and 9.) are sources located in the Spectrace 9000 XRF probe from Texas Nuclear with a registry number of TX-534D169B.

Sincerely;

Jim Snyder
Radiation Safety Officer

Date 6/29/92
Lic. Jul 4 III
By Reg
Date Completed 7/6/92

FEE NOT REQUIRED
addl Info 321394

RECEIVED
'91 JUN 29 A8:38
U.S.N.R.C.
FEE MGMT BRANCH

RECEIVED
JUN 19 1992
REGION III

JUN 19 1992
CONTROL NO. 93611
JUN 19 1992

A/25

689 North James Road Columbus, Ohio 43219-1837

(614) 237-3022 1-800-551-2783 FAX: (614) 237-1914

OCT 0 2 1992

On-Site Instruments, Inc.
ATTN: Jim Snyder
689 North James Road
Columbus, OH 43219

Dear Mr. Snyder:

SUBJECT: REQUEST FOR AN AMENDMENT TO LICENSE NO. 34-24437-01 DATED JUNE 19, 1992

The purpose of this letter is to notify you that we consider your application dated June 19, 1992 abandoned and have voided your request. This action is without prejudice to resubmission.

The stated purpose of your June 19, 1992, letter was to provide additional information to Control No. 321394 and more specifically to add sources of Fc-55, Cd-109 and Am-241 for use in a Spectrace 9000XRF probe from Texas Nuclear.

In our cover letter to you dated May 29, 1992, for Amendment No. 03 to your NRC License No. 34-24437-01, we stated in part that we were "unable to confirm the Spectrace 9000 XRF probes containing sealed sources of Fe-55, Cd-109 and Am-241 have been approved by the SSDR. Therefore, it is necessary for you to submit documentation that these sealed sources have been approved by the SSDR. The manufacturer may be of assistance in this matter. Please note it will also be necessary to submit other information to support your application for possession/use of these devices, similar to that submitted for the Ni-63 detector cells. This will include information on possession limits for each device, any services you plan to perform, training for such services, procedures for each service, dosimetry, survey meters, wipe test counting instrumentation, standard calibration sources, wipe test kit instructions. Leak Test Certificates, transportation of devices, etc., if applicable."

In a telephone conversation with you on August 18, 1992, we pointed out that the additional information you submitted in the June 19, 1992 letter was totally deficient regarding adding the Spectrace 9000XRF unit with sources to your license for redistribution. You had not addressed the items requested in our May 29th letter so indicated above. Further it was requested that you resubmit, providing the requested information. It was also suggested that you follow the format you had previously used in your application and letter dated May 11, 1990 and May 19, 1990, respectively, in which you requested authorization to redistribute gas chromatographs.

3611

OCT 0 2 1992

During our telecon on August 18, 1992, you indicated your intention to provide the written response early in the week of August 23-29. We have never received a response. Accordingly we consider that you have abandoned your application and have voided your request.

Sincerely,

Loren J. Hueter
Materials Licensing Section

RIII
LJH
Hueter/mc
10/01/92

(FOR LFMS USE)
INFORMATION FROM LTS

L™

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03220
STATUS CODE: 0
FEE CATEGORY: 3P
EXP. DATE: 19950731
FEE COMMENTS:
DECOM FIN ASSUR REQD: N

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

LICENSE FEE TRANSMITTAL

A. REGION III

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: ON-SITE INSTRUMENTS, INC.
RECEIVED DATE: 920619
DOCKET NO: 3028575
CONTROL NO.: 393611
LICENSE NO.: 34-24437-01
ACTION TYPE: AMENDMENT

2. FEE ATTACHED
AMOUNT: $
CHECK NO.: $

3. COMMENTS
addl info to CN 321394 per L. Huetti
SIGNED P. Dalaff
DATE 6-25-92

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED ✓)

1. FEE CATEGORY AND AMOUNT: 3P
FEE NOT REQUIRED
addl info 321394

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT ✓
RENEWAL
LICENSE

3. OTHER

SIGNED Rita Jacques
DATE 7/6/92

RECEIVED
JUL 09 1992
REGION III

JUN 19 1992
CONTROL NO. 93611
JUN 19 1992

A/26

689 North James Road Columbus, Ohio 43219-1837
(614) 237-3022 1-800-551-2783 FAX: (614) 237-1914

# CONVERSATION RECORD

TIME

DATE 8-18-92

TYPE

☐ VISIT ☐ CONFERENCE ☑ TELEPHONE

☐ INCOMING ☑ OUTGOING

Location of Visit/Conference:

| NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU | ORGANIZATION (Office, dept., bureau, etc.) | TELEPHONE NO. |
|---|---|---|
| Jim Laughlin | M-Life Inst. | 1-800-766-7482 |

| ROUTING | |
|---|---|
| NAME/SYMBOL | INT |
| | |
| | |
| | |
| | |
| | |

SUBJECT

CN 93611

SUMMARY

Request to TM model 9290 X-ray analyzer was received by Spectral Instruments Spectrex 9800 Unit was totally deficient for radiation of these devices. Suggested he resubmit following viewing guide and basically identical to that submitted in application dated 5-11-90 and letter dated 5-19-90 with attachments. We will try to respond by early next week. Preliminarily he will say would take just 15 min. M-Life will do no viewing review and will do not take actual analysis of these devices for shields or for thermoluminescence. They will send them out for analysis to a vendor with which we have a "Info for Animal Bioassay" provided by manufacturer.

ACTION REQUIRED

| NAME OF PERSON DOCUMENTING CONVERSATION | SIGNATURE | DATE |
|---|---|---|
| | Sperry L. Hester | 8-18-92 |

ACTION TAKEN

| SIGNATURE | TITLE | DATE |
|---|---|---|
| | | |



A/27

VOID SHEET

TO: License Fee Management Branch

FROM: R III

SUBJECT: VOIDED APPLICATION

Control Number: 93611

Applicant: On-Site Instruments, Inc

Date Voided: 10-1-92

Reason for Void: Licensee failure to provide the additional information needed and requested to properly evaluate the amendment request.

Loren J. Hunter 10-1-92
Signature Date

Attachment:
Official Record Copy of
Voided Action

FOR LFMB USE ONLY

Final Review of VOID Completed:

100000 ☐ Refund Authorized and processed

[redacted] Refund Due

☑ Fee Exempt or Fee Not Required

Comments:

Log completed ☑

Processed by: 10/26/92

RECEIVED
'92 OCT -6 P3:27
U.S. NRC
FEE MGMT

9211110245 921001
REG3 LIC30
MATLSLICENSING PDR

OCT 0 2 1992

On-Site Instruments, Inc.
ATTN: Jim Snyder
689 North James Road
Columbus, OH 43219

Dear Mr. Snyder:

SUBJECT: REQUEST FOR AN AMENDMENT TO LICENSE NO. 34-24437-01 DATED JUNE 19, 1992

The purpose of this letter is to notify you that we consider your application dated June 19, 1992 abandoned and have voided your request. This action is without prejudice to resubmission.

The stated purpose of your June 19, 1992, letter was to provide additional information to Control No. 321394 and more specifically to add sources of Fc-55, Cd-109 and Am-241 for use in a Spectrace 9000XRF probe from Texas Nuclear.

In our cover letter to you dated May 29, 1992, for Amendment No. 03 to your NRC License No. 34-24437-01, we stated in part that we were "unable to confirm the Spectrace 9000 XRF probes containing sealed sources of Fe-55, Cd-109 and Am-241 have been approved by the SSDR. Therefore, it is necessary for you to submit documentation that these sealed sources have been approved by the SSDR. The manufacturer may be of assistance in this matter. Please note it will also be necessary to submit other information to support your application for possession/use of these devices, similar to that submitted for the Ni-63 detector cells. This will include information on possession limits for each device, any services you plan to perform, training for such services, procedures for each service, dosimetry, survey meters, wipe test counting instrumentation, standard calibration sources, wipe test kit instructions. Leak Test Certificates, transportation of devices, etc., if applicable."

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A/29 93611

OCT 0 2 1992

During our telecon on August 18, 1992, you indicated your intention to provide the written response early in the week of August 23-29. We have never received a response. Accordingly we consider that you have abandoned your application and have voided your request.

Sincerely,

Loren J. Hueter
Materials Licensing Section

RIII
LJH
Hueter/mc
10/01/92

# CONVERSATION RECORD

TIME

DATE 8-18-92

TYPE ☐ VISIT ☐ CONFERENCE ☒ TELEPHONE ☐ INCOMING ☒ OUTGOING

Location of Visit/Conference:

| NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU | ORGANIZATION (Office, dept., bureau, etc.) | TELEPHONE NO: |
|---|---|---|
| Tim Snyder | On-Site Inst. | 1-800-766-7483 |

| ROUTING | |
|---|---|
| NAME/SYMBOL | INT |
| | |
| | |
| | |
| | |
| | |

SUBJECT
CN 93611

SUMMARY
Request to TN Model 9290 X-ray analyzer as a component of Spectrace Instruments Spectrace 9800 Unit was totally deficient. for redistribution of these devices suggested he resubmit following licensing guide and basically identical to that submitted in applic. dated 5-11-90 and letter dated 5-19-90 with attachments. He will try to respond by early next week preliminarily he said they would ask for about 15 units on-site will do no servicing repair and will do no leak testing analysis of these devices for clients or for themselves. They will send them out for analysis to someone with. Will submit a copy of "Info for General Licensees" provided by manufacturer.

ACTION REQUIRED

| NAME OF PERSON DOCUMENTING CONVERSATION | SIGNATURE | DATE |
|---|---|---|
| | Lorna J. Hostetler | 8-18-92 |

ACTION TAKEN

| SIGNATURE | TITLE | DATE |
|---|---|---|
| | | |

On-Site Instruments

34-24437-01
030-28575
[illegible]
CN 21544

ENVIRORENTAL™

June 19, 1992

Jim Snyder
Radiation Safety Officer

Attn: Loren J. Hueter
United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Hueter:

Additional information for our amendment to our license on Control # 321394 is listed below. We operate with license number 34-24437-01. Please add the sources below to our license.

7.) source from Amersham built to TN specs: $Fe^{55}$ with 50 mCi maximum: cell # 696-942
8.) source from Amersham built to TN specs: $Cd^{109}$ with 5 mCi maximum: cell # 696-782
9.) source from Amersham built to TN specs: $Am^{241}$ with 5 mCi maximum: cell # 696-280

Items 7.), 8.), and 9.) are sources located in the Spectrace 9000 XRF probe from Texas Nuclear with a registry number of TX-534D169B.

Sincerely;

Jim Snyder

Jim Snyder
Radiation Safety Officer

RECEIVED
JUN 19 1992
REGION III

JUN 19 1992
CONTROL NO. 93611
JUN 19 1992

689 North James Road Columbus, Ohio 43219-1837

(614) 237-3022 1-800-551-2783 FAX: (614) 237-1914

DEC 15 1993

On-Site Instruments, Inc.
ATTN: David P. Cheetham, Senior Vice President
689 N. James Road
Columbus, Ohio 43219-1837

Gentlemen:

This refers to your letter dated November 11, 1993, for an amendment to Materials License 34-24437-01.

Your request is subject to an amendment fee of $360 as specified in fee Category 3P of 10 CFR 170.31 of the enclosed July 20, 1993, Federal Register notice. Payment of the $360 fee should be made to the U.S. Nuclear Regulatory Commission and mailed to the following address:

U.S. Nuclear Regulatory Commission
ATTN: Shirley Crutchfield
License Fee and Debt Collection Branch, OC/DAF
Mail Stop MNBB 4503
Washington, D.C. 20555

Your application will be processed by the Region III Licensing staff located at 799 Roosevelt Road, Glen Ellyn, IL 60137. The fee, however, is required prior to issuance of the amendment. When submitting the fee, please refer to CONTROL NUMBER 396080.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we shall assume that you do not wish to pursue your application and will void this action.

Sincerely,

Shirley Crutchfield
License Fee and Debt Collection Branch
Division of Accounting and Finance
Office of the Controller

Enclosure:
July 20, 1993, Federal Register notice

cc: Region III

DISTRIBUTION
Pending Fee File
OC/DAF R/F
LFDCB R/F (2)

| | | |
|---|---|---|
| OFFICE: | OC/LFDCB | OC/LFDCB |
| NAME: | SCrutchfield | CPhillips |
| DATE: | 12/15/93 | 12/15/93 |

AB/A:\ONSITE.PNC

A/30

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03220
STATUS CODE: 0
FEE CATEGORY: 3P
EXP. DATE: 19950731
FEE COMMENTS:
DECOM FIN ASSUR REQD: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: ON-SITE INSTRUMENTS, INC.
RECEIVED DATE: 931119
DOCKET NO: 3028575
CONTROL NO.: 396080
LICENSE NO.: 34-24437-01
ACTION TYPE: AMENDMENT

2. FEE ATTACHED
AMOUNT: Ø
CHECK NO.: Ø

3. COMMENTS

SIGNED P. Outlaw
DATE 11-29-93

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED ✓ )

1. FEE CATEGORY AND AMOUNT: 3P $360.00

2. CORRECT FEE PAID. ✓ APPLICATION MAY BE PROCESSED FOR:
AMENDMENT ✓
RENEWAL
LICENSE

3. OTHER

SIGNED SC
DATE 1/3/94

RECEIVED
JAN 11 1994
REGION III

A/31

NRC FORM 374
(10-89)

U.S. NUCLEAR REGULATORY COMMISSION



# 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, 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.

396080

| Licensee | |
|---|---|
| 1. On-Site Instruments, Inc. | In accordance with letter dated November 11, 1995 |
| 2. 689 N. James Road<br>Columbus, OH 43219-1837 | 3. License number 34-24437-01 is amended in its entirety to read as follows: |
| | 4. Expiration date July 31, ~~1995~~ 2000 |
| | 5. Docket or Reference No. 030-28575 |

| 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. Nickel-63 | A. Foil sources (Hewlett-Packard Detector Cell Models No. 19233 or Model No. G1223A or Varian Detector Cell Model No. 02-001972-00) | A. No single detector cell to exceed 15 millicuries 5 curies total |

9. Authorized Use:

A. For possession incident to cleaning and repair of detector cells. Redistribution of detector cells to individuals specifically licensed and to individuals generally licensed pursuant to 10 CFR 31.5, in accordance with 10 CFR 32.51.

## CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 689 North James Road, Columbus, Ohio.

11. Licensed material shall be used by, or under the supervision of, David P. Cheetham or James L. Kotopka.

12. A. (1) Each sealed source acquired from another person and 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 contamination and/or leakage before use. In the absence of a certificate from a transfer or indicting that a test has been made within 6 months before the transfer, a sealed source received from another person shall not be put into use until tested.

9402180023 940128
PDR ADOCK 03028575
C PDR

140285

COPY 2

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
34-24437-01

Docket or Reference number
030-28575

Amendment No. 04

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting materials or 10 microcuries or less of alpha emitting material.

B. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to use or transfers as a sealed source. If the inspection or test reveals any construction defects or 0.005 microcurie or greater of contamination, the source shall not be used or transferred as a sealed source until it has been repaired, decontaminated and retested.

C. 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 except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed 3 months.

D. 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 or semi-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. Records may be disposed of following Commission inspection.

E. If the test required by Subsection A. or C. of this condition 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 for to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, IL 60532-4351, ATTN: Chief, Nuclear Materials Safety Branch, describing the equipment involved, the test results, and the corrective action taken.

13. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.

14. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

15. Licensed material shall not be used in or on human beings.

COPY

**MATERIALS LICENSE**
SUPPLEMENTARY SHEET

License numb
34-24437-01

Docket or Reference number
030-28575

Amendment No. 04

16. The licensee shall conduct a physical inventory every six (6) months to account for all foil sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of foil sources and the date of the inventory.

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    A. Applications dated February 19, 1990 and May 11, 1990; and

    B. Letters dated February 19, 1990, May 19, 1990 (with attachments), March 26, 1992, April 14, 1992, May 1, 1992 and May 20, 1992.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date 1-28-94

By Peter J. Lee
Materials Licensing Section, Region III

COPY

# CONVERSATION RECORD

TIME:

DATE: 1-5-95

TYPE: ☐ VISIT ☐ CONFERENCE ☐ TELEPHONE ☐ INCOMING ☐ OUTGOING

Location of Visit/Conference:

| ROUTING | |
|---|---|
| NAME/SYMBOL | INT |
| | |
| | |
| | |
| | |
| | |

| NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU | ORGANIZATION (Office, dept., bureau, etc.) | TELEPHONE NO: |
|---|---|---|
| D. Cheetham | ON-SITE INSTRUMENTS | 614-846-3022 |

SUBJECT: Ret Mail fr Lgl

SUMMARY: #34-24437-01 / 030-28575 LTL for AMD dtd 12-26-94; Rec'd 1-4-95.

Add. Change/RSO Change

ON-SITE INSTRUMENTS
404 ENTERPRISE DRIVE
COLUMBUS, OH 43081
ATTN: DAVID P. CHEETHAM
[illegible]

*NOTE - LOOKS LIKE RSO NAME CHANGE WAS done 1-28-94 - but NOT change in system
See Above - We are now Re-located too.

ACTION REQUIRED

| NAME OF PERSON DOCUMENTING CONVERSATION | SIGNATURE | DATE |
|---|---|---|
| [illegible] | [illegible] | 1-5-95 |

ACTION TAKEN

| SIGNATURE | TITLE | DATE |
|---|---|---|
| | | A133 |

LIST OF RECENTLY ISSUED
NRC INFORMATION NOTICES

| Information Notice No. | Subject | Date of Issuance | Issued to |
|---|---|---|---|
| 94-80 | Inadequate DC Ground Detection in Direct Current Current Distribution Systems | 11/25/94 | All holders of OLs or CPs for nuclear power reactors. |
| 94-79 | Microbiologically Influenced Corrosion of Emergency Diesel Generator Service Water Piping | 11/23/94 | All holders of OLs or CPs for nuclear power reactors. |
| 94-78 | Electrical Component Failure due to Degradation of Polyvinyl Chloride Wire Insulation | 11/21/94 | All holders of OLs or CPs for nuclear power reactors. |
| 94-77 | Malfunction in Main Generator Voltage Regulator Causing Overvoltage at Safety-Related Electrical Equipment | 11/17/94 | All holders of OLs or CPs for nuclear power reactors. |
| 94-76 | Recent Failures of Charging/ Safety Injection Pump Shafts | 10/26/94 | All holders of OLs or CPs for pressurized water reactors. |
| 93-60, Supp. 1 | Reporting Fuel Cycle and Materials Events to the NRC Operations Center | 10/20/94 | All 10 CFR Part 70 fuel cycle licensees. |
| 94-75 | Minimum Temperature for Criticality | 10/14/94 | All holders of OLs or CPs pressurized-water reactors (PWRs). |
| 94-74 | Facility Management Responsibilities for Purchased or Contracted Services for Radiation Therapy Programs | 10/13/94 | All U.S. Nuclear Regulatory Commission Medical Licensees. |

OL = Operating License
CP = Construction Permit

R1201021 LICENSING TRACKING SYSTEM DATE: 950106
PAGE: 1

R4

LTS WORKSHEET

DOCKET NO : 03028575 LICENSE NO : 34-24437-01 STATUS: O

MAIL CONTROL: 398004 RECEIPT DATE : 950104 ACTION TYPE: 4
DUE DATE : 950404

FED. GOVT : N INST. CODE : 24437 LICENSE REGION: 3

ISSUE DATE: 940128 ORIGINAL DATE: 850313 EXPIRATION DATE: 19950731

NAME : ON-SITE INSTRUMENTS INCORPORATED DECOM FIN ASSUR REQD: N
SUBM: N

DEPT/BUREAU: _____ CONT PLAN REQD: N APPRV: N

BUILDING : _____

STREET : 404 ENTERPRISE DRIVE

CITY : COLUMBUS STATE: OH ZIP: 43081

CONTACT PERSON: DAVID P. CHEETHAM/SEN.VP/RSO PHONE: 614-237-3022

PRIMARY PGM CODE : 03240 ~~03125~~ SECONDARY PGM CODES: ~~03240~~ 03123

INSPECTION REGION: 3 PRIORITY CODE: 4 INSPECTION CATEGORY: E

RADIATION SAFETY OFFICER: DAVID P. CHEETHAM/SEN.VICE PRES.

STATES WHERE USE IS AUTHORIZED: 1
0 - ALL LISTED STATES
1 - SAME AS STATE IN ADDRESS
2 - ALL STATES
3 - NON-AGREEMENT STATES

AUTHORIZED STATES: _____ (USE ONLY IF ABOVE IS ZERO)

REPORTING IDENTIFICATION SYMBOL: _____

APPROVAL FOR: REDISTRIBUTION: N STORAGE ONLY: N
TEMPORARY JOB SITES: N INCINERATION: N
BURIAL: N

EXEMPTIONS: (1)_____ (2)_____

Abandoned by Adgtra

A/34

(3)

# *Source Inventory January 1995*

next wipe due: March 1995

Source S/N location

Hewlett-Packard Model 19233

L5968 OSI 1/95
L6520 OSI 1/95
L6816 OSI 1/95
M1366 OSI 1/95
K0054 OSI 1/95

L7012 OSI 1/95
L7044 OSI 1/95
L7046 STILSON TO OSI 1/26/95
M1362 OHM 7/27/94-Midway Island
L6937 OSI 1/95

Hewlett-Packard Model G1223A

F3366 AL SANDPIPER 10/4/94-Cols, OH
F3437 DTC LABS 11/24/93-Springfield,IL
F3448 DTC LABS 11/24/93-Springfield,IL
F4447 OSI 1/95
F4452 SOLD TO STILSON LABS
F4453 SOLD TO STILSON LABS
F4454 OSI 1/95
F4455 OSI 1/95
F4456 OSI 1/95
F4478 OSI 1/95
F4479 OSI 1/95
F4483 OSI 1/95
F4484 OSI 1/95
F7983 OSI 1/95
F7996 OSI 1/95
F8077 GEO CORP 7/19/94-Golden, CO

Outokumpu DOPS 144095

$Am^{241}$ 2767LX Xmet for Repair to OSI 1/25/95
$Cm^{244}$ 1866LM Xmet for Repair to OSI 1/25/95

Valco 140 BN

N189 OSI 1/95

Varian model 02-1972-00

A7461 OSI 1/95

Notes: Wipe tests for these ECD's were done in August of 1994 the next wipe tests are due in 6 months from this time.

ABS

Roy F. Weston
99 South Bedford St. Suite 5
Burlington, MA 01803

ECD S/N: F4483

Attn : John Donahue
Phone: 617-229-6430

---

West Laboratory
1046 Olive Drive #3
Davis, CA 95616

ECD S/N: F7983
S/N: F7996

Attn: Joel Kiss
Phone: 916-753-9500

---

OHM
Sleepy Hole Rd.
Rt. 169
Driver, VA 23435

ECD S/N: F4447

Attn: Mike Lacy
Phone: 609-588-6339

---

ETS Analytical Services
2401 Municipal Road
Roanoke, VA 24012

ECD S/N: F4478
ECD S/N: F4484

Attn: David Tompkins
Phone: 703-265-0004

OHM
720 Iwieli Road
Room #207
Honolulu, HI 96817
Attn: Midway

ECD S/N: M1362
GC S/N: 3203A41846

Phone:1-808-471-1110
Contact on Midway: Jerry Peters or Kevin Wilson

---

A.L. Sandpiper
1487 Deleshmut Ave.
Columbus, OH 43212
Attn: Mark Gabel

ECD S/N: F3366
GC S/N: 3203A41838

Phone: 297-0365

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DTC Labs
4590 Industry Drive
Springfield, IL 62703
Attn: Andy Gairani

ECD's S/N: F3437
S/N: F3448
GC S/N: 3203A42182

Phone: (217) 529-9191

---

Geo Corp.
400 Corporate Circle #F
Golden, CO 80401
Attn: Liz Sexton

ECD S/N: F8077

Phone: (303) 279-4655

---

Stilson Labortories
6121 Huntley Road
Columbus, OH 43229
Attn: Jeff Suggs

ECD's S/N: F4452
S/N: F4453

Phone: (614) 848-4333

LICENSING ACTION

The licensee requested in a letter dated February 15, 1995 and March 13, 1995, to list a new facility on the license and to change the authorized use to analysis of environmental samples in place of "for possession incident to cleaning and repair of detector cells. According to Dave Chetham, they never repaired or cleaned detector cells. Cells were only used in GC units. The request appeared to be valid and in accordance with the NRC SRP.

This action is certified by James R. Mulkauer, M.H.S. 3/4/95
Health Physicist.

A/36

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

On-Site Instruments
ATTN: David P. Cheetham
Radiation Safety Officer
404 Enterprise Drive
Columbus, OH 43081

Dear Mr. Cheetham:

Enclosed is Amendment No. 05 to your NRC Material License No. 34-24437-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:

   a. When you decide to terminate all activities involving materials authorized under the license; or

   b. If you decide not to complete the facility, acquire equipment, or possess and use authorized material.

3. Request and obtain a license amendment before you:

   a. Change Radiation Safety Officers;

   b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;

A/37

c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or

d. Change ownership of your organization.

4. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

James R. Mullauer, M.H.S.
Health Physicist
Nuclear Materials Licensing Section

License No. 34-24437-01
Docket No. 030-28575

Enclosure: Amendment No. 05

# MATERIALS LICENSE

**Amendment No. 05**

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 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.

| Licensee | |
|---|---|
| 1. On-Site Instruments | In accordance with letters dated February 15, 1995 and March 13, 1995 |
| 2. 404 Enterprise Drive<br>Columbus, OH 43081 | 3. License Number 34-24437-01 is amended in its entirety to read as follows: |
| | 4. Expiration Date July 31, 1995 |
| | 5. Docket or Reference No. 030-28575 |

| 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. Nickel-63 | A. Foil sources (Hewlett-Packard Detector Cell Models No. 19233 or Model No. G1223A or Varian Detector Cell Model No. 02-001972-00) | A. No single detector cell to exceed 15 millicuries 5 curies total |

9. Authorized Use:

A. For analysis of environmental samples and redistribution of detector cells to individuals generally licensed pursuant to 10 CFR 31.5, in accordance with 10 CFR 32.51.

## CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 404 Enterprise Drive, Columbus, Ohio.

11. Licensed material shall be used by, or under the supervision of, David P. Cheetham or James L. Kotopka.

12. A. (1) Each sealed source acquired from another person and 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 contamination and/or leakage before use. In the absence of a certificate from a transfer or indicting that a test has been made within 6 months before the transfer, a sealed source received from another person shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting materials or 10 microcuries or less of alpha emitting material.

B. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to use or transfers as a sealed source. If the inspection or test reveals any construction defects or 0.005 microcurie or greater of contamination, the source shall not be used or transferred as a sealed source until it has been repaired, decontaminated and retested.

C. 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 except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed 3 months.

D. 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 or semi-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. Records may be disposed of following Commission inspection.

E. If the test required by Subsection A. or C. of this condition 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 for to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, IL 60532-4351, ATTN: Chief, Nuclear Materials Safety Branch, describing the equipment involved, the test results, and the corrective action taken.

13. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.

14. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

15. Licensed material shall not be used in or on human beings.

License Number
34-24437-01

Docket or Reference Number
030-28575

**MATERIALS LICENSE**
**SUPPLEMENTARY SHEET**

Amendment No. 05

16. The licensee shall conduct a physical inventory every six (6) months to account for all foil sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of foil sources and the date of the inventory.

17. The licensee shall furnish to each general licensee to whom he transfers a device pursuant to this license, a copy of Section 31.5, 10 CFR 31; Sections 30.34 and 30.51 through 30.63, 10 CFR 30; Section 20.402 and 20.403, 10 CFR 20, and Appendix D, 10 CFR 20.

18. The licensee shall maintain records of information important to safe and effective decommissioning at 689 North James Road, Columbus, Ohio per the provisions of 10 CFR 30/35(g) until this license is terminated by the Commission.

19. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

    A. Applications dated February 19, 1990 and May 11, 1990; and

    B. Letters dated February 19, 1990, May 19, 1990 (with attachments), March 26, 1992, April 14, 1992, May 1, 1992, May 20, 1992, February 15, 1995 (with attachments).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date MAR 22 1995

By James Mulhauser
Materials Licensing Section, Region III

Printed on recycled paper

ON-SITE
INSTRUMENTS
Enterprise Drive
Westerville, Ohio 43081
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

March 13, 1995

David P Cheetham
(614) 846-3022
Senior Vice President

Mr. James Mullauer
United States Nuclear Regulatory Commission Region III
Materials Licensing Section
801 Warrenville Road
Lisle, IL 60532-4351

Dear Mr. Mullauer:

On-Site Instruments wishes to make the following amendment to Licensee On-Site Instruments, License number 34-24437-01:

1. We want to delete the first sentence of section 9A that currently reads "For possession incident to cleaning and repair of detector cells."

The materials under this license are to be used for chemical analysis and for redistribution of generally licensed materials. (Reference Control 398004 as additionally only)

Please contact me if any further information is needed.

Sincerely,

David P Cheetham
RSO

RECEIVED
MAR 20 1995
REGION III

# CONVERSATION RECORD

TIME: 1 p.m.
DATE: 3/9/95

O VISIT  O CONFERENCE  X TELEPHONE

O INCOMING
X OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT | ORGANIZATION (OFFICE, DEPT.,ETC.) | TELEPHONE NO.

Dave Cheetham, V.P.
On-Site Instruments
614-846-3022

SUBJECT

Amendment request dated February 15,1995

SUMMARY

I spoke with Dave to clear up the discrepancy concerning his possession of Am-241 and Cm-244. These sources are used in a OutoKumpu X-ray fluorescent analyzer Model 880 and is possessed under a general license as shown in the NRC SSD. That issue is closed.

Dave also informed me that they do not and never did clean and repair foil sources as authorized by their license. They do, however, use GCs for analyzing environmental samples and redistribute generally licensed Gcs. Dave will submit for information only a request to change item 9.A. of their license to better describe how sources are used for their business. This will be submitted as additional information to control No. 398004.

ACTION REQUIRED

Response due by 3/18/95

NAME OF PERSON DOCUMENTING CONVERSATION | SIGNATURE | DATE

James R. Mullauer  James Mullauer 3/9/95

ACTION TAKEN

SIGNATURE | TITLE | DATE

CONVERSATION RECORD

TIME: 8 a.m.
DATE: 2/13/95

O VISIT  O CONFERENCE  X TELEPHONE

O INCOMING
X OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT | ORGANIZATION (OFFICE, DEPT.ETC.) | TELEPHONE NO.

David Cheetham, Senior Vice President
On-Site Instruments
614-846-3022

SUBJECT
Letter dated 12/26/94

SUMMARY
I spoke with Dave concerning the following needed information:

1. Provide an area diagram showing, hot lab, storage of RAM, etc.

2. Address security

3. Provide a copy of letter dated 12/26/94 which is signed.

4. Provide the new phone number.

5. They moved in 12/94.
Dave stated that the amendment request was delayed because he sent the amendment request to the old 799 Roosevelt Rd. address and the letter came back. I informed Dave that technically he is in violation of the license. Dave will provide the above info by the week of 2/20/95.

ACTION REQUIRED
Wait for response.

James Mullauer 2/13/95

NAME OF PERSON DOCUMENTING CONVERSATION | SIGNATURE | DATE

James R. Mullauer
2/13/95

ACTION TAKEN

SIGNATURE | TITLE | DATE

ON-SITE
INSTRUMENTS
404 Enterprise Drive
Westerville, Ohio 43081
(614) 846-3022
1-800-766-7483
FAX (614) 846-3994

February 15, 1995

David P Cheetham
(614) 846-3022
Senior Vice President

Mr. James Mullauer
United States Nuclear Regulatory Commission Region III
Materials Licensing Section
801 Warrenville Road
Lisle, IL 60532-4351

Dear Mr. Mullauer:

I have enclosed the information that you requested during our last conversation regarding Licensee On-Site Instruments, License number 34-24437-01. Please contact me if any further information is needed.

1. On-Site Instrument's new facility is an approximately 53,000 square foot building with On-Site Instruments as the sole occupant.

On-Site Instrument's address is:

On-Site Instruments
404 Enterprise Drive
Columbus, Ohio 43081

2. Diagram of facility: See Attached.

3. Current inventory of sources: See Attached

4. Copy of original letter with signature: See Attached

5. New phone number: (614) 846-3022

6. Security:

The sealed sources referenced in our attached source

RECEIVED
FEB 27 1995
REGION III

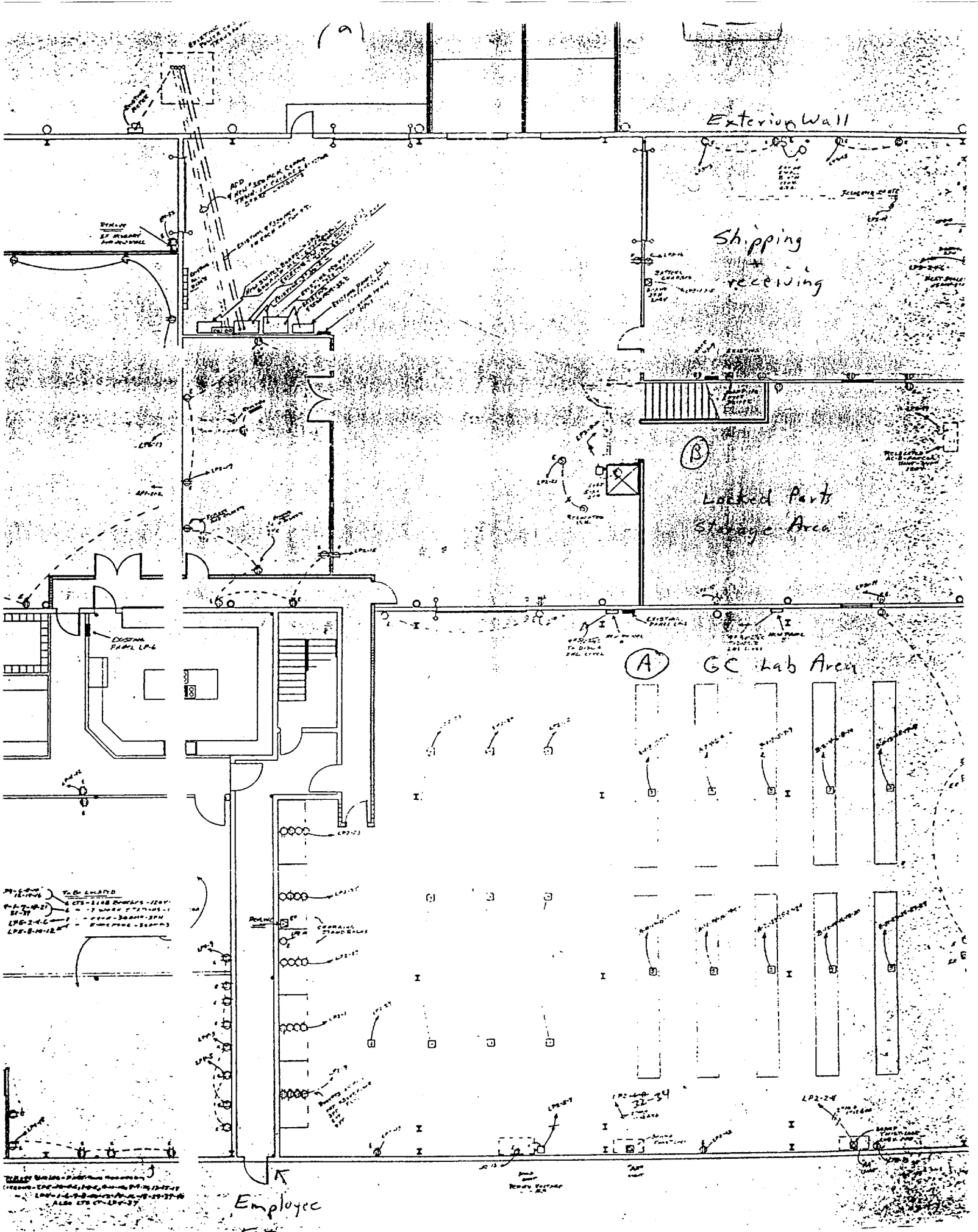
N-SITE
ENTS
se Drive
Westerville, Ohio 43081
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

are kept in the GC Lab Area (area A on diagram) or if the sources are uninstalled in an instrument they are kept in the adjoining parts storage area. Both areas are locked limited access areas. Any movement of sources must be under the direct supervision of the radiation safety officer.

The areas A and B are monitored during nonbusiness hours by a Honeywell Security System and the radiation safety officer is the first person notified to come to the building in case of an alarm.

Sincerely,

David P Cheetham
Radiation Safety Officer




On-Site Instruments
404 Enterprise Drive

(3)

# *Source Inventory January 1995*

Source S/N location next wipe due March 1995

Hewlett-Packard Model 19233

L5968 OSI 1/95
L6520 OSI 1/95
L6816 OSI 1/95
M1366 OSI 1/95
K0054 OSI 1/95

L7012 OSI 1/95
L7044 OSI 1/95
L7046 STILSON TO OSI 1/26/95
M1362 O-M 7/27/94-Midway Island
L6937 OSI 1/95

Hewlett-Packard Model 61223A

F3366 AL SANDPIPER 10/4/94-Cols, OH
F3437 DTC LABS 11/24/93-Springfield,IL
F3448 DTC LABS 11/24/93-Springfield,IL
F4447 OSI 1/95
F4452 SOLD TO STILSON LABS
F4453 SOLD TO STILSON LABS
F4454 OSI 1/95
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F4456 OSI 1/95
F4478 OSI 1/95
F4479 OSI 1/95
F4483 OSI 1/95
F4484 OSI 1/95
F7983 OSI 1/95
F7996 OSI 1/95
F8077 GEO CORP 7/19/94-Golden, CO

Outokumpu DOPS 144C95

$Am^{241}$ 2767LX Xmet for Repair to OSI 1/25/95
$Cm^{244}$ 1866LM Xmet for Repair to OSI 1/25/95

Valco 140 BN

N189 OSI 1/95

Varian model 02-1972-00

A7461 OSI 1/95

Notes: Wipe tests for these ECD's were done in August of 1994 the next wipe tests are due in 6 months from this time.

OHM
720 Iwieli Road
Room #207
Honolulu, HI 96817
Attn: Midway

ECD S/N: M1362
GC S/N: 3203A41846

Phone: 1-808-471-1110
Contact on Midway: Jerry Peters or Kevin Wilson

---

A.L. Sandpiper
1487 Deleshmut Ave.
Columbus, OH 43212
Attn: Mark Gabel

ECD S/N: F3366
GC S/N: 3203A41838

Phone: 297-0365

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DTC Labs
4590 Industry Drive
Springfield, IL 62703
Attn: Andy Gairani

ECD's S/N: F3437
S/N: F3448
GC S/N: 3203A42182

Phone: (217) 529-9191

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Geo Corp.
400 Corporate Circle #F
Golden, CO 80401
Attn: Liz Sexton

ECD S/N: F8077

Phone: (303) 279-4655

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Stilson Labortories
6121 Huntley Road
Columbus, OH 43229
Attn: Jeff Suggs

ECD's S/N: F4452
S/N: F4453

Phone: (614) 848-4333

**On-Site Instruments** Date: January 26, 1995

Note: On-Site Instruments must have this certification on file before the title for an electron capture detector can be transferred.

The undersigned hereby certifies that he/she has read, understood, and will adhere to the instructions for the model G1223A Hewlett Packard electron capture detector as outlined in the attached booklet and will read and adhere to the appropriate information in the instrument manuals and other pertinent information as may be disseminated by the manufacturer or regulatory agency. The undersigned furthermore accepts responsibility for the operation and maintenance of the electron capture detector in a safe condition, said operation and maintenance lying beyond On-Site Instruments' control.

Name of General Licensee (user): Keith James

Printed: Michael R. Pannell

Signature: Michael R. Pannell

Title: Manager

Company: Stilson Labotatories

Address: 6121 Huntley Road

Columbus, OH 43229

ECD Serial Numbers: F4452 and F4453

Name, title and address of contact person for regulatory agency, if different from above. State relationship to general licensee:

ON-SITE
INSTRUMENTS
689 North James Road
Columbus, Ohio 43219-1837
(614) 237-3022
1-800-766-7483
FAX (614) 237-1914

December 26, 1994

David P Cheetham
(614) 846-3022
Senior Vice President

William J Adam, Ph.D.
United States Nuclear Regulatory Commission Region III
Materials Licensing Section
801 Warrenville Road
Lisle, IL 60532-1357

Dear Dr. Adam:

Licensee On-Site Instruments, License number 34-24437-01 wishes to amend the following sections of our US NRC license (if this action requires amending).

On-Site Instruments is moving to a new facility approximately 10 miles from 689 North James Road. The new facility is an approximately 53,000 square foot building with On-Site Instruments as the sole occupant.

On-Site Instrument's new address will be:

On-Site Instruments
404 Enterprise Drive
Columbus, Ohio 43081

I have enclosed two copies of this amendment. Please contact me if any further information is needed.

Sincerely,

David P Cheetham
Senior Vice President

# *Source Inventory June 30,1995*

Source S/N location next wipe due: March 1995

Hewlett-Packard Model 19233

L5968 OSI 6/95
L6520 OSI 6/95
L6816 OSI 6/95
M1366 OSI 6/95
K0054 OSI 6/95

L7012 OSI 6/95
L7044 OSI 6/95
L7046 OSI 6/95
M1362 OHM 7/27/94-Midway Island
L6937 OSI 6/95

Hewlett-Packard Model G1223A

F3366 AL SANDPIPER 10/4/94-Cols, OH
F3437 DTC LABS 11/24/93-Springfield,IL to OSI 6/9/95
F3448 DTC LABS 11/24/93-Springfield,IL to OSI 6/9/95
F4447 OSI 6/95
F4454 OSI 6/95
F4455 OSI 6/95
F4456 OHM 3/23/95 -Jacksonville, NC
F4478 ETS Analyitcal Services 6/20/95 Roanoke, VA
F4479 Halliburton NUS 2/24/95 Warminster,PA
F4483 Roy F. Weston 5/4/95 Burlington, MA
F4484 ETS Analyitcal Services 6/20/95 Roanoke, VA
F7983 OSI West Lab. 6/2/95 Davis, CA
F7996 OSI West Lab. 6/2/95 Davis, CA
F8077 GEO CORP 7/19/94-Golden, CO

Outokumpu DOPS 144095

$Am^{241}$ 2767LX OSI 6/95
$Cm^{244}$ 1866LM OSI 6/95

Valco 140 BN

N189 OSI 3/95 OSI 6/95

Varian model 02-1972-00

A7461 OSI 6/95
A9202 OSI 6/95
A9203 OSI 6/95

Notes: Wipe tests for these ECD's were done in March of 1995 the next wipe tests are due in 6 months from this time.

A138

OHM
720 Iwieli Road
Room #207
Honolulu, HI 96817
Attn: Midway

ECD S/N: M1362
GC S/N: 3203A41846

Phone:1-808-471-1110
Contact on Midway: Jerry Peters or Kevin Wilson

---

A.L. Sandpiper
1487 Deleshmut Ave.
Columbus, OH 43212
Attn: Mark Gabel

ECD S/N: F3366
GC S/N: 3203A41838

Phone: 297-0365

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Geo Corp.
400 Corporate Circle #F
Golden, CO 80401
Attn: Liz Sexton

ECD S/N: F8077

Phone: (303) 279-4655

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Halliburton NUS
c/o Naval Warfare Center- Warminster
Jacksonville Road (at Gate 33)
Warminster, PA 18974
Attn: Russ Sloboda

ECD S/N: F4479

Phone: (215) 957-0791

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OHM/Camp Lejeune
Lot 203 Holcomb Blvd.
Jacksonville, NC 28542
Attn: Randy Smith

ECD S/N: F4456

Phone: (910) 451-1809

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# REFUND DUE - ELIGIBLE FOR EXTENSION

680
22738

D. Hersey
7-3-95

3P

#680.00

SC 7/6/95

| | |
|---|---|
| Log | Jul 5 III |
| Remitter | |
| Check No. | 22738 |
| Amount | #680.00 |
| Fee Category | 3P |
| Type of Fee | Renewal |
| Date Check Rec'd | 7-5-95 |
| Date Completed | 7-6-95 |
| By: | SC |

Refund
#680.00

A/39

NRC FORM 591 PART 1
(7-91)
10 CFR 2.201

# SAFETY INSPECTION

U.S. NUCLEAR REGULATORY COMMISSION

IE-07
PUBLIC



| 1. LICENSEE | 2. REGIONAL OFFICE |
|---|---|
| On-Site Instruments<br>404 Enterprise Drive<br>Lewis Center, OH 43035 | OK<br>REGION III<br>U S NUCLEAR REGULATORY COMMISSION<br>801 WARRENVILLE ROAD<br>LISLE IL 60532-4351 |

| 3. DOCKET NUMBER(S) | 4. LICENSE NUMBER(S) | 5. DATE OF INSPECTION |
|---|---|---|
| 030-28575 | 34-24437-01 | July 20, 1995 |

LICENSEE:
The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The findings as a result of this inspection are as follows:

[X] 1. Within the scope of this inspection, no violations were observed.

[ ] 2. The inspector also verified the steps you have taken to correct the violations identified during the last inspection. We have no further questions on those actions at this time.

[ ] 3. During this inspection certain of your activities, as described below or attached, were in violation of NRC requirements. This form is a **NOTICE OF VIOLATION,** which is required to be posted in accordance with 10 CFR 19.11.

[ ] A. _____ was not properly posted to indicate the presence of a _____. 10 CFR 20.203(b),(c),(d),(e) or 34.42.

[ ] B. _____ of sealed sources were not performed at the proper frequencies. 10 CFR _____ or License Condition Number _____.

[ ] C. Records of _____ were not properly maintained. 10 CFR _____ or License Condition Number _____.

[ ] D. Documents were not properly posted or otherwise made available. 10 CFR 19.11.

[ ] E. Reports or notification of _____ were not made in accordance with 10 CFR _____ or License Condition Number _____.

[ ] F. _____

9508080251 950720
PDR ADOCK 03028575
C PDR

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified in the items checked above. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201. No further response will be submitted unless required by the NRC.

| SIGNATURE – LICENSEE | DATE | SIGNATURE – NRC INSPECTOR | DATE |
|---|---|---|---|
| 080072 | | D. R. Gibbons | July 20, 1995 |

APPENDIX E

NOTE: All areas indicated in field notes are not required to be addressed during each inspection

**INDUSTRIAL/ACADEMIC/RESEARCH INSPECTION FIELD NOTES**
Region III

Inspection Report No. **95-001** License No. **34-24437-01**

Licensee (Name & Address): Docket No. **030-28575**
**On-Site Instruments**
**404 Enterprise Drive**
**Columbus, OH 43081**

Licensee Contact **David P. Cheetham-RSO** Telephone No. **614-846-3022**

Last Amendment No. **05** Date of Amendment **March 22, 1995**

Priority: **E-4**
Program Code **03240**

Date of Last Inspection **Sept. 16, 1987**
Date of This Inspection **July 20, 1995**

Type of Inspection: ( ) Announced (x) Unannounced
(x) Routine ( ) Special
( ) Initial ( ) Reinspection

Next Inspection Date **2001/07** ( ) Normal ( ) Reduced (x) Extended

Summary of Findings and Action:

(x) No violations cited, Clear 591 issued
( ) Violation(s), 591 issued
( ) Violation(s), Regional letter issued
( ) Followup on Previous Violations

Were non-cited violations identified during this inspection? ( ) Y (x) N

Was proprietary information reviewed by or received by the inspector? ( ) Y (x) N

Inspector: Donald R. Hilton Date July 31, 1995
(Signature)

Approved: J. Simmons Date 8/3/95
(Signature)

1. INSPECTION HISTORY ( ) N/A - Initial inspection

A. Violations were identified during any of the last two inspections or two years, whichever is longer ( ) Y (x) N

B. Response letter(s) or 591(s) dated **N/A**

C. Open violations from previous inspections: (x) N/A

| Requirement | Violation | Corrective Action Taken (Y/N) | Status Open/Closed |
|---|---|---|---|

D. Explain any previous violation(s) not corrected or repeated (x) N/A

2. ORGANIZATION AND SCOPE OF PROGRAM

A. Organizational Structure

*** + Larry Cheetham- President/Owner**
*** + David Cheetham- Vice President/RSO**

+ Individuals contacted during inspection
* Individuals present at exit meeting

1. Meets license requirements [L/C] (x) Y ( ) N
2. Multiple authorized locations of use and/or laboratories ( ) Y (x) N
   If yes, may use **ATTACHMENT A** as a guide for location(s) or lab(s) inspected and note lab numbers where violations are found. (x) N/A
3. Briefly describe scope of activities, including types and quantities of use involving byproduct material, frequency of use, staff size, etc.

   **The licensee receives Ni-63 in Varian and Hewlett Packard detector cells that are part of Gas chromatograph units. The units are rented to other firms under General Licenses. The detector cells are not opened or maintenance work performed on them. Some maintenance is performed on the gas chromatograph, but the Ni-63 detectors are always left intact. Any maintenance required on the Ni-63 detectors will be performed by Hewlett Packard or Varian personnel.**

B. Radiation Safety Committee required [L/C] ( ) Y (x) N

1. RSC fulfills license requirements [L/C] ( ) Y ( ) N
2. Records maintained [L/C] ( ) Y ( ) N

C. Radiation Safety Officer

1. Authorized on license [L/C] (x) Y ( ) N
2. Fulfills duties as RSO (x) Y ( ) N

D. Use by authorized individuals [L/C] (x) Y ( ) N

Remarks:

The RSO has been the only person to perform any work on the detectors. That has been, mainly, leak test collections, and inventory.

3. TRAINING, RETRAINING, AND INSTRUCTIONS TO WORKERS

A. Instructions to workers/students per [10 CFR 19.12] (x) Y ( ) N
B. Training program required [L/C] (x) Y ( ) N

1. If so, briefly describe training program:

Personnel submit their training to the Region for inclusion on the license as an authorized user. A renewal is in the Region which request additional authorized users. Personnel review the Manuals prior to release to a client. Manuals are also sent to clients with instructions how to use, Regulatory Requirements, Instructions not to jeopardize the source integrity and other instructions pertaining to Generally Licensed Materials.

2. Training program implemented (x) Y ( ) N
3. Periodic training program required ( ) Y (x) N
4. Periodic training program implemented ( ) Y (x) N
5. Records maintained (x) Y ( ) N

C. Individuals understanding of procedures and Regulations is adequate (x) Y ( ) N

1. Current operating procedures (x) Y ( ) N
2. Emergency procedures (x) Y ( ) N
3. Use of survey instrumentation (x) Y ( ) N

D. Revised Part 20

Workers cognizant of requirements for:

1. Radiation Safety Program [20.1101] (x) Y ( ) N
2. Annual dose limits [20.1301, 1302] (x) Y ( ) N
3. New forms 4 and 5 (x) Y ( ) N ( ) N/A
4. 10% monitoring threshold [20.1502] (x) Y ( ) N
5. Dose limits to embryo/fetus and declared pregnant worker [20.1208] (x) Y ( ) N
6. Grave Danger Posting [20.1902] ( ) Y ( ) N (x) N/A
7. Procedures for opening packages [20.1906] (x) Y ( ) N ( ) N/A
8. Sewer disposal limits [20.2003] ( ) Y ( ) N (x) N/A

**NOTE**: Deficiencies in this area, while not always a violation, should be brought to the attention of licensee management at the exit meeting and in the cover letter transmitting the inspection report or NOV.

Remarks:

The license receives training in much of the above from their suppliers. Much of the above does not pertain to this type of program.

4. INTERNAL AUDITS, REVIEWS OR INSPECTIONS

A. Audits are required [L/C] ( ) Y (x) N
B. Audits or inspections are conducted ( ) Y (x) N

(1) Audits conducted by **The Pres./Owner periodically reviews the inventory and leak test records.**
(2) Frequency **N/A**

C. Content and implementation of the radiation protection program reviewed annually by the licensee [20.1101(c)](x) Y ( ) N
D. Records maintained [20.2102] (x) Y ( ) N

**The Radiation Safety Program was recently reviewed prior to submitting a renewal request in May 1995.**

5. FACILITIES

A. Facilities as described in license application [L/C] (x) Y ( ) N
B. Describe any Self-contained dry-source-storage irradiators [Part 36] and/or survey instrument calibrators (model, radionuclide, activity, use, etc.)(x) N/A

**N/A**

1. Maintenance of safety-related components performed by authorized persons [L/C] ( ) Y ( ) N
2. Access to keys and/or material controlled [20.1801, 1802, L/C] ( ) Y ( ) N
3. Access to high/very high radiation areas controlled [20.1601, 1602, L/C] ( ) Y ( ) N
4. Adequate protection of shield integrity, fire protection [L/C] ( ) Y ( ) N

Remarks:

6. MATERIALS

A. Isotope, chemical form, quantity and use as authorized [L/C] (x) Y ( ) N
B. Licensed materials secured to prevent unauthorized removal or access [20.1801, 1802] (x) Y ( ) N
C. Leak tests and Inventories [L/C]

1. Performed as required (x) Y ( ) N ( ) N/A
2. Adequate analysis methodology and sensitivity (x) Y ( ) N ( ) N/A
3. Records maintained [L/C] (x) Y ( ) N

Remarks:

**Leak tests and inventory are performed at six month intervals. Those that are rented out are leak tested by the client as instructed by the RSO. The tests are sent to TN technology in Round Rock, Texas.**

**See attached inventory and leak test record**

7. RADIATION SURVEYS

A. Instruments and equipment:

1. Appropriate operable survey instrumentation possessed and readily accessible [L/C] (x) Y ( ) N
2. Calibrated as required [20.1501, L/C] (x) Y ( ) N
3. Calibration records maintained [20.2103(a)] (x) Y ( ) N

B. Briefly describe area survey requirements [20.1501(a), L/C]:

**The licensee has no survey requirements. They have access to a number of Ludlum survey instruments as they purchase the instruments for rental to various clients. The instruments are calibrated by Ludlum Instruments prior to sending to the client.**

C. Performed as required [20.1501(a), L/C] **N/A** ( ) Y ( ) N

1. Contamination found **N/A** ( ) Y ( ) N
2. Corrective action taken and documented **N/A** ( ) Y ( ) N

D. Records maintained [20.2103, L/C] **N/A** ( ) Y ( ) N

E. Protection of members of the public

1. Licensee made adequate surveys to demonstrate either (1) that the TEDE to the individual likely to receive the highest dose does not exceed 100 mrem in a year, or (2) that if an individual were continuously present in an unrestricted area, the external dose would not exceed 2 mrem in any hour and 50 mrem in a year [20.1301(a)(1), 1302(b)] (x) Y ( ) N
2. Unrestricted area radiation levels do not exceed 2 mrem in any one hour [20.1301(a)(2)] (x) Y ( ) N
3. Records maintained [20.2103, 2107] (x) Y ( ) N

Remarks:

**The licensee does not possess enough of licensed material to exceed the Part 20 limits.**

8. RADIOACTIVE WASTE (x) N/A

A. Disposal (x) N/A

1. Decay-in-storage (x) N/A

a. Procedures approved [20.2001(a)(2), L/C] ( ) Y ( ) N
b. In accordance with [L/C] ( ) Y ( ) N
c. Labels removed or defaced [20.1904(b)] ( ) Y ( ) N

2. Special procedures performed as required [L/C] ( ) Y ( ) N
3. Liquid scintillation (LS) media and animal carcasses per [20.2005] ( ) Y ( ) N (x) N/A
4. Improper/unauthorized disposals [20.2001] ( ) Y ( ) N
5. Records maintained [20.2103(a), 2108, L/C] ( ) Y ( ) N

B. Effluents (x) N/A

1. Release into sanitary sewer [20.2003] ( ) Y ( ) N (x) N/A

a. Material is readily soluble or readily dispersible [20.2003(a)(1)] ( ) Y ( ) N

b. Monthly average release concentrations do not exceed Appendix B values [20.2003] ( ) Y ( ) N

c. No more than 5 Ci of H-3, 1 Ci of C-14 and 1 Ci of all other radionuclides combined released in a year [20.2003] ( ) Y ( ) N

d. Procedures to ensure representative sampling and analysis properly implemented [20.1501(a)(2), L/C] ( ) Y ( ) N

2. Release to septic tanks [20.2003] ( ) Y ( ) N (x) N/A

a. Within unrestricted limits [App B,Table 2] ( ) Y ( ) N

3. Waste incinerated ( ) Y ( ) N (x) N/A

a. License authorizes [20.2004(a)(3)] ( ) Y ( ) N

b. Licensee directly monitors exhaust ( ) Y ( ) N

c. Airborne releases evaluated and controlled [20.1501, 1701] ( ) Y ( ) N

4. Control of effluents and ashes [20.1201, 1301, 1501, 2001, L/C] {See also IP 87102, RG 8.37} ( ) Y ( ) N

a. Compliance with air emission requirements in Part 20:

Licensee has demonstrated compliance with air emission requirements in 10 CFR 20 (x) Y ( ) N

Basis for compliance determination (circle one or more; provide basis below)

___(1) Measured concentrations of radionuclides in air effluents below App. B, Table 2 concentrations (& external dose < 50 mrem/yr)

___(2) Bounding calculations show that air effluents could not exceed App. B, Tbl 2 concentrations (& external dose < 50 mrem/yr)

___(3) Dose modeling shows that dose equivalent to the individual likely to receive the highest dose does not exceed 10 mrem/yr

_X_(4) Licensee does not possess sufficient RAM to exceed Part 20 requirements

Basis for Determination: **The type of licensed material and the amount possessed would not exceed Part 20 limits**

b. Description of effluent monitoring program

1. Monitoring system hardware equipment adequate ( ) Y ( ) N

2. Equipment calibrated as appropriate ( ) Y ( ) N

3. Air samples/sampling technique (charcoal, HEPA, etc.) analyzed with appropriate equipment ( ) Y ( ) N

C. Waste Management ( ) N/A

1. Waste compacted [L/C] ( ) Y ( ) N
2. Storage area(s) ( ) N/A

   a. Protection from elements and fire [L/C] ( ) Y ( ) N
   b. Control of waste maintained [20.1801] ( ) Y ( ) N
   c. Containers properly labeled and area properly posted [20.1902, 1904] ( ) Y ( ) N
   d. Package integrity maintained [L/C] ( ) Y ( ) N

3. Packaging, Control and Tracking [App. F.III] [20.2006(d)]:

   Note: The licensee's waste is likely to be Class A.

   a. Not packaged for disposal in cardboard or fiberboard boxes [61.56(a)] ( ) Y ( ) N
   b. Liquid wastes solidified, i.e., less than 1% freestanding liquid, and void spaces minimized [61.56(a), (b)] ( ) Y ( ) N
   c. Does not generate harmful vapors [61.56] ( ) Y ( ) N
   d. Structurally stable (will maintain its physical dimensions and form under expected disposal conditions) [61.56(b)] ( ) Y ( ) N
   e. Packages properly labeled [App. F.III.A.2] ( ) Y ( ) N
   f. Licensee conducts a QC program to ensure compliance with [61.55, 56] and includes management evaluation of audits [App. F.III.A.3] ( ) Y ( ) N
   g. Shipments not acknowledged within 20 days after transfer are investigated and reported [App. F.III.A.8] ( ) Y ( ) N ( ) N/A

4. Transfers to land disposal facilities ( ) N/A

   a. Transferred to person specifically licensed to <u>receive waste</u> [30.41, 20.2001(b)] ( ) Y ( ) N
   b. Each shipment accompanied by a manifest prepared as specified in Section I of Appendix F [20.2006(b), App. F.III.A 4] ( ) Y ( ) N
   c. Manifests certified as specified in Section II of Appendix F [20.2006(c)] ( ) Y ( ) N

D. Records of surveys and material accountability are maintained [20.2103, 2108] ( ) Y ( ) N

Remarks:

**The licensee does not have effluents nor an effluent monitoring system.**

9. <u>RECEIPT AND TRANSFER OF RADIOACTIVE MATERIAL</u>

A. Describe how packages are received and by whom: ( ) N/A

**Packages are Ni-63 detectors returned in Gas Chromatograph units and are Limited Quantity shipments. They arrive in the receiving area. Receiving personnel contact the RSO upon receipt of a package with the Limited Quantity Certification attached.**

B. Written package opening procedures established and followed [20.1906(e)] (x) Y ( ) N
C. All incoming packages with DOT labels wiped, unless exempted (gases and special form) [20.1906(b)(1)] (x) Y ( ) N
D. Incoming packages surveyed per [20.1906(b)(2)] (x) Y ( ) N
E. Monitoring in (C) and (D) performed within time specified [20.1906(c)] (x) Y ( ) N
F. Transfer(s) between licensees performed per [30.41] (x) Y ( ) N
G. All sources surveyed before shipment and transfer [20.1501(a), 49 CFR 173.475(i), L/C] (x) Y ( ) N
H. Records of surveys and receipt/transfer maintained [20.2103(a), 30.51] (x) Y ( ) N
I. Transfers within licensee's authorized users or locations performed as required [L/C] (x) Y ( ) N ( ) N/A
J. Arrangements made for packages containing RAM in excess of Type A quantity [20.1906(a)] **N/A** ( ) Y ( ) N
K. Package receipt/distribution activities evaluated for compliance with 20.1301 [20.1302] (x) Y ( ) N ( ) N/A

Remarks:

**The RSO reviews the leak test records prior to shipment to clients. He performs wipe tests to assure that there is no removable contamination on the outer container. Incoming shipments are inspected for damage and surveyed if there is evidence of damage to the inner containers(detectors).**

10. TRANSPORTATION (10 CFR 71.5(a) and 49 CFR 170-189) ( ) N/A

A. Licensee shipments are:

(x ) delivered to common carriers
(x) transported in licensee's own private vehicle
( ) both
( ) no shipments since last inspection

B. HAZMAT training [172.700-704] (x) Y ( ) N
C. Packages (x) N/A

1. Authorized packages used [173.415, 416(b)] ( ) Y ( ) N
2. Performance Test records on file (x) N/A

a. Special Form Sources [173.476(a)] N/A ( ) Y ( ) N
b. DOT-7A packages [173.415(a)] ( ) Y (x) N

3. COCs on file with NRC for Type B [71.12(c)(1)] ( ) Y (x) N
4. Two labels (White-I, Yellow II, Yellow-III) with TI, Nuclide, Activity, and Hazard Class [172.403, 173.441] ( ) Y (x) N
5. Properly marked (Shipping Name, UN Number, Package Type, RQ, "This End Up" (liquids), Name and Address of consignee) [172.301,306,310,312,324] (x) Y ( ) N

6. Closed and sealed during transport [173.475(f)] (x) Y ( ) N

D. Shipping Papers (x) N/A

1. Prepared and used [172.200(a)] ( ) Y ( ) N
2. Proper {Shipping name, Hazard Class, UN Number, Quantity, Package Type, Nuclide, RQ, Radioactive Material, Physical and chemical form, Activity, Category of label, TI, Shipper's Name, Certification and Signature, Emergency Response Phone Number, "Limited Quantity" (if applicable), "Cargo Aircraft Only" (if applicable)} [172.200-204] ( ) Y ( ) N
3. Readily accessible during transport [177.718(e)] ( ) Y ( ) N

E. Vehicles (x) N/A

1. Placarded [172.504] ( ) Y ( ) N
2. Cargo blocked and braced [177.842(d)] ( ) Y ( ) N
3. Proper overpacks (shipping name, UN Number, labeled, statement indicating that inner package complies with specification packaging) [173.25] ( ) Y ( ) N

F. Any incidents reported to DOT [171.15, 16] ( ) Y (x) N

Remarks:

**The licensee ships Limited Quantity shipments that do not require DOT packages, Labels or markings. The shipments are accompanied with the proper certification as required under 49 CFR 173.421-1**

11. PERSONNEL RADIATION PROTECTION

A. Licensee performed exposure evaluation [20.1501] (x) Y ( ) N
B. Licensee incorporated ALARA considerations in the Radiation Protection Program [20.1101(b)] (x) Y ( ) N
C. External Dosimetry (x) N/A

1. Licensee monitors workers [20.1502(a), L/C] ( ) Y (x) N
2. External exposures account for contributions from airborne activity [20 1203] ( ) Y ( ) N (x) N/A
3. Supplier **N/A** Frequency **N/A**
4. Supplier is NVLAP-approved [20.1501(c)] ( ) Y ( ) N
5. Dosimeters exchanged at required frequency [L/C] ( ) Y ( ) N

D. Internal Dosimetry (x) N/A

1. Licensee monitors workers [20 1502(b), L/C] ( ) Y ( ) N
2. Briefly describe licensee's program for monitoring and controlling internal exposures [20.1701, 1702, L/C]:

**N/A**

3. Air sampling performed ( ) Y ( ) N
4. Monitoring/controlling program implemented ( ) Y ( ) N

5. Respiratory protection equipment [20.1703, L/C] ( ) Y ( ) N

E. Reports (x) N/A

1. Reviewed by **N/A** Frequency **N/A**
2. Inspector reviewed personnel monitoring records for period **N/A**
3. Prior dose determined for individuals likely to receive doses [20.2104] ( ) Y ( ) N
4. Maximum exposures TEDE **N/A** Other **N/A**
5. Maximum CDEs **N/A** Organs **N/A**
6. Maximum CEDE **N/A**
7. Licensee sums internal and external [20.1202] ( ) Y ( ) N
8. TEDEs and TODEs within limits [20.1201] ( ) Y ( ) N
9. NRC Forms or equivalent [20.2104(d), 2106(c)]

   a. NRC-4 ( ) Y ( ) N Complete: ( ) Y ( ) N
   b. NRC-5 ( ) Y ( ) N Complete: ( ) Y ( ) N

10. Worker declared her pregnancy in writing during inspection period (review records) ( ) Y ( ) N (x) N/A
    If yes, licensee in compliance with [20.1208] ( ) Y ( ) N
    and records maintained [20.2106(e)] ( ) Y ( ) N

F. Who performed PSEs at this facility (number of people involved and doses received) [20.1206, 2104, 2105, 2204] (x) N/A

**N/A**

G. Records of exposures, surveys, monitoring, and evaluations maintained [20.2102, 2103, 2106, L/C] ( ) Y ( ) N

Remarks:

**The licensee's program does not require dosimetry.**

12. NRC INDEPENDENT MEASUREMENTS

A. Survey instrument Serial No. Last calibration

**A Ludlum Model 3 was used to survey the Ni-63 G. C. storage areas. No radioactivity above background was detected.**

B. Inspector's measurements were compared to licensee's ( ) Y (x) N
C. Describe the type, location, and results of measurements:

**See above**

13. NOTIFICATION AND REPORTS ( ) N/A

A. Licensee in compliance with [19.13, 30.50] (reports to individuals,public and occupational, monitored to show compliance with Part 20) (x) Y ( ) N ( ) N/A
B. Licensee in compliance with [20.2201, 30.50] (theft or loss) ( ) Y ( ) N (x) None
C. Licensee in compliance with [20.2202, 30.50]

(incidents) ( ) Y ( ) N (x) None

D. Licensee in compliance with [20.2203, 30.50] (overexposures and high radiation levels) ( ) Y ( ) N (x) None

E. Licensee aware of NRC Ops Center phone number (x) Y ( ) N

**Personnel are allowed to review any reports pertaining to this program, including the 591 for this inspection.**

14. POSTING AND LABELING

A. NRC-3 "Notice to Workers" is posted [19.11] (x) Y ( ) N

B. Parts 19, 20, 21, Section 206 of Energy Reorganization Act, procedures adopted pursuant to Part 21, and license documents are posted or a notice indicating where documents can be examined is posted [19.11, 21.6] (x) Y ( ) N

C. Other posting and labeling per [20.1902, 1904] and the licensee is not exempted by [20.1903, 1905] (x) Y ( ) N

Remarks:

**The detectors are properly marked.**

15. RECORDKEEPING FOR DECOMMISSIONING ( ) N/A

A. Records of information important to the safe and effective decommissioning of the facility maintained in an independent and identifiable location until license termination [30.35(g)] (x) Y ( ) N

B. Records include all information outlined in [30.35(g)] (x) Y ( ) N

Remarks:

**The facility diagrams, leak tests** and inventory records are all part of a special log.

16. BULLETINS AND INFORMATION NOTICES

A. Bulletins, Information Notices, NMSS Newsletters, etc., received by the Licensee (x) Y ( ) N

B. Licensee took appropriate action in response to Bulletins, Generic Letters, etc. (x) Y ( ) N

Remarks:

**They received various Information Notices and the News Letter. In addition, the inspector left INs that pertained to this program. The Notices dated back to 1987.**

17. SPECIAL LICENSE CONDITIONS OR ISSUES (x) N/A

A. Special license conditions or issues to be reviewed:

B. Evaluation:

18. CONTINUATION OF REPORT ITEMS (x) N/A

19. VIOLATIONS, NCVs, AND OTHER ISSUES (x) N/A

Note: Briefly state (1) the requirement and (2) how and when the licensee violated the requirement. For non-cited violations, indicate why the violation was not cited.

**The licensee did move their facility prior to notifying the Region. The were notified of the requirement in correspondence prior to issuing Amendment 05. The violation was corrected with Amendment 05.**

20. DEBRIEF WITH LICENSING STAFF

A. Inspection findings discussed with licensing (x) Y ( ) N ( ) N/A

Items discussed:

**The inspector informed a reviewer that no violations were identified.**

21. EPA REFERRAL FORM

A. EPA referral form for air effluents sent to appropriate EPA regional office per IP 87102 **N/A** ( ) Y ( ) N

22. PERFORMANCE EVALUATION FACTORS

Licensee (name & location) Inspector **D. R. Gibbons**
**On-Site Instruments**
**404 Enterprise Drive**
**Columbus, OH 43081** Inspection Date **July 20, 1995**

| | | |
|---|---|---|
| A. | Lack of senior management involvement with the radiation safety program and/or Radiation Safety Officer (RSO) oversight | ( ) Y (x) N |
| B. | RSO too busy with other assignments | ( ) Y (x) N |
| C. | Insufficient staffing | ( ) Y (x) N |
| D. | Radiation Safety Committee fails to meet or functions inadequately | ( ) Y ( ) N (x) N/A |
| E. | Inadequate consulting services or inadequate audits | ( ) Y ( ) N (x) N/A |

Remarks (consider above assessment and/or other pertinent PEFs):

Regional follow-up on above PEFs citations:

**Issued Clear 591**

**ATTACHMENT A**

LABORATORY INSPECTION FIELD NOTES

1. Date Authorized User(s)
2. Location(s) Building Room(s)
3. Person(s) Contacted
4. Describe scope of lab use (Nuclides, form, frequency, purpose, etc):

SEE FIELD NOTES

5. Training
   A. Frequency: Conducted by:
   B. Individuals interviewed understand safety practices ( ) Y ( ) N

Remarks:

6. Surveys
   A. Types of surveys performed (daily, weekly, monthly, etc.)
   B. Instrumentation properly calibrated and used ( ) Y ( ) N
   C. Efficiency of counting system determined ( ) Y ( ) N
   D. Hood airflow adequate and checked as required ( ) Y ( ) N ( ) N/A
   E. Records maintained: trigger levels established, area diagram, instrument used, individual performing survey, results in proper units, decontamination performed as necessary, etc.) ( ) Y ( ) N
   F. Inspector surveyed ( ) Y ( ) N
      Results satisfactory ( ) Y ( ) N ( ) N/A

Remarks:

7. Receipt and Transfer
   A. Incoming packages properly surveyed ( ) Y ( ) N
   B. Interlaboratory transfers performed as specified in the license ( ) Y ( ) N ( ) N/A
   C. Records maintained ( ) Y ( ) N

Remarks:

8. Personnel Dosimetry
   A. Appropriate dosimetry assigned and worn ( ) Y ( ) N ( ) N/A
   B. Results available to lab personnel ( ) Y ( ) N
   C. Bioassays performed ( ) Y ( ) N ( ) N/A

Remarks:

9. Handling Waste
   A. Procedures followed ( ) Y ( ) N
   B. Proper storage (area, containers, labeling, etc.) ( ) Y ( ) N
   C. Liquid/solid waste disposal ( ) Y ( ) N

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 7, 1996

ON-SITE INSTRUMENTS INCORPORATED
ATTN: Mr. DAVID P. CHEETHAM
Radiation Safety Officer

404 ENTERPRISE DRIVE
LEWIS CENTER, OH 43035

SUBJECT: ONE-TIME EXTENSION OF LICENSE EXPIRATION DATE
LICENSE NUMBER 34-24437-01, DOCKET NUMBER 3028575

Dear Mr. DAVID P. CHEETHAM

On January 16, 1996, the Nuclear Regulatory Commission (NRC) amended its regulations in 10 CFR 30, 40, and 70 to extend the expiration date of certain byproduct, source, and special nuclear material licenses by five years (61 FR 1109). The above referenced license was extended by this rulemaking and will now expire on July 31, 2000. Your license will not be amended to show this extended date until the next routine licensing action. Until then, you may provide copies of this letter to vendors and other interested parties as evidence that the license has been extended as a result of the rule.

The extended license authorizes the same activities and contains the same limitations as it previously did. There will be no change in the frequency that the NRC inspects activities authorized by this license.

The amended rules state that in the case of licensees who are granted extensions and who have a currently pending renewal application for that extended license, the application will be considered withdrawn by the licensee and any renewal fees paid by the licensee for that application will be refunded. This will apply to licenses with expiration dates after July 1, 1995, for which renewal applications and the appropriate fees have been submitted and the renewal is still pending. Refunds will be mailed to licensees under separate cover.

All licensees, including those whose renewal applications were withdrawn by this rulemaking, who wish to change their radiation safety programs must request amendment of their licenses to reflect these changes. Amendment requests must include the correct amendment fee since the NRC cannot apply pending renewal refund balances toward amendment fees.

If you have any questions regarding this letter, please contact the individual below.

John R. Madera, Division of Nuclear Materials Safety - (708) 829-9834

Thank you for your cooperation in this matter.

Sincerely,

Donald A. Cool, Director
Division of Industrial and Medical Nuclear Safety
Office of Nuclear Materials Safety and Safeguards

A/41

VOID SHEET

TO: License Fee Management Branch

FROM: RIII

SUBJECT: VOIDED APPLICATION

Control Number: 398790

Applicant: ON-SITE INST.

License Number: 34-24437-01

Docket Number: 030-28575

Date Voided: May 10, 1996

Renewal voided due to new extension rule. Voided before review.
Refund due.

D. Hersey 5-10-96
Signature Date

Attachment:
Official Record Copy of
Voided Action

FOR LFMB USE ONLY

✓ Refund Authorized and processed

___ No Refund Due

___ Fee Exempt or Fee Not Required

Comments: _____

Log completed ✓

Processed by: JAC 5/24/96

140263

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9606140404 960510
PDR ADOCK 03028575
C PDR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

MAY 13 1996

# NOTE TO LICENSEES WHO SEND IN RENEWAL PACKAGES

On January 16, 1996, the Nuclear Regulatory Commission (NRC) amended its regulations in 10 CFR 30, 40, and 70 to extend the expiration date of qualified byproduct, source and special nuclear material licenses by five years (61 FR 1109). Your license was extended by this rulemaking and you will soon receive a letter notifying you of this. If a refund is due, this will be handled by the License Fee and Accounts Receivable Branch in our headquarters office. Because of this extension, your renewal package is being returned to you.

Please note that if there are elements within your renewal package that need to be incorporated into your license , you must submit a request for an amendment along with the appropriate fee.

If you have any questions please contact the Region III office at (708) 829-9887.

Thank You - Region III

NRC FORM 313 U. S. NUCLEAR REGULATORY COMMISSION
(10-94)
10 CFR 30, 32, 33
34, 35, 36, 39 and 40

# APPLICATION FOR MATERIAL LICENSE

APPROVED BY OMB: NO. 3150-0120
EXPIRES 6-30-96

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

**INSTRUCTIONS:** SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

**APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:**

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:**

**IF YOU ARE LOCATED IN:**

**CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:**

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

R
030-28575

**ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:**

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

**IF YOU ARE LOCATED IN:**

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

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

**ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:**

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

**PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S.NUCLEAR REGULATORY COMMISSION JURISDICTIONS.**

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*
   - [ ] A. NEW LICENSE
   - [ ] B. AMENDMENT TO LICENSE NUMBER _____
   - [XX] C. RENEWAL OF LICENSE NUMBER 34-24437-01

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip code)*
   On-Site Instruments
   404 Enterprise Drive
   Lewis Center, Ohio 43035

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED
   404 Enterprise Drive
   Lewis Center, Ohio 43035

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION
   David Cheetham

   TELEPHONE NUMBER
   614.846.3022

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL.
   a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
    FEE CATEGORY 3P
    AMOUNT ENCLOSED $ 680.00

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

| CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE | SIGNATURE | DATE |
|---|---|---|
| David Cheetham Vice President | [signature] | 6/26/95 |

## FOR NRC USE ONLY

| TYPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|---|---|---|---|---|---|
| | | | $ | | RECEIVED JUN 26 1995 |
| APPROVED BY | | | | DATE | PM: 6-27-95 |

398790

REGION III



PRINTED ON RECYCLED PAPER

ON-SITE
INSTRUMENTS
Enterprise Drive
Westerville, Ohio 43081
(614) 846-3022
1-800-766-7483
FAX (614) 844-39[illegible]

June 15, 1995

David P. Cheetham
Radiation Safety Officer
614.846.3022

United States Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle,IL 60532-4351

Dear Nuclear Regulatory Commission:

Our materials license number 34-24437-01 is due to expire on July 31, 1995. On-Site Instruments wishes to renew its materials license with the attached deletions and additions. On-Site Instruments requests the material license be renewed as follows:


Columbus, OH • Farmington Hills, MI • Pittsburgh, PA • Englewood, CO • Irvine, CA • Santa Clara, CA
San Diego, CA • Oak Ridge, TN • Houston, TX

July 5, 1995

On-Site Instruments Incorporated
ATTN: David P. Cheetham, Senior Vice President
Radiation Safety Officer
404 Enterprise Drive
Lewis Center, OH 43035

SUBJECT: LICENSE RENEWAL APPLICATION

Dear Mr. Cheetham:

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified and your license number.

Sincerely,

Original Signed By
Marianne Meenan, Chief
Nuclear Materials Support Section

License No. 34-24437-01
Control No. 398790

DOCUMENT NAME: M:\03028575.DT5
To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

| OFFICE | DRSS/RIII | C | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| NAME | MMEENAN:brt | | | | | | | | |
| DATE | 07/5/95 | | | | | | | | |

OFFICIAL RECORD COPY

# DIVISION OF ACCOUNTING AND FINANCE
# REQUEST FOR REFUND TO EMPLOYEE/VENDOR

THE EMPLOYEE/VENDOR IDENTIFIED BELOW HAS OVERPAID THE NUCLEAR REGULATORY COMMISSION FOR GOODS AND/OR SERVICES PROVIDED AND IS DUE A REFUND

**EMPLOYEE/VENDOR/PAYEE CODE:** _____

**NAME:** Ox-Site Instruments

**ADDRESS:** Attn: David Cheetham, Vice President

**ADDRESS:** 404 Enterprise Drive

**CITY:** Lewis Center **STATE:** OH **ZIP:** 43035

**TRANS CODE:** PX

| | | | |
|---|---|---|---|
| TRANS TYPE: FE | FUND: X5280 | JOB CODE: | AMOUNT: $680.00 |
| TRANS TYPE: IR | FUND: R1435 | JOB CODE: INTR | AMOUNT: |
| TRANS TYPE: IR | FUND: R1099 | JOB CODE: ADCH | AMOUNT: |
| TRANS TYPE: IR | FUND: R1099 | JOB CODE: FINE | AMOUNT: |

**TOTAL REFUND AMOUNT:** $680.00

**COMMENTS:** LIC 34-24437-01 XTND PER RLMKNG

CK 22738

(limit comments to 40 characters, including spaces)

**PREPARED BY:** Shirley Crutchfield **DATE:** May 24, 1996

**AUTHORIZED BY:** Sandra Kimberly **DATE:** 6/7/96

**ORIGINAL INV. NO:** _____ **DATE PAID:** _____ **AMOUNT:** _____

**REFUND ENTERED INTO COLLECT BY:** _____

**REFUND DETERMINED BY:** _____ **DATE:** _____

Jul 5 III
3P 22738 6/27/95 $680
REN 398790 **PLEASE ATTACH APPROPRIATE SUPPORTING DOCUMENTATION**

U. S. NUCLEAR REGULATORY COMMISSION

S6

# APPLICATION FOR MATERIAL LICENSE

Approved by OMB: NO. 3150-0120
EXPIRES 6-30-96

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 8 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

A

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

030-28575

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*
   - [ ] A. NEW LICENSE
   - [x] B. AMENDMENT TO LICENSE NUMBER 34-24437-01
   - [ ] C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip code)*
   On-Site Instruments, Inc.
   404 Enterprise Drive
   Lewis Center, Ohio 43035

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED
   404 Enterprise Drive
   Lewis Center, Ohio 43035

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS
   Larry R. Cheetham
   TELEPHONE NUMBER
   614.846.3022

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL.
   a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

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8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
    FEE CATEGORY 3P
    AMOUNT ENCLOSED $ 340.00

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

| CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE | SIGNATURE | DATE |
|---|---|---|
| Larry R. Cheetham President | | 8/26/98 |

**FOR NRC USE ONLY**

| TYPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|---|---|---|---|---|---|
| | | | $ | | |
| APPROVED BY | | | | DATE | |

pm: 8/31/98

RECEIVED
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REGION III

A/43

NRC FORM 313 (10-94)

~~304348~~ 304348

SEP 0 1 1998

U. S. N[illegible]AR REGULATORY COMMISSION

[illegible]and 40

# APPLICATION FOR MATERIAL LICENSE

PROVED BY OMB: NO. 3150-0120
EXPIRES 6-30-98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 8 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

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LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

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1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [x] B. AMENDMENT TO LICENSE NUMBER 34-24437-01
- [ ] C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip code)*

On-Site Instruments, Inc.
404 Enterprise Drive
Lewis Center, Ohio 43035

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

404 Enterprise Drive
Lewis Center, Ohio 43035

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS

Larry R. Cheetham

TELEPHONE NUMBER
614.846.3022

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL.
a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY 3P
AMOUNT ENCLOSED $ 340.00

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

| CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE | SIGNATURE | DATE |
|---|---|---|
| Larry R. Cheetham President | | 8/26/98 |

**FOR NRC USE ONLY**

| TYPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|---|---|---|---|---|---|
| | | | $ | | pm 8/31/98 |
| APPROVED BY | | | | DATE | |

RECEIVED
SEP 0 1 1998
REGION III

A/44

NRC FORM 313 (10-94)

~~304558~~ 304348

Casey

U. S. NUCLEAR REGULATORY COMMISSION

Form 313 and 40

S6

# APPLICATION FOR MATERIAL LICENSE

APPROVED BY OMB: NO. 3150-0120
EXPIRES 6-30-94

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

**INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.**

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

A

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

030-28575

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

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

Scribble copy

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*

- [ ] A. NEW LICENSE
- [x] B. AMENDMENT TO LICENSE NUMBER 34-24437-01
- [ ] C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip code)*

On-Site Instruments, Inc.
404 Enterprise Drive
Lewis Center, Ohio 43035

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

404 Enterprise Drive
Lewis Center, Ohio 43035

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS

Larry R. Cheetham

TELEPHONE NUMBER
614.846.3022

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL.
a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY 3P
AMOUNT ENCLOSED $ 340.00

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE: Larry R. Cheetham President

SIGNATURE

DATE 8/26/98

**FOR NRC USE ONLY**

| TYPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|---|---|---|---|---|---|
| | | | $ | | |
| APPROVED BY | | | | DATE | |

pm: 8/31/98

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SEP 01 1998
REGION III

NRC FORM 313 (10-94)

~~300348~~ 304348

SEP 01 1998

03531

**ON-SITE INSTRUMENTS**
404 ENTERPRISE DRIVE
LEWIS CENTER, OHIO 43035
614-846-3022

AA905 AMD 3P
Sept 4 III

FIFTH THIRD BANK
LEXINGTON, KENTUCKY
73-119/421

DATE 8/26/98

AMOUNT $340.00

PAY TO THE ORDER OF US Nuclear Regulatory Commission

Three hundred forty dollars and no/100

Jamie Bellney

VOID AFTER 90 DAYS

⑈003531⑈ ⑆042101190⑆ 826⑈10274⑈

SECURITY FEATURES: MICRO PRINT TOP & BOTTOM BORDERS - COLORED PATTERN - ARTIFICIAL WATERMARK ON REVERSE SIDE - MISSING FEATURE INDICATES A COPY

30434 8

DX 6

ON-SITE®
INSTRUMENTS
Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL

August 23, 1998

Colleen Casey
UNITED STATES NUCLEAR REGULATORY COMMISSION
Region 3
801 Warrensville Road
Lisle, IL 60532-4351

Dear Colleen:

Please be advised that David P. Cheetham, the designated RSO on our Material License, number 34-24437-01, is no longer with our organization. I am requesting the David be removed from our license at this time. My name is also listed on the current license and I am currently the acting RSO. I have attached a training certificate for your review. If there are any other requirements for or amendments to our license please contact me at your earliest convenience. I can be reached at 614-846-3022.

Very truly yours,

On-SITE INSTRUMENTS, INC.

Larry R. Cheetham
President

A/45

RECEIVED
AUG 28 1998
REGION III

304348



PM: 8/25/98

AUG 28 1998

# Certificate of Training

This Certifies That

## *Larry R. Cheetham*

has successfully completed the 40-hour course of instruction for

# Radiation Safety Officer

August 10-14, 1998

Presented By

*CSI-Radiation Safety Training*
3827 Farragut Avenue
Kensington, Maryland 20895

in association with

Radiation Service Organization, Inc.
Post Office Box 1526
Laurel, Maryland 20725

Ray Johnson

Raymond Johnson, C.H.P., P.E.
Training Director

ON-SITE
INSTRUMENTS
404 Enterprise Drive
Lewis Center, Ohio 43035
(614) 846-3022
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FAX (614) 844-3994

August 31, 1998

Colleen Casey
UNITED STATES NUCLEAR REGULATORY COMMISSION
Region 3
801 Warrensville Road
Lisle, IL 60532-4351

Dear Colleen:

As we discussed in our recent telephone conversation, both David P. Cheetham and James Kotopka are no longer working for my company. I attended a radiation safety course in August 1998 and wish to be the company R.S.O.. A copy of my certificate is enclosed for your files. ON-SITE INSTRUMENTS, INC., requests that the NRC amends our materials license, 34-24437-01, as follows:

**Item 1. This application is for:**
Subitem B: Amendment to license number 34-24437-01.

**Item 2. Name and Mailing Address of Applicant:**
ON-SITE INSTRUMENTS, INC.
404 Enterprise Drive
Lewis Center, Ohio 43035

**Item 3. Address where licensed material will be used or possessed:**
404 Enterprise Drive
Lewis Center, Ohio 43035

A monthly inventory will be performed of cells in inventory at ON-SITE INSTRUMENTS, INC. (OSI). When an ECD cell is transferred from the manufacturer, OSI is responsible for the safe use and storage of the material until we have transferred the material back to the original owner or a licensed disposal facility. A quarterly report will be sent to the Nuclear Regulatory Commission's Director of Nuclear Material Safety and Safeguards, specifying the location of cells that have been rented, leased or sold, and are not at the 404 Enterprise location.

A/46

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INSTRUMENTS
[illegible] Drive
[illegible] Center, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

well OSI be leasing + renting or will have other company do that?

Does any understand what this means?

OSI shall be licensed to distribute ECD cells to our rental customers who shall be required, at a minimum, to be generally licensed pursuant to 10 CFR §31.5, prior to transfer of the ECD Cells. Prior to any transfer, the purchaser or rental customer shall submit proof of either a general or specific license. Rental customers who receive the ECD cells installed in gas chromatographs from OSI shall be governed by the transfer restrictions described in 10 CFR §30.41. Customers renting, leasing to purchase or purchasing ECD's will receive the Hewlett-Packard's publication: "Information for General Licensees" (#43-5953-1798), which contains 10 CFR §20.402, 20.403, 30.34, 30.51-30.53, 30.61-30.63, 31.5, and 49 CFR §§ 173.42-173.423; instructions of theory, use maintenance, radioactivity leak tests, and procedures for incident reporting. Customers leasing or purchasing gas chromatographs with ECD detectors must affirm, in writing, that they will abide with regulations listed in 10 CFR §§ 20.402, 20.403, 30.51, 30.61-30.63, 31.5 and 49 CFR §§ 173.421-173.423, and provide a copy of their license to OSI prior to the transfer from OSI. Customers will also receive the following notice:

what about for other vendors G.C.'s

No!

**ON-SITE INSTRUMENTS, INC.**
**Electron Capture Detector Information Sheet**

Enclosed is Hewlett-Packard's Publication: "Information for General Licensees" (#43-5953-1798). The information in it is summarized below, however, the US Nuclear Regulatory Commission (NRC) requires you to be familiar with the information in it.

Electron Capture Detectors (ECD) we distribute contain a $^{63}Ni$ radioactive source, which is electroplated onto the inner surface of the detector cell body. $^{63}Ni$ has a half life of 101.1 years, and a maximum activity of 15 mCi; 65.87 KeV emission of ß radiation.

The NRC license of On-Site Instruments, Inc., provides that you must have an existing General License or Specific License prior to renting, leasing or purchasing from OSI and must provide proof of such license prior to transfer and shipment from OSI. It is your responsibility, if necessary, to register with the regulatory agency of the state where the ECD is used, if that state is an "Agreement State".

No!

You may not:

1.) Open the detector cell.
2.) Modify the cell in any manner.
3.) Use any solvent, including water, to clean the cell.
4.) Interfere with or attempt to defeat the overheat circuitry supplied with the detector.
5.) Remove or deface the identification tag attached to the cell.

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[illegible] Drive
[illegible] Center, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

You are required to:

1.) Perform a radioactivity leak test every six months. OSI will pay for the analysis of the wipe samples, if you are renting or leasing the cell from OSI, when the wipe test is required.
2.) Be able to report to OSI, at any time, the location of each ECD.
3.) Maintain records as required by the NRC.
4.) Notify the NRC and OSI in case of any incidents or failure which might lead to a hazardous condition.

**Item 4. Name of person to be contacted about this application:**
Larry R. Cheetham, telephone number (614-846-3022), Fax (614-844-3990)

**Item 5. Radioactive materials:**

a.) Elements and mass numbers

Nickel-63 ($^{63}Ni$)

b.) Chemical and physical forms:

Assembled detectors containing plated source in enclosed, sealed cell (Electron Capture Detector Cells; Hewlett-Packard model Numbers 19233 or G1223A and Varian model number 02-001972-00). Most cells will be Hewlett-Packard models.

c.) Maximum amount to be possessed at one time:

at his ? ? location for rentals, etc? → No, he must assume the responsibility for OSI. Clarify! transferred

No single cell or standard is to exceed 15 millicuries each. The total activity of all cells is to be less than 5 curie or approximately 330 cells. Hewlett-Packard and Varian have assume responsibility for cell decommissioning.

exclude Item 5c, Third sentence.

**Item 6. Purposes for which licensed material will be used:**
To be used in Hewlett-Packard and Varian gas chromatographs which will be rented, leased and sold throughout the United States for sample analysis. These systems containing electron capture detectors will be governed by Hewlett-Packard's and Varian's general licenses or by specific licenses. OSI will also perform sample analysis at it's location, or may temporarily transport the detector cells to do analysis at a customer's location.

ON-SITE
INSTRUMENTS
404 Enterprise Drive
Lewis Center, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

**Item 7. Individuals responsible for maintaining radiation safety program, and their training and experience:**

**RADIATION SAFETY OFFICER**

Larry R. Cheetham
ON-SITE INSTRUMENTS, INC.
404 Enterprise Drive
Lewis Center, Ohio 43035

Professional Experience

*Supervised SMI Mobile Lab at DOE Portsmouth Uranium Enrichment Plant (RCRA Facility Investigation 1991-1994)
*Supervised SMI mobile lab at Wright Patterson AFB (1/93 to 6/93)
* Extensive experience with laboratory and direct reading instruments.

Training

* DOE Radiation Protection Training at DOE Portsmouth Uranium Enrichment Plant (January 1991-1994)
* 40 hour OSHA Training (29 CFR 1910.120) August 1987
* 8 hour OSHA Supervisor Training
* 40 hour OSHA Training Instructor
* 40 hour Radiation Safety Officer Training (CSI Radiation Safety Training, August 98)

Education

Capital University, Bexley, Ohio
Bachelor of Science, Biology, 1979

**********

**AUTHORIZED MATERIALS USER**

Mitchell G. Baker
On-Site instruments
404 Enterprise Drive
Lewis Center, Ohio 43035

Professional Experience

*Operated SMI Mobile Lab at DOE Portsmouth Uranium Enrichment Plant (RCRA Facility Investigation 1991-1994)
*Operated SMI mobile lab at Wright Patterson AFB (1/93 to 6/93)
* Extensive experience with laboratory and direct reading instruments.
* Previously employed at SEA Environmental and Chemical Laboratory and qualified in EPA methodology; SW-846, 8240 (BTEX), PCB's, TPH gas chromatography (FID and ECD).

-SITE
ENTS
...er, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

Training

* DOE Radiation Protection Training at DOE Portsmouth Uranium Enrichment Plant (January 1991-1994)
* 40 hour OSHA Training (29 CFR 1910.120) August 1987
* 8 hour OSHA Refresher Training
* Over 1 day OSI radiation training, including wipe test procedures.
* Hewlett-Packard gas chromatography training (including ECD).

Education

Wright State University, Dayton, Ohio
Bachelor of Science, Environmental Health, 1992

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

**AUTHORIZED MATERIALS USER**

Carlo Recinella
On-Site instruments
404 Enterprise Drive
Lewis Center, Ohio 43035

Professional Experience

* Manages OSI's instrument service department last 2 years
* Extensive experience with laboratory and direct reading instruments.

Training

* Over 1 day OSI radiation training, including wipe testing procedures.
* OSI radiation meter operation and calibration training.

Education

Ohio State University, Columbus, Ohio
Bachelor of Science, Biology, 1993

**Item 8. Training for individuals authorized to work with electron capture detectors:**

In addition to supervision by the radiation safety officer, a one day training course will be provided by Larry R. Cheetham to instruct authorized users working with electron capture detectors on proper storage, transfer or use of radioactive materials. Authorized users shall be instructed in the basic principals and fundamentals of radiation safety and proper safety practices related to OSI's use of radioactive materials. This instruction shall include the purpose for which radiation detection devices will be used, a review of OSI's operating, safety and emergency procedures, specific instructions in precautions and procedures to minimize exposure to radiation and radioactive materials (ALARA), health protection problems associated with exposure to radioactive materials, proper techniques for determining the amount of radioactivity, wipe test procedures, proper shipping and receiving procedures, and decontamination techniques and procedures. Authorized users must complete this

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INSTRUMENTS
[illegible] Drive
[illegible] Center, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

training course prior to working with electron capture detectors. Attendance and completion of the course shall be documented.

**Item 9. Facilities and equipment:**

The use, storage and maintenance of radioactive materials shall remain in restricted areas at 404 Enterprise Drive, Lewis Center, OH 43035. All restricted areas shall be posted using conventional radiation caution colors ( magenta or purple on yellow background) as provided in Section 20.203 (a) (1), of 10 CFR Part 20. In addition, all detector cells and cell baths, containing licensed material and used in gas chromatography devices shall be labeled with conspicuously etched or stamped radiation caution symbols without a color requirement. During normal operations, exhaust from detectors cells containing licensed material shall be vented through a laboratory fume hood or other suitable means designed to reduce potential exposure to personnel to the lowest possible level.

20.1902
20.1904
20.1901 (b)

All repairs and maintenance to electron capture detectors shall be performed exclusively by Larry R. Cheetham, the radiation safety officer. All repairs and maintenance to electron capture detectors shall be limited and restricted to an area designated as a radiation area. The radiation area shall be locked at all times to prevent unauthorized access. The radiation area shall be posted, "Caution Radiation Area", using conventional radiation caution colors ( magenta or purple on yellow background) as provided in Section 20.203 (a) (1), of 10 CFR Part 20. All repairs and maintenance to detector cells incident to cleaning and repair of detector cells shall be conducted within a Lucite H.E.P.A. filtered laboratory hood of sufficient thickness to provide effective radiation shielding to personnel. The hood shall contain a designated "hot sink" for final disposal of diluted radioactive materials and be posted using conventional radiation caution colors ( magenta or purple on yellow background) as provided in Section 20.203 (a) (1), of 10 CFR Part 20. All cell baths or vessels containing licensed material shall be labeled using conventional radiation caution colors ( magenta or purple on yellow background) as provided in Section 20.203 (a) (1), of 10 CFR Part 20. Radiation monitoring shall be required in the radiation area as provided in 10 CFR 20.1501 and 10 CFR 20.1502.

appears to be incorporated posting
see 20.1902(a) + 20.1003

need detail
definitely
not needed

**Item 10. Radiation Safety Program:**

**Restricted Areas:**

Personnel Monitoring Equipment: Except as required by 10 CFR 20.1501 and 10 CFR 20.1502, personnel monitoring equipment will not be required for OSI employees working in the areas designated as "restricted areas" since the Ni-63 radiation source is a sealed source. OSI restricted areas require mandatory personnel protective equipment including, but not limited to, safety glasses, lab coats and hand protection. All personnel who do not work with electron capture detectors but are

ON-SITE INSTRUMENTS
Enterprise Drive
Lewis Center, Ohio 43035
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1-800-766-7483
FAX (614) 844-3994

assigned to a restricted area must attend OSI 's basic radiation training course.

**Radiation Areas:**
Personnel monitoring equipment will be required for OSI employees working in the areas designated as "radiation area" as provided in 10 CFR 20.1501 and 10 CFR 20.1502. Radiation areas require mandatory personnel protective equipment including, but not limited to, safety glasses, lab coats and hand protection. Surveys shall be performed as required in 10 CFR 20.1501 and 10 CFR 20.1502. no E/D, Smoking storage of food or drinks.

**Item 11. Waste Management:** Waste management will be conducted in accordance with 10 CFR Sections 20.2001, through 20.2007.

**Item 12. Changes in current materials license:**

1. Item 2. Address of licensee should read:
   404 Enterprise Drive
   Lewis Center, Ohio 43035
2. Section 9-A. Authorized use: For possession incident to cleaning and repair of detector cells. For use as a gas chromatography detector. For redistribution of detector cells to individuals specifically licensed and to individuals generally licensed pursuant to 10 CFR 31.5, in accordance with 10 CFR 32.51.
3. Section 10. Licensed material shall be used at the licensee's facilities located at 404 Enterprise Drive, Lewis Center, Ohio 43035, or in temporary mobile laboratory facilities under the supervision of Larry R. Cheetham or use by Mitchell Baker or Carlo Recinella.
4. Section 11. Licensed material shall be used by, or under the supervision of, Larry R. Cheetham, Mitchell Baker or Carlo Recinella.
5. Section 19-B. Section 19-B should be deleted in it's entirety. — no can do.

**Item 13.** Licensee Fee:
Fee Category: 3P $340.00 for Amendment to License #34-24437-01.
Check #3531 dated 8/26/98 enclosed for $340.00.

On-Site Instruments, Inc.

Larry R. Cheetham
President

# Certificate of Training

This Certifies That

## *Larry R. Cheetham*

has successfully completed the 40-hour course of instruction for

# Radiation Safety Officer

**August 10-14, 1998**

Presented By

***CSI-Radiation Safety Training***
3827 Farragut Avenue
Kensington, Maryland 20895

in association with

Radiation Service Organization, Inc.
Post Office Box 1526
Laurel, Maryland 20725

Ray Johnson

Raymond Johnson, C.H.P., P.E.
Training Director

DATE: 9/2/98

CORRESPONDENCE CLARIFICATION SHEET

9/30/98 to S6

REVIEWER: MONTE PHILLIPS/SANDY FRAZIER

LICENSEE: On-Site Instruments, Inc.

LICENSE NUMBER: 34-24437-01

The following correspondence has been received from the above licensee and it is not clear what action(s) is(are) required: Please review this correspondence and indicate which of the following applies, and please return to Debbie Hersey, or Ryan Te, as soon as possible.

☐ Additional Information to Control No. _____. Process in as a new action, additional information, and no fee required.

☐ Process as new licensing action. Review has already been started on Control No._____ and this information cannot be combined with current in-house action.

☐ Can be combined with Control No. _____. Review has not started.

☐ Appears to be information for the license file - file it.

☐ Licensee is adding Nuclear Pharmacists.

Amendment is necessary _____. Amendment is not necessary _____. (Information for license file)

☐ Licensee is adding authorized users.

A check is included _____. No check is included _____.

Amendment is necessary X. Amendment is not necessary _____. (This is a Notification)

☒ Process in as a new licensing action:

A. Amendment X
B. Renewal _____
C. New License Application _____

☒ Other: Changing RSO

to Colleen!!

Thank You For Your Help!!! 01/28/98

OK

A/47

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

September 3, 1998

Larry R. Cheetham, RSO
On-Site Instruments Incorporated
404 Enterprise Drive
Lewis Center, OH 43035

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE
(Letter Dated August 23, 1998)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

__ New License X Amendment _ Renewal
__ Termination __ Auth User (Amendment not required)
__ Other_____

No administrative deficiencies were identified during this initial review. However, it should be noted that a technical review may identify omissions in the submitted information.

It appears that your request is routine (see 1-3 below, as applicable).

1. New and amendment actions are normally completed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance. You are required to provide your taxpayer identification number to our Fees Department. Please fill out the enclosed NRC Form 531.

2. Renewal actions are normally completed within 180 days, however, under timely filing (before expiration), you may continue to operate under your existing license.

3. Termination actions are normally completed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount, if required.

We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number. Please direct any questions concerning your request to the Materials Licensing Branch at (630) 829-9887.

Materials Support Branch

Mail Control No. 304348
License No. 34-24437-01

A/48

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE
INFORMATION FRO S

Program Code: 03240
Status Code: 0
Fee Category: 3P
Exp. Date: 20000731
Fee Comments:
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
Applicant/Licensee: ON-SITE INSTRUMENTS INCORPORATED
Received Date: 980828
Docket No: 3028575
Control No.: 304348
License No.: 34-24437-01
Action Type: Amendment

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2. FEE ATTACHED
Amount: 340
Check No.: 03531

3. COMMENTS

Signed D. Hersey
Date 9-3-98

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /✓/)

1. Fee Category and Amount: 3P #340

2. Correct Fee Paid. Application may be processed for:
Amendment ✓
Renewal
License

3. OTHER

Signed SC
Date 9/8/98

Log Dept 4 III
Remitter
Check No. 3531
Amount #340
Fee Category 3P
Type of Fee AMD
Date Check Rec'd 9/8
Date Completed 9/8/98
By: SC

1998 SEP -8 PM 5:03

49
A/40

OPTIONAL FORM 99 (7-90)

TELEPHONE CONVERSATION RECORD

**FAX TRANSMITTAL**

# of pages ▶ 15

| | |
|---|---|
| To LARRY CHEETAM | From COLLEEN CASEY |
| Dept./Agency OSI | Phone # 630-829-9841 |
| Fax # 614-844-3990 | Fax # 630-515-1259 OR 1078 |

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

TIME: VARIOUS | DATE: 8/23, 8/26, 10/20? 11/24/98

☒ TELEPHONE
☒ INCOMING
☒ OUTGOING

| ROUTING | |
|---|---|
| NAME/SYMBOL | INT |
| | |
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| | |
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| | |
| | |

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU: Larry Cheetham

ORGANIZATION (office, dept., bureau, etc.): Onsite Instruments, Inc.

TELEPHONE NO: 614-846-3022

SUBJECT: C/N 304348, Lic. No. 34-24437-01
Application dtd 8/26/98, ltr dtd 8/31/98, ltr. dtd 8/23/98

SUMMARY: We need additional information and clarification as follows:

1. Larry Cheetam's name does not appear on the license yet. The last renewal was returned to David Cheetam and the license expiration extended per rulemaking in 1995-1996.
2. See attached sheets, note pen + ink changes, questions marked. It appears that you have requested licensure for OSI that will cover proposed activities for another company you own, SMI. Please correct/delete/clarify/explain as appropriate.
3. It appears that your license is incomplete with respect to safety procedures for cleaning + repairing ECD cells. See guidance excerpts and notations attached.
4. Please delete all references to activities for SMI, as appropriate.

A copy of NUREG 1556, Vol. 7, Draft is being sent to you.
— OK to VOID until response submitted - Rome.

Please call Colleen C. Casey to discuss further: 800-522-3025 or 630-829-9841.
Address written response to my attention and mail to USNRC-Region III, 801 Warrenville Road, Lisle, IL 60532-4351. Reference Control No. 304348!

Please respond in 15-30 days or sooner to resolve compliance issues via licensure. Thanks.

| SIGNATURE | TITLE | DATE |
|---|---|---|
| Colleen C. Casey | License Reviewer | Nov. 24, 1998 |

CONVERSATION RECORD

A/50

Larry: I will send another copy of 1556 Vol. 7 draft NUREG to you - Collen



# Gas Chromatography Devices and X-ray Fluorescence Analyzer Applications

This appendix is designed either to assist the applicant with obtaining a separate license for a gas chromatograph (GC) and/or an x-ray fluorescence analyzer (XRF) or to be used as part of a license application that may contain other requested radioisotopes and proposed uses.

## Regulations

Licensees are subject to all applicable provisions of the regulations in 10 CFR Parts 20, 21, 30, 71, 170 as they pertain to GC and XRFs.

Information for completing Items 1 through 4 of the application have already been provided in this NUREG.

Additional information for Item 3 is requested below.

**Item 3: Address(es) Where Licensed Material Will Be Used or Possessed**

Specify the street address, city, and state or other descriptive address (e.g., on Highway 10, 5 miles east of the intersection of Highway 10 and State Route 234, Anytown, State) for each facility at which licensed material will be used or stored. A Post Office Box address is not acceptable. In addition, state whether GC/XRFs will be used at temporary jobsites.

**Item 5: Material to Be Possessed**

1 Provide the radioisotopes(s) that will be used in each GC/XRF.

2. Provide the manufacturer and model number of the detector cell, foil source, plated source, or sealed source that will be used in each GC/XRF.

3. Specify the quantity (activity) of radioactive material that will be in each foil source, plated source, or other sealed source. Provide the number of sources of each foil source, plated source or sealed source that will be possessed, if known. If the total number for each type of source is unknown, provide an anticipated total.

> *Note:* GCs that contain titanium tritide foils or scandium tritide foils require operating temperature control mechanisms and venting to the outside. Provide information on operating temperature controls and venting information with the application, if these kinds of foils are requested in the application. See license condition no. 15 of the sample GC at the end of this appendix.

**Item 6: Purpose For Which Licensed Material Will Be Used**

Clarify and withdraw previous statements pertaining to work SMI would do.

Specify the purpose for which each GC/XRF will be used.

**Item 7: Individual(s) Responsible For Radiation Safety Program And Their Training And Experience - Radiation Safety Officer**

Provide the name of the person(s) who will be responsible for the GCs/ XRFs. That person(s) will be specifically named on the license.

If no repair or maintenance on the GC/XRFs is proposed by the applicant, then no specific training and experience in the use and handling of radioactive materials is necessary for individuals who will use the device(s) or supervise its use. No special training or experience is needed to perform leak tests using a leak-test kit or to clean detector cells used in GC devices, provided the source or foil is not removed from the detector cell.

BUT

If the applicant proposes to perform any operations that involve removal of sources containing radioactive material from the device or maintenance and repair of a device that involves the source, only a "responsible individual" may perform these operations. The responsible individual shall have received instruction and training in the principles and practices of radiation safety, the use of radiation detection instruments, and the performance of these operations. Such training may normally be accomplished in 1 or 2 days. In the application, provide the following information.

- The specific operations and procedures that will be performed - Need
- The name of each responsible individual who will perform the operations - ok.
- An outline of the instruction and training each responsible individual has received in the principles and practices of radiation safety, the use of radiation detection instruments, and the operations that will be performed, including actual practice in performing the operations. The amount of time spent on each topic in the training should be specified. Need
- The name and affiliation of the individual who will provide the training and his or her qualifications to conduct the training. Need

**Item 8: Training Provided to Other Users**

Persons who will only use a GC or XRF under the supervision of the responsible individual named in Item 7 need no special training, and their names do not need to be submitted. These individuals shall not be permitted to perform any maintenance or repair operations. Only responsible individuals specifically named in Item 7 shall perform such operations.

Clarify Mitch Baker and Carlo Recinella's roles as authorized users - will they actually work for OSI or only for SMI (when you get new license)?

Need **Item 9: Facilities And Equipment** Please address all!

10 CFR 30.33(a)(2) states that an application will be approved if the applicant's proposed equipment and facilities are adequate to protect health and to minimize danger to life or property. 10 CFR 20.1801 and 20.1802 also state that licensed material stored in an unrestricted area must be secured from unauthorized removal, and licensed materials in an unrestricted area and not in storage must be under the constant surveillance and immediate control of the licensee.

The room, laboratory, or storage area in which the device is located should be (1) accessible only to persons authorized to use the device and (2) locked when an authorized person is not physically present. The application should state that the laboratory or area will be locked or secured when an authorized person is not present. The room, laboratory, or storage area cannot be considered a restricted area if it is accessible to unauthorized persons.

**Item 10: Radiation Safety Program**

**10.1 Audit Program** Need

Licensees must review the content and implementation of their radiation protection programs annually, to ensure compliance with NRC regulations and with the terms and conditions of the license. Appendix J contains a suggested audit program that is acceptable to NRC. All areas indicated in Appendix J may not be applicable to every licensee and may not need to be addressed during each audit.

**10.2 Radiation Detection Instruments**

Need

A survey meter for routine uses of GC/XRF is not required.

But: If maintenance and repair operations are proposed and described in Item 7, and the operations involve the sealed source, provide information about what surveys will be performed, what type of survey meter will be used for conducting surveys, the range of the survey instrument, and calibration information including frequency of calibration. It is not necessary to specify the manufacturer and model number of the survey meter. For more information on survey meters, see "Radiation Safety Program - Instruments," in the main body of this NUREG.

**10.3 Material Receipt and Accountability**

Need

Licensees are required to maintain records of receipt, transfer, and disposal of licensed material. Loss, theft, or misplacement of licensed material can occur; therefore, control and accountability of GC/XRFs must be ensured. Licensees who use and/or possess sealed sources are required by license conditions to perform inventories of sealed sources every six months (see sample license, condition no. 15). Some sealed sources may not be in use or are rarely used and are placed in

storage. In these cases, licensees should confirm that these sealed sources have not been disturbed at least every 6 months.

### 10.4 Personnel Monitoring Equipment

Personnel monitoring devices are not required for the following:

- Routine use and normal operation of GC/XRFs
- Maintenance and repair operations described in Item 7, if the radiation source in the GC/XRF is in a gaseous form or is nickel-63 (Ni-63).

Do not need for Ni-63 only

If proposed uses of GC/XRFs include the maintenance and repair operations described in Item 7, and these operations involve sealed sources other than in gaseous form or Ni-63, an evaluation for personnel monitoring devices is required for persons performing these operations.

The application should indicate that maintenance and/or repair personnel will be provided with either film badges or Thermoluminescence dosimeters (TLD) for use while performing service operations or provide a dose evaluation which indicates that personnel will not be required to wear monitoring devices.

### 10.5 Leak-Testing

Please clarify your intended leak tests for OSI only.

NRC requires testing to determine whether there is any radioactive leakage from sealed/plated foil sources. Records of surveys and leak tests results must be maintained.

When issued, a license will require performance of leak tests of sealed/plated foil sources at intervals as approved by NRC or an Agreement State and specified by the SSD Registration Certificate. The measurement of the leak-test sample is a quantitative analysis requiring that instrumentation used to analyze the sample be capable of detecting 185 Bq (0.005 mCi) of radioactivity.

Manufacturers, consultants, and other organizations may be authorized by NRC or an Agreement State either to perform the entire leak test sequence for other licensees or to provide leak test kits to licensees. In the latter case, the licensee is expected to take the leak test sample according to the sealed source or plated foil manufacturer's (distributor's) and the kit supplier's instructions and return it to the kit supplier for evaluation and reporting results. Leak test samples should be collected at the most accessible area where contamination would accumulate if the sealed source were leaking. Licensees may also be authorized to conduct the entire leak test sequence themselves. For more information about leak testing sealed/plated foil sources, see "Radiation Safety Program - Surveys," in the main body of this NUREG.

**10.6 Maintenance and Repair** Need: Read this carefully we are not requesting proprietary information.

If authorization has been requested to perform the maintenance and repair operations described in Item 7, state in the application that the written procedures provided by the device manufacturer will be followed for each such operation requested. If a procedure will be followed other than that provided by the device manufacturer, submit a proposed procedure to use for each operation requested.

address only as it applies to OSI

**10.7 Transportation** Need

If authorization has been requested in the application to use GC/XRFs at a temporary jobsite, the applicant must take into consideration DOT regulations, particularly blocking and bracing the device containing licensed material. The applicant is not required to submit transportation information with the application.

Wipe test survey after cleaning or repairing ECD cells must be performed. (10CFR20.1501)

Need

**10.8 Minimization of contamination**

New license applicants are required by 10 CFR 20.1406 to describe how facility design and procedures for operation will minimize, to the extent practicable, contamination of the facility and the environment, facilitate eventual decommissioning, and minimize, to the extent practicable, the generation of radioactive waste. ? Spills or ruptured sources? - Emergency procedures?

**Item 11: Waste Management** If other radioactive waste generated, you will have to ship for burial or propose alternate disposal method.

Need Specifics:

Because of the nature of the licensed material contained in GC/XRF devices, the usual disposal option is to transfer the licensed material to an authorized recipient. State in the application that disposal will be by transfer of the radioactive material to a licensee specifically authorized to possess it, or provide information for an alternate method of disposal for NRC review.

Authorized recipients are the original supplier of the device, a commercial firm licensed by NRC or an Agreement State to accept radioactive waste from other persons, or another specific licensee authorized to possess the licensed material. No one else is authorized to receive licensed material.

## D.1 ITEM 1: ACTION TYPE

| ACTION TYPE: | **ADMINISTRATIVE REVIEW:** |
|---|---|
| [ ] New | [ ] Current Guidance Used |
| [ ] Amendment | [ ] References in Application Based On Current Regulations |
| [ ] Renewal | [ ] All Attachments Referenced Included |
| | [ ] Signature on Application |

ON-SITE
INSTRUMENTS
404 Enterprise Drive
Lewis Center, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

Colleen Casey
United States Nuclear Regulatory Commission
Region 3
801 Warrensville Road
Lisle, IL 60532-4351

January 30, 1999

Dear Colleen:

As we have discussed in previous conversations, I wish to amend our materials license, 34-24437-01 as follows:

**ITEM 1** **This is an application for:**
Subitem B: Amendment to license number 34-24437-01

**ITEM 2** **Name and mailing address of applicant:**

ON-SITE INSTRUMENTS, INC.
404 Enterprise Drive
Lewis Center, Ohio 43035

**ITEM 3** **Address where licensed materials will be used or possessed:**

404 Enterprise Drive
Lewis Center, Ohio 43035
The gas chromatography devices (E.C.D.'s) will not be used at temporary jobsites.

**ITEM 4** **Name of the person to be contacted about this application:**

Larry R. Cheetham
614-846-3022

**ITEM 5** **Radioactive Material:**

**(a) Elements and Mass Numbers**
Nickel-63 (63Ni)

**(b) Chemical and physical forms:**

Assembled detectors containing a plated source in an enclosed, sealed cell (electron capture detector cells); including Hewlett-Packard Model numbers19233 or G1223A, Varian Model Number 02-0001972-00 and Valco Model 140BN, but, not limited to, any 63Ni electron capture detector with foils or plated sources registered with the NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gas chromatograph, and as further specified in 5 (a) & (c) of this document.

**(c) Maximum amount which will be possessed at any one time:**

No single cell or standard is to exceed 15 millicuries each. The total activity of all cells is to be less than 5 Curie or approximately 330 cells.



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**ITEM 6 Purpose(s) for which licensed material will be used:**

The licensed material shall be used for sample analysis as detector sources (electron capture detectors; ECD) in compatible gas chromatography devices manufactured by Hewlett-Packard, HNU Systems and Varian gas chromatographs (ECD), or any 63Ni electron capture detectors with foils or plated sources registered with the NRC under 10 CFR 32.210 or with an Agreement State and incorporated in compatible gas chromatograph. The ECD detectors will be stored, installed, performance evaluated, calibrated, radioactive leak tested, thermally cleaned, and de-installed from gas chromatographs. No maintenance or repair involving the opening of the ECD cell or removing the source or foil will be performed. The ECD's may be sold, rented or leased to another company or site provided that site has a valid license allowing them to possess those quantities of 63Ni. Customers renting, leasing or purchasing E.C.D. Detectors shall be governed by the transfer restriction described in 10 CFR 30.41. An ON-SITE INSTRUMENTS, INC's " Electron Capture Detector Information Sheet" will be included with all transfers of E.C.D.'s. **See Attachment 1**. This information sheet will specify the manufacturer of the device and the manufacturer's publication related to information for General Licensees. In addition, a copy of the original manufacturer's information to general licensees will be included. **See attachments 2, 3, 4.** The licensee shall furnish to each general licensee to whom he transfers a device pursuant to this license, a copy of Section 31.5, 10 CFR 31; Sections 30.34 and 30.51 through 30.63, 10 CFR 30; Section 20.402 and 20.403, 10 CFR 20, and Appendix D, 10CFR 20. **Contained in Attachments 2,3,4.**

**ITEM 7 Individual(s) responsible for radiation safety program and their training and experience – Radiation Safety Officer**

**Radiation Safety Officer**

Larry R. Cheetham
ON-SITE INSTRUMENTS, INC.
404 Enterprise Drive
Lewis Center, Ohio 43035

**Professional Experience**

*Supervised Mobile Laboratory at DOE Portsmouth Uranium Enrichment Plant (RCRA facility investigation 1991-1994)
*Supervised Mobile Laboratory at Wright Patterson AFB (1/93 to 6/93)
*Extensive experience with laboratory and direct reading instruments

**Training**

- DOE Radiation Protection Training at DOE Portsmouth Uranium Enrichment Plant (January 1991-1994)
- 40 Hour OSHA Emergency Response Training (29 CFR 1910.120) August 1987
- 8 Hour OSHA Supervisor Training
- 40 Hour OSHA Training Instructor
- 40 Hour Radiation Safety Officer Training (CSI Radiation Training, August 1998)

L-SITE
ENTS
...ive
...enter, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

**Education:**

Capital University, Bexley, Ohio
B.Sc., Biology 1979

No repair or maintenance will be performed on the E.C.D.'s. No specific training and experience in the use and handling of radioactive materials is necessary for individuals who will use the device(s) or supervise its use. No special experience is needed to perform leak test using a leak test kit or to clean detector cells used in GC devices provided that the source or foil is not removed from the detector cell.

**ITEM 8 Training provided to other users:**

Persons will only operate the Gas Chromatography Device (ECD) under the supervision of the R.S.O, Larry R. Cheetham, and will not perform any maintenance or repair operation. These supervised individuals need no special training.

**ITEM 9 Facilities and equipment:**

All use and storage of radioactive materials shall remain in restricted areas of 404 Enterprise Drive, Lewis Center, Ohio, 43035. All E.C.D.'s in use shall be vented to the exterior of the building to minimize exposures to radiation and radioactive materials as low as reasonably achievable (ALARA) and to minimize danger to life and property from the uses of the radioactive materials.

The room, laboratory or storage area in which the device(s) is located will remain accessible only to persons authorized to use the device and locked when an authorized person is not physically present. The restricted areas will not be accessible to unauthorized persons.

**ITEM 10 Radiation Safety Program:**

**ITEM 10.1 Audit Program:**

A yearly audit shall be conducted to fulfill the requirements of 10 CFR 20.1101 for the annual review of the content and implementation of the radiation protection program and to ensure compliance with the terms and conditions of the license. The program shall identify program weaknesses and allow for early corrective actions by the company.
The annual internal audit will follow Sections 1-21 of the sample audit program and checklist found in Appendix L of Draft NUREG-1556, Vol. 7. **See Attachment 5.**

**ITEM 10.2 Radiation Detection Instruments:**

A survey meter is not required for routine uses of gas chromatographs with E.C.D. detectors.
No repair or maintenance will be performed on the E.C.D.'s.

**ITEM 10.3 Material Receipt and Accountability:**

Licensee will maintain records of receipt. transfer and disposal of licensed material. Licensee shall perform inventories of all sealed sources every six months.



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1-800-766-7483
FAX (614) 844-3994

**ITEM 10.4 Personnel Monitoring Equipment:**

Personal monitoring equipment is not required for ECD detectors with 63Ni sources.

**ITEM 10.5 Leak-Testing:**

A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
B. In the absence of a certificate of transfer indicating that a leak test has been performed within 6 months prior to the transfer, a sealed source detector cell received from another person shall not be put into use until tested.
C. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination. a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(b)(2), and the source shall be removed immediately from service and decontaminated, repaired or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date of the leak test result is known with the U.S. Nuclear Regulatory Commission, Attn: Director, Division of Nuclear Safety. The report shall specify the source involved, the test results. and corrective action taken.
D. Leak test will be performed using a leak test kit supplied by an organization authorized by NRC to provide leak test kits to other licensees.

**ITEM 10.6 Maintenance and Repair:**

No repair or maintenance will be performed on the E.C.D.'s.

**ITEM 10.7 Transportation:**

The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 21, "Packaging and Transportation of Radioactive Material".

ON-SITE INSTRUMENTS, INC will not use E.C.D.'s at temporary jobsites.

**ITEM 10.8 Minimization of Contamination:**

Refer to Item 9 Facilities and Equipment
Refer to Item 10.5 Leak-Testing

**ITEM 11 Waste Management:**

Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services. Leaking and/or contaminated E.C.D. detectors shall be transferred to the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to maintain, repair, clean, replace or dispose of the foils.



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**ITEM 12** **Changes in Current Materials License**

1. **Item 2 Address of licensee should read:**

   404 Enterprise Drive
   Lewis Center, Ohio 43035

2. **Section 9-A Authorized Use:**

   For possession incident to redistribution of detector cells to individuals specifically licensed and to individuals generally licensed pursuant to 10 CFR 31.5, in accordance with 10 CFR 32.51.

3. **Section 10 Conditions:**

   Licensed Material shall be used only at the licensee's facilities located at 404 Enterprise Drive, Lewis Center, Ohio 43035.

4. **Section 11 Conditions:**

   Licensed material shall be used by or under the supervision of Larry R. Cheetham.

5. **Section 12 B Conditions:**

   Each sealed source possessed by the licensee shall be inspected for construction defects, leakage, and contamination prior to use or transfers as a sealed source. If the inspection or test reveals any construction defects or 0.005 microcurie or greater of contamination, the source shall not be used or transferred as a sealed source until it has been decontaminated, repaired and retested by the device manufacturer or other persons specifically authorized by the commission or an Agreement State to perform such services.

6. **Section 18 Conditions:**

   The licensee shall maintain records of information important to safe and effective decommissioning at 404 Enterprise Drive, Lewis Center, Ohio, 43035.

Respectfully Submitted,

On-Site Instruments, Inc.

Larry R. Cheetham
President



Nationwide Service

ON-SITE
INSTRUMENTS
[illegible] Drive
[illegible]ster, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

# EXHIBITS & ATTACHMENTS

| | |
|---|---|
| **Exhibit 1** | 40 Hour Training Certificate; Larry R. Cheetham |
| **Exhibit 2** | Application for Material License; Amendment |
| **Attachment 1** | On-Site Instruments, Inc., Electron Capture Detector Information Sheet |
| **Attachment 2** | "Information For General Licensees"; Hewlett- Packard |
| **Attachment 3** | "General License Letter", "Radiation Safety Manual": Varian Chromatography Systems |
| **Attachment 4** | "Conditions For Acceptance Of A Generally Licensed Device"; Valco Instrument Co. Inc. |
| **Attachment 5** | Audit Checklist from Appendix L, NUREG – 1556, Vol. 7 |



Nationwide Service

# Certificate of Training

This Certifies That

## *Larry R. Cheetham*

has successfully completed the 40-hour course of instruction for

# Radiation Safety Officer

**August 10-14, 1998**

Presented By

***CSI-Radiation Safety Training***
3827 Farragut Avenue
Kensington, Maryland 20895

in association with

Radiation Service Organization, Inc.
Post Office Box 1526
Laurel, Maryland 20725

Ray Johnson

Raymond Johnson, C.H.P., P.E.
Training Director

Exhibit 1

U. S. NUCLE[illegible]GULATORY COMMISSION

S6

# APPLICATION FOR MATERIAL LICENSE

APPR[illegible]Y OMB NO. [illegible]
EXPIRES [illegible]

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 8 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

**[illegible]STRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. [illegible]END TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.**

[illegible]PPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

A

[illegible]LL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

[illegible] YOU ARE LOCATED IN:

[illegible]ONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, [illegible]ASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, [illegible]HODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

[illegible]LABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO [illegible]ICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, [illegible]END APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

030-28575

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

COPY

[illegible]ERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED [illegible]ATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

[illegible]. THIS IS AN APPLICATION FOR (Check appropriate item)

- [ ] A. NEW LICENSE
- [x] B. AMENDMENT TO LICENSE NUMBER 34-24437-01
- [ ] C. RENEWAL OF LICENSE NUMBER

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code)

On-Site Instruments, Inc.
404 Enterprise Drive
Lewis Center, Ohio 43035

[illegible]. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

404 Enterprise Drive
Lewis Center, Ohio 43035

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS

Larry R. Cheetham

TELEPHONE NUMBER
614.846.3022

[illegible]UBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

[illegible]. RADIOACTIVE MATERIAL
a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

[illegible]. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

[illegible]. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

[illegible]1. WASTE MANAGEMENT.

12. LICENSE FEES (See 10 CFR 170 and Section 170.31)
FEE CATEGORY 3P
AMOUNT ENCLOSED $ 340.00

[illegible]3. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 38 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

[illegible]ERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE
Larry R. Cheetham President

SIGNATURE

DATE 8/26/98

FOR NRC USE ONLY

| [illegible]YPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|---|---|---|---|---|---|
| | | | $ | | pm: 8/31/98 |
| [illegible]PPROVED BY | | | | DATE | |

RECEIVED
SEP 0 1 1998
REGION III

[illegible]RC FORM 313 (10-84)

~~[illegible]~~ 304348

SEP 0 1 1998

Exhibit II

*Attachment 1*

## ON-SITE INSTRUMENTS, INC.

### Electron Capture Detector Information Sheet

**ENCLOSED PUBLICATION:**_____.

**MANUFACURER:**_____.

NOTICE: The information in the publication named above is summarized below. The U.S. Nuclear Regulatory Commission (NRC) requires you to be familiar with the information in it.

Electron Capture Detectors (ECD) we distribute contain a $^{63}Ni$ radioactive source which is electroplated onto the inner surface of the detector cell body. $^{63}Ni$ has a half life of 101.1 years, and a maximum activity of 15 mCi; 65.87 KeV emission of ß radiation.

The NRC license of On-Site Instruments, Inc., provides that you must have a valid license for possessing these quantities of $^{63}Ni$ prior to renting, leasing or purchasing from OSI and must provide proof of such valid license prior to transfer and shipment from OSI. It is your responsibility, if necessary, to register with the regulatory agency of the state where the ECD is used, if that state is not an "Agreement State".

You may not:

1) Open the detector cell.
2) Modify the cell in any manner.
3) Use any solvent, including water, to clean the cell.
4) Interfere with or attempt to defeat the overheat circuitry supplied with the detector.
5) Remove or deface the identification tag attached to the cell.

You are required to:

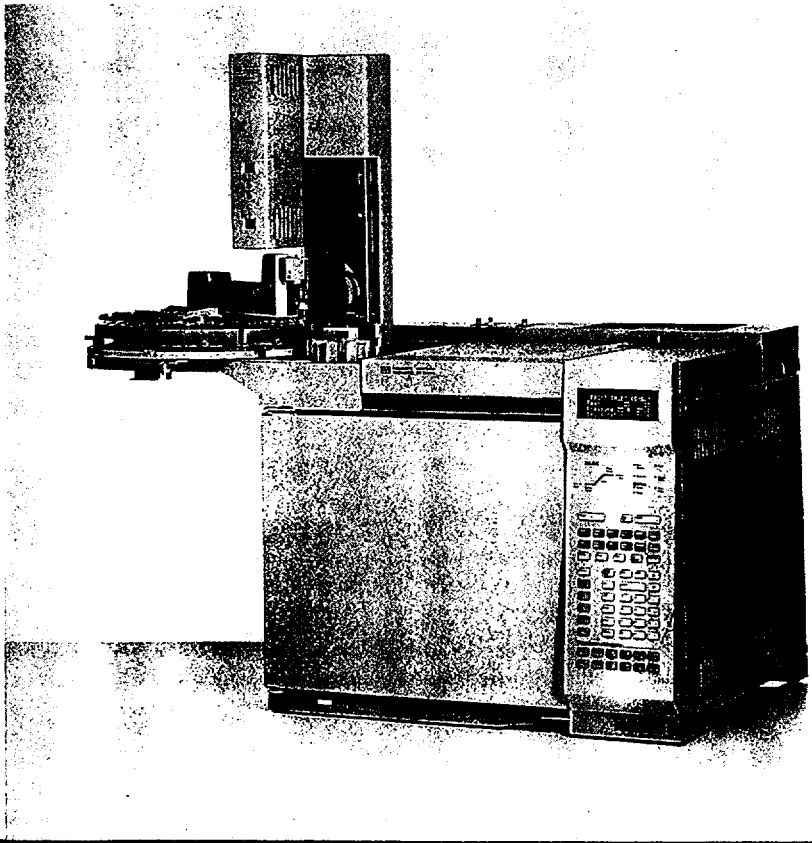
1) Perform a radioactivity leak test every six months. OSI will pay for the analysis of the wipe samples, if you are renting or leasing the cell from OSI, when the wipe test is required.
2) Be able to report to OSI, at any time, the location of each ECD.
3) Maintain records as required by the NRC.
4) Notify the NRC and OSI in case of any incidents or failure which might lead to a hazardous condition. The Radiation Safety Officer of ON-SITE INSTRUMENTS, INC., can be reached at 1-800-766-7483.

Attachment 2

HEWLETT PACKARD

# Information for General Licensees

For Hewlett-Packard
Electron Capture Detectors



Attachment 3

**varian**
*chromatography systems*

**General License Letter**

Dear Customer:

The $^{63}$Ni Electron Capture Detector (ECD) you received for use on Varian VISTA Series or 3000 Series Gas Chromatographs is distributed under license number 3092-07 GL, issued by the California Department of Health. By acquiring this ECD, you take upon yourself certain obligations (explained below) as a "General Licensee". *(Some states require a Specific License.)*

To become a General Licensee, you ***must*** register this radioactive material-containing device within 30 days and commit yourself to following the regulations as indicated in the *Radiation Safety Manual* (03-913999-00), paragraphs 9 and 10. The regulations in the *Radiation Safety Manual*, excerpted from the California Administrative Code, Title 17, are substantially the same as those you are subject to even if you use the ECD outside of California. You should also read the ECD Operator's Manual prior to operating the ECD.

The radiation authorities require that one person be in charge of an organization's ECDs. This individual must be familiar with this *General License Letter*, the *Radiation Safety Manual*, and is responsible for the following records:

- Certificate of Disposition of Materials
- Certificate of Leak Test
- Receipt, transfer, loss, or theft
- Notification of incidents
- Registration of Generally Licensed Devices

The *Registration of Generally Licensed Devices* form must be completed by the user and mailed to the radiation authority having jurisdiction in the actual location of use.

Attached to this letter is the *Registration of Generally Licensed Devices* form. Addresses of the United States NRC and the Agreement States are included. If your state is not separately listed as an Agreement State, you must register with the regional NRC office.

If the name on the purchase order is not the responsible individual, then that individual must be notified so that these notification requirements can be fulfilled. (See the California Code of Regulations, Title 17, Sections 30293, 30294, and 30295.)

Only the State of California Radiologic Health Section requires renewal of this registration every July of even-numbered years. ***All Authorities*** require that you resubmit a completed registration form when the ECD is moved to a different address.

A leak test is required every 36 months to determine if the exterior of the ECD has been contaminated. General Licensees are allowed to take their own wipes when using an approved wipe. A wipe kit testing service is available from Varian; contact Varian Customer Service for details (510-939-2400).

Detectors returned for foil replacement will be leak tested at no additional charge. No return authorization is necessary for billable repair shipments. See the *Radiation Safety Manual*, paragraph 7, for shipping procedures.

Varian has a disposal service for Varian ECDs. A *Certificate of Disposition of Materials* will be issued. Direct all shipments containing ECDs to "Attention: RAD LAB".

In summary:

- A leak test must be performed every 36 months
- Your *Registration of Generally Licensed Devices* (attached) must be sent to your radiation authority within 30 days
- Thoroughly familiarize yourself with the *Radiation Safety Manual*

Sincerely,

Larry E. Steinwandt

*Attachments*

Larry Steinwandt, Radiation Safety Officer

Varian Associates, Inc., 2700 Mitchell Drive, Walnut Creek, California 94598-1675 U.S.A.
Phone 510/939-2400 FAX 510/945-2335 TWX 910-385-6301

# Agreement States

**Alabama** 205-261-5315
Division of Radiological Health
Environmental Health Administration
State Office Building
572 E. Patton Avenue
Montgomery, AL 36130-1701

**Arizona** 602-255-4845
Arizona Radiation Regulatory Agency
4814 S. 40th Street
Pheonix, AZ 85040

**Arkansas** 501-661-2301
Division of Radiation Control
Arkansas Department of Health
4815 West Markham, Slot 30
Little Rock, AR 72201-3876

**California** 916-322-3482
Radiologic Health Section
Department of Health Services
714/744 P Street
Sacramento, CA 95814-7320

**Colorado** 303-692-3030
Radiation Control Division
Colorado Department of Health
4300 Cherry Creek Drive South
Denver, CO 80222-1530

**Florida** 904-487-1004
Office of Radiation Control
Department of Health & Rehabilitative Services
1317 Winewood Boulevard
Tallahassee, FL 32399-0700

**Georgia** 404-362-2675
Radiation Materials Program
4244 International Parkway, Suite 114
Atlanta, GA 30354

**Illinois** 217-785-9868
Illinois Department of Nuclear Safety
Office of Radiation Safety
1035 Outer Park Drive
Springfield, IL 62704

**Iowa** 515-281-3478
Bureau of Environmental Health
Iowa Department of Public Health
Lucas State Office Building
Des Moines, IA 50319

**Kansas** 913-296-1562
Radiation Control Section
Division of Health and Environment
Department of Health and Environment
109 SW. 9th Street
Topeka, KS 66612

**Kentucky** 502-564-3700
Radiation Control Branch
Department of Human Resources
275 East Main Street
Frankfort, KY 40601-1000

**Louisiana** 504-765-0112
Radiation Protection Division
Office of Air Quality and Radiation Protection
P.O. Box 82135
Baton Rouge, LA 70884-2135

**Maine** 207-289-5676
Radiological Health Program
State House, Station 10
Augusta, ME 04333

**Maryland** 410-631-3300
Radiological Health Program
Department of Health and Environment
2500 Broening Highway
Baltimore, MD 21224

**Mississippi** 601-354-6657
Division of Radiological Health
State Board of Health
3150 Lawson Street, P.O. Box 1700
Jackson, MS 39205-1700

**Nebraska** 402-471-2168
Division of Radiological Health
State Department of Health
301 Centennial Mall South
P.O. Box 95007
Lincoln, NE 68509

| Retain blank original for future reporting.* | REGISTRATION OF GENERALLY LICENSED DEVICES | Department of Health Use Only |
|---|---|---|
| Submit two completed copies to authority having jurisdiction in area of use. | | |
| Retain one completed copy. | (No fee required) | |

## User Identification

1) _____
Name of organization owning device

2) _____
Previous registration number (if any)

3) _____
Location of use No. Street City State Zip County

4) _____
Area Code Telephone Number

5) _____
Nature of organization

6) _____
Name of responsible individual

7) _____
Mailing address (if different from above). No Post Office Box

*Resubmit if any change has taken place. In California, resubmit every July of even-numbered years.

## Device Data

| | |
|---|---|
| Manufacturer: | Varian Chromatography Systems<br>2700 Mitchell Drive, Walnut Creek, CA 94598-1675, Contra Costa County |
| Telephone: | 510-939-2400 |
| License: | Manufacturing #0256-07; Distribution #3092-07 GL |
| Isotope: | 63Ni - 15 millicuries, maximum |
| Device: | Type - Electron Capture Detector (indicate which model)<br>❑ Model 02-001972-00<br>❑ Model 03-917440-00 |
| Purpose: | Detector for Gas Chromatographs: 3000 or VISTA Series |

I herewith commit myself and my company to adhere to the regulations supplied in the *Radiation Safety Manual*, P/N 03-913999-00.

I am aware of the following requirements:
(1) Registration within thirty (30) days. Section 30192 (c)(2)(A).
(2) General requirement. Section 30253.
(3) Access to premises and records. Section 30254.
(4) Leak test and record keeping. Section 30293.
(5) Reporting of theft or loss of device. Section 30294.
(6) Notification of incidents. Section 30295.
(7) No unauthorized transfer of ownership. Section 30192 (c)(2)(B).
(8) Shipping specifications. Paragraph 7 and Shipper's Certificate.

Signature: _____

Title: _____ Date: _____

varian®
chromatography systems
2700 mitchell drive/walnut creek, ca 94598-1675/usa

ISO 9001
REGISTERED FIRM

# $Ni^{63}$ ECD

# Radiation Safety Manual

©Varian Associates, Inc. 1998 Printed in the U.S.A. 03-913999-00:3

# 1 General

This manual describes the procedures governing the handling, leak testing, repair, storage, shipping, and maintenance of records for the $Ni^{63}$ Electron Capture Detector (ECD) as a radioactive sealed source. Users of the ECD are required by the Nuclear Regulatory Commission (NRC) to be familiar with the procedures and regulations contained in this manual.

# 2 Use, Handling, and Repair

This detector contains a $Ni^{63}$ beta-emitting radioactive isotope plated onto a 1/2 x3/4-inch metallic foil for ionization of the carrier gas. Some of the characteristics of $Ni^{63}$ are listed below.

## $Ni^{63}$ Source Data

| | | | |
|---|---|---|---|
| **Half Life:** | 92 years | **Amount of Activity:** | 555 MBq maximum (15 mCi) |
| **Type of Decay:** | Beta- | **Physical State:** | Solid |
| **Particle Energy:** | 67 KeV | **Model:** | NBC/NEN 004 |
| **Specific Activity:** | 5 Ci/g | **Manufacturer:** | Amersham or DuPont |
| **Maximum Temperature:** | 400°C | | |
| **ISO Classification:** | C42211 | | |

Repair, decontamination, and foil replacement may be done only by those licensed to do so. Contact the Radiation Safety Officer at Varian Chromatography Systems, Walnut Creek, California for additional information.

The ECD is designed and manufactured to comply with the requirements for a General License Device. In the US to posses this ECD, the owner (in most states) is not required to be a Specific Licensee, but must register as indicated in the General License Letter. This ECD has a cell which is retained in the tower. For Radiation Safety and Warranty purposes, the owner/user must not remove the cell.

Outside the US and in some states, it is required that the owner/user be a Specific Licensee.

**WARNING:**
RADIATION SOURCE

**To prevent spreading radioactivity, wash hands thoroughly after handling the ECD. Although beta particles emitted by $Ni^{63}$ have a relatively low energy level and cannot readily penetrate the skin, even a minute amount of radioactive material ingested into the body can be harmful.**

### 3.1 General Leak Test Procedure

The radioactive source is contained in the detector cell. The carrier gas enters the bottom of the cell, passes by the radioactive foil, and exhausts at the top. Any contamination that may escape would be in solid form.

---

NOTE: The ECD does not emanate radioactive gas even when heated to the maximum limit of its working temperature.

---

#### 3.1.1 Wipe Instructions

Wipes must be taken at room temperature and the ECD may be left in the GC.

Leak-test wipes are to be taken from the areas most likely to be contaminated with $Ni^{63}$. These areas are:

- Top of detector tower cap
- Top of tower (cap removed)
- Upper part of the cell
- Very top of the vent tube.

The direction of the wipe should be FROM the area LEAST likely to be contaminated TOWARD the area MOST likely to be contaminated.

#### 3.1.2 Procedure

1. Turn column oven power off. Turn instrument power off. Allow ECD to cool to room temperature.
2. Remove swab from red-marked vial.
3. Wipe by rotating and removing swab while forcefully holding it in contact with the surfaces described above.
4. Replace swab in its vial.
5. Repeat steps 2, 3, and 4 with other swab. The second wipe should be taken the same way as the first.
6. To return ECD to operation, replace tower cap and turn instrument on. Allow detector to heat up to set temperature and allow an additional 20 to 30 minutes for the detector cell to come to temperature. Turn column oven temperature to desired setting and turn column oven switch to heater and fan.

**WARNING:**
**RADIATION SOURCE**

**To prevent spreading radioactivity, wash hands thoroughly after handling the ECD.**

7. Fill out (sign and date on the appropriate line) the leak test record sheet on the backside of the instructions accompanying the leak test kit. Package swab vials in their original or similar container and return to Varian for measurement of the amount of $Ni^{63}$ removed.

1. The material must be packaged in a strong, tight package such that there will be no leakage of radioactive material under conditions normally incident to transportation.
2. The outside of the inner container must be labeled RADIOACTIVE MATERIAL.
3. The radiation level of 4 inches from any point on the external surface of any unpacked instrument or article does not exceed 10 millirem per hour.
4. The radiation level at any point on the external surface of the shipping package does not exceed 0.5 millirem per hour.
5. There must be no significant removable radioactive contamination on the exterior surface of the package.

No measurements need to be made to comply with steps 3, 4, and 5 above. To comply with all of the above conditions, it is recommended that the ECD and installation tool be returned in the same inner container (ECD case) in which they were received, with an outer container made of rigid packaging material (e.g., corrugated cardboard).

The dimensions of the outer container must not be less than 4 x 4 inches. The ECD case, which is labeled as specified in condition 3 above, should be securely and tightly packaged in the outer container. Shock absorbing material should be used between the ECD case and the outer container. If the original ECD case is not available, be sure to label the new inner container according to condition 3 above.

# 8 Waste Disposal

Disposal of radioactive waste generated by Varian in the manufacture, repair, and leak testing of ECDs is through a licensed disposal service.

Varian supplies its customers with an NRC Certificate of Disposition of Materials, which is used as evidence of proper disposal.

# 9 Responsibilities of the User of Sealed Sources

The radiation authorities require that one person be in charge of an organization's ECDs. This individual must be familiar with the General License Letter, this Radiation Safety Manual, and is responsible for the following records:

- Certificate of Disposition of Materials
- Certificate of Leak Test
- Receipt, transfer, loss, or theft
- Notification of incidents
- Registration of Generally Licensed Devices

The "Registration of Generally Licensed Devices" form (attached to the General License Letter) must be completed by the user and mailed to the radiation authority having jurisdiction in the actual location of use.

If the name on the purchase order is not the responsible individual, then that individual must be notified so that these notification requirements can be fulfilled.

(2) Not transfer, abandon or dispose of the device, except by transfer to a person holding a specific license to receive such device.

(3) Transfer the device to another general licensee only;

(A) Where the device remains in use at a particular location. In such case the transferer shall give the transferee a copy of this section and any safety documents identified in the label of the device, or;

(B) Where the device is held in storage in the original shipping container at its intended location of use prior to initial use by the general licensee.

(4) Assure that all labels affixed to the devices at the time of receipt and bearing the statement, Removal of this label is prohibited, are maintained thereon, and comply with all instructions contained in such labels.

(5) Have the device tested for leakage of radioactive material and proper operation of the on-off mechanism and indicator, if any, at the time of installation of the device or of replacement of the radioactive material on the premises of the general licensee and thereafter at no longer than six-month intervals or at such longer intervals as may be specified in the specific license which authorized distribution of the device to general licensees. Devices containing only krypton need not be tested for leakage. Devices containing only tritium or not more then 100 mCi of other beta and/or gamma emitting material or 10 mCi of alpha emitting material and devices held in storage in the original shipping container prior to initial installation need not be tested for any reason.

(6) Have the test required by Section 30192.1 (b)(5) and all other services involving the radioactive material, its shielding and containment performed:

(A) In accordance with the instructions provided by the label; or

(B) By a person holding an appropriate specific license therefor.

(7) Maintain records of all tests performed on the devices as required under this section, including the dates and results of the tests and the names and addresses of the persons conducting the tests.

(8) Upon the occurrence of a failure of or damage to, or any indication of a possible failure of or damage to, the shielding or containment of the radioactive material, or the on-off mechanism or indicator, immediately suspend operation of the device until it has been repaired by or disposed of to a person holding an appropriate specific license therefor.

(9) Within 30 days after the occurrence of a failure of or damage to the shielding or containment of the radioactive material or the on-off mechanism or indicator or upon the detection of 0.005 microcuries or more of removable radioactive material, furnish to the Department a complete description of the device (manufacturer, type, serial number) and a brief description of the event and the remedial action taken.

(c) Persons who possess a device pursuant to the general license contained in Section 30192.1(a) shall with respect thereto be exempt from the requirements of Group 3 of this subchapter except for Sections 30253, 30254, 30293(a)(2), 30294, 30295 and 30297.

(2) The term "Department" as defined in Title 10, Code of Federal Regulations, section 20.1003 is limited to the provisions incorporated by reference in paragraph (a) of this section. The meaning of the term "Department" elsewhere in title 17, California Code of Regulations, Division 1, Chapter 5, Subchapter 4 is as defined in title 17 California Code of Regulations, section 30100.

(c) Users possessing sources of radiation registered or licensed on or before January 1, 1994 may continue to utilize such sources subject to the following conditions:

(1) The exposure to any member o the public shall not exceed .5 Rem in a year.

(2) The user shall file with the Department Form RH 500 (1/94) entitled "Certification – Dose to Members of Public", incorporated herein by reference making the showings required therein no later than January 1, 1995.

**30254. Inspection.**

(a) Each user shall afford to the Department or other official agency specifically designated by the Department, at all reasonable times, opportunity to inspect materials, machines, activities. facilities, premises, and records pursuant to these regulations.

(b) During an inspection, inspectors may consult privately with workers as specified below. The user may accompany inspector during other phases of an inspection.

(1) Inspectors may consult privately with workers concerning matters of occupational radiation protection and other matters related to applicable provisions of Department regulations and licenses to the extent the inspectors deem necessary for the conduct of an effective and thorough inspection.

(2) During the course of an inspection any worker may bring privately to the attention of the inspectors, either orally or in writing, any past or present condition which he has reason to believe may have contributed to or caused any violations of the Radiation Control Law, these regulations, or license condition, or any unnecessary exposure of an individual to the radiation from licensed radioactive material or a registered radiation machine under the user's control. Any such notice in writing shall comply with the requirements of subsection (h) hereof.

(3) The provision of paragraph (b)(2) of this section shall not be interpreted as authorization to disregard instructions pursuant to Section 30255 (b)(1).

(c) If. at the time of inspection. an individual has been authorized by the workers to represent them during inspections, the user shall notify the inspectors of such authorization and shall give the workers' representative an opportunity to accompany the inspectors during the inspection of physical working conditions.

(d) Each worker's representative shall be routinely engaged in work under control of the user and shall have received instructions as specified in Section 30280 (b)(1).

(e) Different representatives of users and workers may accompany the inspectors during different phases of an inspection if there is no resulting interference with the conduct of the inspection. However. only one workers' representative at a time may accompany the inspectors.

(f) With the approval of the user and the workers' representative. an individual who is not routinely engaged in work under control of the user, for example. a consultant to the user or to the workers' representative, shall be afforded the opportunity to accompany inspectors during the inspection of physical working conditions.

**Article 5. Waste Disposal**

**30285. General Requirement.**

No user shall dispose of any radioactive material as waste except:

(a) by transfer to a person holding a specific license to receive the radioactive waste, or

(b) as authorized pursuant to Sections 30269 or 30287.

**Article 6. Records, Reports, and Notifications**

**30293. Records.**

(a) Each user shall maintain accurate and complete written records, as follows:

(1) The results of each required calibration, survey and test.

(2) Each receipt, transfer, and disposal of a source of radiation.

(3) Radiation exposures of all individuals for whom personnel monitoring is required under Section 30276. Exposure records shall be kept on department Form RH2365 or in a manner which includes all the applicable information required on said form. Each entry shall be for a period of time not exceeding one calendar quarter.

(4) Results of medical examinations and bio-assays pursuant to Section 30277.

(b) Each required record of dose received by individuals and of medical examination and bioassay shall be preserved indefinitely or until the Department authorizes their disposal. Each other required record shall be preserved for a period of three years following the date of the occurrence that is the subject of such record.

(c) The following units, or generally accepted multiples thereof, shall be used as appropriate in all records maintained pursuant to this regulation:

(1) Quantities of source material in pounds, millicuries, or microcuries.

(2) Quantities of special nuclear material in grams.

(3) Quantities of radium in milligrams or millicuries.

(4) Quantities of all other radioactive material in curies, millicuries, or microcuries.

(5) Concentrations of any radioactive material in microcuries per milliliter or per gram.

(6) Doses in rems or millirems; dose rates in rems or millirems per hour.

(d) Copies of required records or any part thereof as specified by the department, shall be transferred to the department in the event of termination of the user's business operation and at such other times as the department may direct.

# Shipper's Certificate

## *This parcel contains an excepted radioactive article.*

**Shipping Name:** Radioactive Material Excepted Package, Instruments or Articles
**Hazard Class:** Radioactive Material **Identification Number:** UN 2910
**Containing:** 555 MBq maximum (15 mCi) - $Ni^{63}$
No D.O.T. label required.

This package conforms to the conditions and limitations specified in 49 CFR173.424 for radioactive material, excepted package – instruments or articles, UN2910.

**D.O.T.:** 49CFR173.424. **ICAO:** 10.5.9.5

*Name and Address of Shipper:*

_____ Shipping Date: _____

_____ By: _____

_____ Title: _____

_____ Phone: _____

Purchase Order No. _____ Varian Customer ID # (if known): _____

Reason for return:

- ☐ Radioactive Decontamination
- ☐ Disposal (Varian Chromatography Systems will send a Certificate of Disposition of Materials o the customer)
- ☐ Correct Defect
- ☐ Transfer of ownership of General License Device
- ☐ Convert Specific License Device to a General License Device

Send to: Varian Chromatography Systems
Attention: ECD Laboratory
2700 Mitchell Drive
Walnut Creek, California 94598-1675

***Notes:***

1. Categorization, labeling and Shipper's Declaration are not required.
2. Each article must be marked "RADIOACTIVE", (do not label the outside box radioactive).
3. Securely package in cardboard container (minimum size 4" x 4").
4. Place a completed copy of this document inside the outer container.

Attachment 4

VICI

Valco Instruments Co. Inc.

analytical devices/systems

**TEXAS DEPARTMENT OF HEALTH**

**BUREAU OF RADIATION CONTROL**

**CONDITIONS FOR ACCEPTANCE OF A GENERALLY LICENSED DEVICE**

A. Persons who receive, use, or transfer this device are subject to a general license agreement or equivalent regulations of the United States Nuclear Regulatory Commission (NRC), or an Agreement State.

B. Abandonment or disposal of the device is prohibited unless it is transferred to a person specifically licensed by the NRC, or an Agreement State.

C. Operation of this device is prohibited if there is a failure of or damage to the shielding, or source containment, or "on-off" mechanism.

D. Dismantling, maintenance, and testing of the radioactive material shielding or containment shall be performed by persons specifically licensed by the NRC or an Agreement State.

E. This device shall be tested for radioactive leakage at intervals not to exceed six months.

F. Loss, theft, or transfer of this device and failure of damage to the shielding, or source containment shall be reported to the NRC, or the appropriate Agreement State Regulatory Agency.

G. Removal of any label from this device is prohibited.

# Proposed Rules

Federal Register
Vol. 63, No. 231
Wednesday, December 2, 1998

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## NUCLEAR REGULATORY COMMISSION

### 10 CFR Part 31

RIN 3150—AG06

### Requirements for Those Who Possess Certain Industrial Devices Containing Byproduct Material To Provide Requested Information

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The Nuclear Regulatory Commission (NRC) proposes amending its regulations to add an explicit requirement that general licensees who possess certain measuring, gauging, or controlling devices that contain byproduct material provide the NRC with information concerning these devices. The NRC intends to use this provision to request information concerning devices that present a comparatively higher risk of exposure to the public or property damage. The proposed rule is intended to help ensure that devices containing byproduct material are maintained and transferred properly and are not inadvertently discarded.

**DATES:** Submit comments by February 16, 1999. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

**ADDRESSES:** Send comments by mail to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001. Attention: Rulemakings and Adjudications Staff.

Hand deliver comments to: 11555 Rockville Pike, Rockville, Maryland, between 7:30 am and 4:15 pm on Federal workdays.

You may also provide comments via the NRC's interactive rulemaking website through the NRC home page (http://www.nrc.gov). This site provides the availability to upload comments as files (any format), if your web browser supports that function. For information about the interactive rulemaking site, contact Ms. Carol Gallagher (301) 415–5905; e-mail CAG@nrc.gov.

Certain documents related to this rulemaking, including comments received and the regulatory analysis, may be examined at the NRC Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC. These same documents also may be viewed and downloaded electronically via the interactive rulemaking website established by NRC for this rulemaking.

**FOR FURTHER INFORMATION CONTACT:** Catherine R. Mattsen, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone (301) 415–6264, or e-mail at CRM@nrc.gov; or Jayne McCausland, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415–6219, or e-mail at JMM2@nrc.gov.

**SUPPLEMENTARY INFORMATION:**

#### Background

On February 12, 1959 (24 FR 1089), the Atomic Energy Commission (AEC) amended its regulations to provide a general license for the use of byproduct material contained in certain measuring, gauging, or controlling devices (10 CFR 30.21(c)). Under current regulations (10 CFR 31.5), certain persons may receive and use a device containing byproduct material under this general license if the device has been manufactured and distributed according to the specifications contained in a specific license issued by the NRC or by an Agreement State. A specific license authorizing distribution of generally licensed devices is issued if a regulatory authority determines that the safety features of the device and the instructions for safe operation of that device are adequate and meet regulatory requirements. The general licensee must comply with requirements for labeling, instructions for use, and proper storage or disposition of the device. For some devices, the general licensee must also comply with leak testing requirements. The general licensee is also subject to the terms and conditions in 10 CFR 31.2 concerning general license requirements, transfer of byproduct material, reporting and recordkeeping, and inspection. The general licensee must comply with the safety instructions contained in or referenced on the label of the device and must have the testing or servicing of the device performed by an individual who is authorized to manufacture, install, or service these devices.

A generally licensed device usually consists of radioactive material, contained in a sealed source, within a shielded device. The device is designed with inherent radiation safety features so that it can be used by persons with no radiation training or experience. Thus, the general license is meant to simplify the licensing process so that a case-by-case determination of the adequacy of the radiation training or experience of each user is not necessary.

There are about 45,000 general licensees under 10 CFR 31.5 who possess about 600,000 devices that contain byproduct material. In the past, the NRC has not contacted general licensees on a regular basis because of the relatively small radiation exposure risk posed by these devices and the very large number of general licensees.

However, there have been a number of occurrences where generally licensed devices containing radioactive material have not been properly handled or properly disposed of. In some cases, this has resulted in radiation exposure to the public and contamination of property. For example, when a source is accidentally melted in a steel mill, considerable contamination of the mill, the steel product, and the wastes from the process, the slag and the baghouse dust, can result.

Because of these incidents, the NRC conducted a 3-year sampling (1984 through 1986) of general licensees to assess the effectiveness of the general license program and to determine whether there was an accounting problem with generally licensed device users and, if so, what action could be taken. The sampling revealed several areas of concern regarding the use of radioactive material under the general license provisions of 10 CFR 31.5. The NRC concluded that—(1) Many general licensees are not aware of the appropriate regulations, and (2) Generally licensed devices are inadequately handled and accounted for.

Approximately 15 percent of all general licensees sampled could not account for all of their generally

40.61 General License Acknowledgements - Radioactive Material Other Than Source Material

(a) Certain Measuring, Gauging, and Controlling Devices

(1) A general license is hereby issued to commercial and industrial firms and to research, educational, and medical institutions, individuals in the conduct of their business, and state or local government agencies to receive, acquire, possess, use, or transfer in accordance with the provisions of 40.61(a) (2), (3), and (4), radioactive material, excluding special nuclear material, contained in devices designed and manufactured for the purpose of detecting, measuring, gauging or controlling thickness, density, level, interface location, radiation, leakage, or qualitative or quantitative chemical composition.

(2) The general license in 40.61(a)(1) applies only to radioactive material contained in devices that have been manufactured and labeled in accordance with the authorizations contained in a specific license issued by the Agency pursuant to 41.28(d) or in accordance with the authorizations contained in a specific license issued by the Commission, an Agreement State, or a Licensing State, which authorizes distribution of devices to persons generally licensed by the Commission, an Agreement State, or a Licensing State.

(3) (i) Within 30 days following the receipt, acquisition, or possession of radioactive material in a device, except for calibration, stabilization, and reference sources, issued pursuant to the general license established by 40.61(a)(1), the general licensee shall file an application for an acknowledgement on a form prescribed by the Agency. The application shall be signed by the individual duly authorized to act for or on behalf of the general licensee.

(ii) Each application shall be accompanied by TRC Form 12-2.

(4) Any person who receives, acquires, possesses, uses, or transfers radioactive material in a device pursuant to the general license in 40.61(a)(1):

(i) shall assure that all labels affixed to the device at the time of receipt, and bearing a statement that removal of the label is prohibited, are maintained thereon, are clearly visible and legible, and shall comply with all instructions and precautions provided by such labels;

(ii) shall assure that the device is tested for leakage of radioactive material and proper operation of the "on-off" mechanism and indicator, if any, at no longer than 6 month intervals or at such other intervals as specified in the label; however,

(a) devices containing only krypton need not be tested for leakage of radioactive material, and

(b) devices containing only tritium or not more than 100 microcuries of other beta and/or gamma emitting material or 10 microcuries of alpha emitting material and devices held in storage in the original shipping container prior to initial installation need not be tested for any purpose, provided that each source is tested for leakage within 6 months prior to being used or transferred;

(iii) shall assure that the tests required by 40.61(a)(4)(ii) and other testing, installation (removal of the manufacturer's lock and initial alignment of the radiation beam), servicing, and removal from location of installation involving the radioactive materials, shielding or containment, are performed in accordance with the instructions provided by the labels, in accordance with written instructions provided by the manufacturer as specified in 41.28(d)(3) or by a person holding a specific license from the Agency, the Commission, an Agreement State, or a Licensing State to perform such activities;

(iv) shall maintain records showing compliance with the requirements of 40.61(a)(4)(ii) and (iii). The records shall show the test results. The records also shall identify the device tested by manufacturer, model number, serial number of the device and serial number of the sealed source, and show the dates of performance of and the names of persons performing testing, installation, servicing, and removal from location of installation, of the radioactive material, its shielding or containment;

(v) shall maintain assignment records for portable or mobile devices for inspection by the Agency at the location listed in the general license acknowledgement. These records shall include:

(a) a unique identification (e.g. serial number) of each portable or mobile device,

(b) the location(s) where each portable or mobile device is assigned, and

(c) the date(s) each portable or mobile device is assigned to the location(s) pursuant to 40.61(a)(4)(v)(b);

(vi) shall maintain utilization records for each portable or mobile device used at the location(s) pursuant to 40.61(a)(4)(v)(b) for inspection by the Agency at that location(s);

(vii) shall have a copy of the appropriate operating and instruction manual at each temporary site for Agency inspection;

(viii) upon the occurrence of failure or damage to, or any indication of a possible failure or damage to, the radioactive material shielding or the "on-off" mechanism, or upon the detection of 0.005 microcurie or more of removable radioactive contamination, shall immediately suspend operation of the device until it has been repaired by the manufacturer or other person holding a specific license from the Agency, the Commission, an Agreement State, or a Licensing State to repair such devices, or disposed of by transfer to a person authorized by a specific license to receive the radioactive material contained in the device and, within 30 days, furnish the Agency with a report containing a brief description of the event and the remedial action taken;

(ix) shall not abandon the device containing radioactive material;

(x) except as provided in 40.61(a)(4)(xi), shall transfer or dispose of the device containing radioactive material only by transfer to a person holding a specific license issued by the Agency in accordance with TRCR 41.28(d), or an equivalent specific license issued by the Commission, an Agreement State, or a Licensing State, whose specific license authorizes the receipt of the device, or as otherwise authorized by the Agency in writing, and within 30 days after transfer of a device to a specific licensee, shall furnish the Agency with a report containing identification of the device by manufacturer's name, model number, serial number of the device and serial number of the sealed source, and address of the person receiving the device (except when the device is temporarily transferred to the specific license for repair of the device); and

(xi) shall transfer the device to another general license(e) only:

(a) where the device remains in use at a particular location. In such case, the transferor shall give the transferee a copy of this rule and any safety documents identified in the label on the device and, within 30 days of the transfer, report to the Agency the manufacturer's name and model number of device transferred, the serial number of the sealed source transferred, the name and address of the transferee, and the name and/or position of an individual who may constitute a point of contact between the Agency and the transferee, or

(b) where the device is stored in the original shipping container at its intended location of use prior to initial use by the holder of a general license acknowledgement.

(5) The general license in 40.61(a)(1) does not authorize the manufacture of devices containing radioactive material.

(6) The written instructions specified in 40.61(a)(4)(iii) shall be followed while performing the testing and shall be maintained for inspection by the Agency.

(b) General License Acknowledgements for Use of Radioactive Material for Certain In Vitro Clinical or Laboratory Testing*

(1) A general license is hereby issued to any physician, veterinarian, clinical laboratory, or hospital to receive, acquire, possess, transfer, or use, for any of the following stated tests, in accordance with the provisions of 40.61(b)(2), (3), and (4), the following radioactive materials in prepackaged units:

(i) iodine-125, in units not exceeding 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to humans or animals;

* The New Drug provisions of the Federal Food, Drug, and Cosmetic Act also govern the availability and use of any specific diagnostic drugs in interstate commerce.

(ii) iodine-131, in units not exceeding 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to humans or animals;

(iii) carbon-14, in units not exceeding 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to humans or animals;

(iv) hydrogen-3 (tritium), in units not exceeding 50 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to humans or animals;

(v) iron-59, in units not exceeding 20 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to humans or animals;

(vi) selenium-75, in units not to exceed 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to humans or animals;

(vii) mock iodine-125 reference or calibration sources, in units not exceeding 0.05 microcurie of iodine-129 and 0.005 microcurie of americium-241 each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to humans or animals; or

(viii) cobalt-57, in units not exceeding 10 microcuries each for use in in vitro clinical or laboratory tests not involving internal or external administration of radioactive material, or the radiation therefrom, to humans or animals.

(2) No person shall receive, acquire, possess, use, or transfer radioactive material pursuant to the general license established by 40.61(b)(1) until that person has filed an application for an acknowledgement on a form prescribed by the Agency and has received from the Agency an acknowledgement with an assigned number. The applicant shall furnish the following information and such other information as may be required by the Agency:

(i) name and address of the physician, veterinarian, clinical laboratory, or hospital;

(ii) the location of use;

(iii) a statement that the physician, veterinarian, clinical laboratory, or hospital has appropriate radiation measuring instruments to carry out in vitro clinical or laboratory tests with radioactive material as authorized under the general license in 40.61(b)(1), and that such tests will be performed only by personnel trained specifically in the use of such instruments and in the handling of the radioactive material;

(iv) name, title, address, and telephone number of the individual duly authorized to act for and on behalf of the general licensee supervising the use of radioactive material authorized by 40.61(b)(1); and

(v) TRC Form 12-2.

(3) A person who receives, acquires, possesses, or uses radioactive material pursuant to the general license established by 40.61(b)(1) shall comply with the following:

(i) The holder of the general license acknowledgement shall not possess at any one time, pursuant to the general license in 40.61(b)(1), at any one location of storage or use, a total amount of iodine-125, iodine-131, selenium-75, iron-59, and/or cobalt- 57 in excess of 200 microcuries.

(ii) The holder of the general license acknowledgement shall store the radioactive material in the original shipping container or in a container providing equivalent radiation protection and meeting the requirements of 21.904 until used.

(iii) The holder of the general license acknowledgement shall use the radioactive material only for the uses authorized by 40.61(b)(1).

(iv) The holder of the general license acknowledgement shall not transfer the radioactive material to a person who is not authorized to receive it pursuant to a specific license issued by the Agency, the Commission, any Agreement State, or any Licensing State, nor transfer the radioactive material in any manner other than in the unopened, labeled shipping container as received from the supplier.

(v) The holder of the general license acknowledgement shall dispose of the mock iodine-125 reference or calibration sources described in 40.61(b)(l)(vii) as required by 21.1001.

(4) The holder of the general license acknowledgement shall not receive, acquire, possess, or use radioactive material pursuant to 40.61(b)(1):

(i) except as prepackaged units that are labeled in accordance with the provisions of an applicable specific license issued pursuant to 41.28(h) or in accordance with the provisions of a specific license issued by the Commission, any Agreement State, or any Licensing State that authorizes the manufacture and distribution of iodine-125, iodine-131, carbon-14, hydrogen-3 (tritium), iron-59, selenium-75, cobalt-57, or mock iodine-125 to persons holding general license acknowledgements under 40.61(b) or its equivalent

Attachment 5

APPENDIX L

## Sample Checklist

Audit Report No. _____ License No._____

Licensee's name and mailing address:

_____

_____

_____

_____

Audit of activities at (Address):

_____

_____

_____

_____

Contact at Audit Location _____ Telephone No. _____

Date of this Audit _____

Summary of Findings and Action:

[ ] No deficiencies
[ ] Deficiencies
[ ] Action on previous deficiencies

Recommendations:

Auditor: _____ Date _____
(Signature)

1. AUDIT HISTORY [ ] N/A (N/A means "Not applicable" - Initial Audit)

   A. Last audit of this location conducted _____
   B. Problems/deficiencies identified during last two audits or two years, whichever is longer [ ] Y [ ] N
   C. Open problems/deficiencies from previous audits:

| Status Requirement | Prob./Def. | Corrective Action Taken (Y/N) | Open/Closed |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

   D. Any previous problem/deficiency not corrected or repeated [ ] Y [ ] N [ ] N/A
      Explain:

2. ORGANIZATION AND SCOPE OF PROGRAM

   A. Briefly describe organizational structure

      1. Structure is as described in license documents [ ] Y [ ] N
      2. Multiple authorized locations of use [ ] Y [ ] N
      3. Briefly describe scope of activities involving byproduct material, frequency of use, staff size, etc. [ ] Y [ ] N

   B. Radiation Safety Officer [ ] Y [ ] N

      1. Authorized on license [ ] Y [ ] N
      2. Fulfills duties as RSO [ ] Y [ ] N

   C. Use only by authorized individuals [ ] Y [ ] N
      Remarks:

## 3. TRAINING, RETRAINING, AND INSTRUCTIONS TO WORKERS

A. Instructions to workers per [10 CFR 19.10] [ ] Y [ ] N
B. Training program required [ ] Y [ ] N
C. Training records maintained [ ] Y [ ] N
D. Evaluation of individuals' understanding of procedures and regulations based on interviews, observation of selected workers [ ] Y [ ] N

1. Each has an up-to-date copy of the licensee's safe use and emergency procedures
2. Adequate understanding of:

Current safe use procedures [ ] Y [ ] N
Emergency procedures [ ] Y [ ] N

E. Revised Part 20

Workers cognizant of requirements for:

1. Radiation Safety Program [20.1101] [ ] Y [ ] N
2. Annual dose limits [20.1301, 1302] [ ] Y [ ] N
3. New forms 4 and 5 [ ] Y [ ] N
4. 10% monitoring threshold [201502] [ ] Y [ ] N
5. Dose limits to embryo/fetus and declared pregnant women [20.1208] [ ] Y [ ] N
6. Procedures for opening packages [20.1906] [ ] Y [ ] N

Remarks:

## 4. INTERNAL AUDITS, REVIEWS OR INSPECTIONS

A. Audits are conducted [ ] Y [ ] N

1. Audits conducted by_____
2. Frequency_____

B. Content and implementation of the radiation protection program reviewed annually [20.1101(c)] [ ] Y [ ] N
C. Records maintained [202102] [ ] Y [ ] N

5. FACILITIES

A. Facilities as described in license application

Remarks:

6. MATERIALS

Isotopes, quantities, and use as authorized on license [ ] Y [ ] N

Remarks

7. LEAK TESTS

A. Leak test performed as described in correspondence with NRC (consultant; leak test kit; licensee performed) [ ] Y [ ] N
B. Frequency: every 6 months or other interval, as approved by NRC or Agreement State [ ] Y [ ] N
C. Records with appropriate information maintained [ ] Y [ ] N

Remarks:

8. INVENTORIES

A. Conducted at 6-month intervals [ ] Y [ ] N
B. Records with appropriate information maintained [ ] Y [ ] N

Remarks:

9. RADIATION SURVEYS

A. Instruments and Equipment: [ ] Y [ ] N

1. Appropriate operable survey instrumentation possessed or readily available [ ] Y [ ] N
2. Calibrated as required [20.1501] [ ] Y [ ] N
3. Calibration records maintained [20.2103(a)] [ ] Y [ ] N

B. Briefly describe survey requirements [201501(a)]:

C. Performed as required [20.1501(a)] [ ] Y [ ] N

1. Radiation levels within regulatory limits [ ] Y [ ] N
2. Corrective action taken and documented [ ] Y [ ] N

D. Records maintained [20.2103] [ ] Y [ ] N

E. Protection of members of the public

1. Adequate surveys made to demonstrate either (a) that the TEDE to the individual likely to receive the highest dose does not exceed 100 mrem in a year, or (b) that if an individual were continuously present in an unrestricted area, the external dose would not exceed 2 mrem in any hour and 50 mrem in a year [20.1301(a)(1), 1302(b)] [ ] Y [ ] N
2. Unrestricted area radiation levels do not exceed 2 mrem in any one hour [20.1301(a)(2)] [ ] Y [ ] N
3. Records maintained [20.2103, 2107] [ ] Y [ ] N

Remarks:

10. RECEIPT AND TRANSFER OF RADIOACTIVE MATERIAL (INCLUDES WASTE DISPOSAL)

A. Describe how packages are received and by whom: [ ] Y [ ] N

B Written package opening procedures established and followed [20.1906(e) [ ] Y [ ] N

C. If package shows evidence of degradation, monitor for contamination and radiation levels [ ] Y [ ] N [ ] N/A

D. Monitoring of degraded packages performed within time specified [20.1906(c)] [ ] Y [ ] N [ ] N/A

E. Transfer(s) between licensees (including "disposal") performed per [30.41] [ ] Y [ ] N [ ] N/A

F. Records of receipt/transfer maintained [20.2103(a), 3051] [ ] Y [ ] N

G. Transfers within licensee's authorized users or locations performed as required [L/C] [ ] Y [ ] N [ ] N/A

H. Package receipt/distribution activities evaluated for compliance with 20.1301 [20.1302] [ ] Y [ ] N [ ] N/A

Remarks:

11. TRANSPORTATION (10 CFR 71.5(A) and 49 CFR 170-189) [ ] N/A

A. Licensee shipments are:

1. delivered to common carriers [ ] Y [ ] N [ ] N/A
2. transported in licensee's own private vehicle [ ] Y [ ] N [ ] N/A
3. no shipments since last audit [ ] Y [ ] N [ ] N/A

B. Packages [ ] N/A

1. Authorized packages used [173.415, 416(b)] [ ] Y [ ] N [ ] N/A
2. Closed and sealed during transport [173.475(f)] [ ] Y [ ] N

C. Shipping Papers [ ] N/A

1. Prepared and used [172.200(a)] [ ] Y [ ] N
2. Proper {Shipping name, Hazard Class, UN Number, Quantity, Package Type, Nuclide, RQ, Radioactive Material, Physical and Chemical Form, Activity, Category of label, T1, Shipper's Name, Certification and Signature, Emergency Response Phone Number, "Cargo Aircraft Only" (if applicable)} [172.200-204] [ ] Y [ ] N
3. Readily accessible during transport [177.718(e)] [ ] Y [ ] N

D. Vehicles [ ] Y [ ] N

1. Cargo blocked and braced [177.842(d)] [ ] Y [ ] N
2. Placarded, if needed [172.504] [ ] Y [ ] N
3. Proper overpacks, if used (shipping name, UN Number, labeled, statement indicating that inner package complies with specification package) [173.25] [ ] Y [ ] N

E. Any incidents reported to DOT [171.15, 16] [ ] Y [ ] N

Remarks:

12. PERSONNEL RADIATION PROTECTION

A. ALARA considerations are incorporated into the Radiation Protection Program [20.1101(b)] [ ] Y [ ] N

B. Adequate documentation of determination that unmonitored

occupationally individuals are not likely to receive >10% of allowable limit [20.1502(a)] [ ] Y [ ] N [ ] N/A

**OR**

C. External dosimetry provided and required [ ] Y [ ] N [ ] N/A

1. Supplier _____ Frequency _____
2. Supplier is NVLAP-approved [20.1501(c)]] [ ] Y [ ] N
3. Dosimeters exchanged at required frequency [L/C]] [ ] Y [ ] N

D. Occupational intake monitored and assessed [20.1502(b) [ ] Y [ ] N [ ] N/A

E. Reports [ ] N/A

1. Reviewed by _____ Frequency _____
2. Auditor reviewed personnel monitoring records for period _____ to _____
3. Prior dose determined for individuals likely to receive doses [20.2104] [ ] Y [ ] N
4. Maximum exposures TEDE _____ Other _____
5. NRC Forms or equivalent [20.2104(d), 2106(c)]

   a. NRC-4 "Cumulative Occupational Exposure History" [ ] Y [ ] N
      Complete: [ ] Y [ ] N
   b. NRC-5 "Occupational Exposure Record for a Monitoring Period" [ ] Y [ ] N
      Complete: [ ] Y [ ] N

6. Worker declared her pregnancy in writing during inspection period (review records) [ ] Y [ ] N [ ] N/A
   If yes, determine compliance with [20.1208] [ ] Y [ ] N
   check for records per [202106(e)] [ ] Y [ ] N

F. Records of exposures, surveys, monitoring, and evaluations maintained [20.2102, 2103, 2106, L/C] [ ] Y [ ] N

Remarks:

13. AUDITOR'S INDEPENDENT MEASUREMENTS (IF MADE)

A. Survey instrument Serial No. Last calibration

B. Auditor's measurements compared to licensee's [ ] Y [ ] N
C. Describe the type, location, and results of measurements:

14. NOTIFICATION AND REPORTS [ ] N/A

A. Licensee in compliance with [19.13, 30.50] (reports to individuals, public and occupational, monitored to show compliance with Part 20) [ ] Y [ ] N [ ] N/A
B. Licensee in compliance with [20.2201, 30.50] (theft or loss) [ ] Y [ ] N [ ] None
C. Licensee in compliance with [20.2202, 30.50] (incidents) [ ] Y [ ] N [ ] None
D. Licensee in compliance with [20.2203, 30.50] (overexposures and high radiation levels) [ ] Y [ ] N [ ] None
E. Licensee aware of telephone number for NRC Emergency Operations Center [(301) 816-5100] [ ] Y [ ] N

15. POSTING AND LABELING

A. NRC-3 "Notice to Workers" is posted [19.11] [ ] Y [ ] N
B. Parts 19, 20, 21, Section 206 of Energy Reorganization Act, procedures adopted pursuant to Part 21, and license documents are posted, or a notice indicating where documents can be examined is posted [19.11, 21.6] [ ] Y [ ] N
C. Other posting and labeling per [201902, 1904] and the license is not exempted by [20.1903, 1905] [ ] Y [ ] N

Remarks:

16. RECORD KEEPING FOR DECOMMISSIONING (if needed) [ ] N/A

A. Records of information important to the safe and effective decommissioning of the facility maintained in an independent and identifiable location until license termination [ ] Y [ ] N
B. Records include all information outlined in [30.35(g) [ ] Y [ ] N

Remarks:

## 17. BULLETINS AND INFORMATION NOTICES

A. Receipt of NRC Bulletins, NRC Information Notices, NMSS Newsletters, etc [ ] Y [ ] N

B. Appropriate action taken in response to Bulletins, Information Notices, etc. [ ] Y [ ] N

Remarks:

## 18. SPECIAL LICENSE CONDITIONS OR ISSUES [ ] N/A

A. Review special issue conditions or other issues, and describe findings:

B. Problems/deficiencies identified at licensee facilities other than at audit location:

C. Evaluation of compliance:

## 19. CONTINUATION OF REPORT ITEMS [ ] N/A

(If more space is needed, use separate sheets and attach to report.)

## 20. PROBLEMS OR DEFICIENCIES NOTED; RECOMMENDATIONS [ ] N/A

***Note:*** Briefly state (1) the requirement and (2) how and when violated. Provide recommendations for improvement.

## 21. EVALUATION OF OTHER FACTORS

A. Senior licensee management is appropriately involved with the radiation safety program and/or Radiation Safety Officer (RSO) oversight [ ] Y [ ] N

B. RSO has sufficient time to perform his/her radiation safety duties

and is not too busy with other assignments [ ] Y [ ] N

C. Licensee has sufficient staff [ ] Y [ ] N

Remarks/recommendations:

ON-SITE
INSTRUMENTS
[illegible] Drive
[illegible]ster, Ohio 43035
(614) 846-3022
1-800-766-7483
FAX (614) 844-3994

Colleen Casey
United States Nuclear Regulatory Commission
Region 3
801 Warrensville Road
Lisle, IL 60532-4351

February 5, 1999

Dear Colleen:

In our previous conversations we have discussed amending our materials license, 34-24437-01, to make it current and appropriate for our current needs. After carefully reviewing the option of servicing detectors in-house, including our costs related to performing such work, I have determined that it is far more economically feasible to return the devices to the manufacturer for this service. As of yet, we have never opened a detector or performed any service to detectors other than thermal cleaning which is permitted for all general licensees. In fact, it has always been our practice to return detectors to the manufacturer for any repairs, maintenance or decommissioning.

Since no maintenance, decontamination, or repairs have ever been performed at this facility or any previous ON-SITE facilities, and because we have no need to perform these activities in the future, I have requested changes to the license which accurately reflect our past, current and future needs. Our past intent to be licensed to perform these maintenance duties was simply to allow On-Site the option of working on these detectors, as necessary. As already stated, that option has never been exercised or become necessary.

In December of 1998, I conducted an extensive wipe test survey of all laboratories and restricted areas. In addition, all ECD detectors were wipe tested. The results, as expected, indicated less than detectable (below 0.001 microcurie) concentrations of removable contamination.

We also discussed licensing SITE MONITORING INC for field G.C. analysis. At the present time, we do not foresee or anticipate any work that might require SMI to utilize a field gas chromatograph with an electron capture detector. Therefore we no longer intend to license Site Monitoring Inc..

Once we finalize the current amendments to our license for ON-SITE INSTRUMENTS, INC, it is our intent to submit a decommissioning plan for our current location at 404 Enterprise. We plan to list our building for sale, and move to another location. We also anticipate requesting for termination of our license after the decommissioning of the 404 Enterprise Drive facility is complete.

If there are any further changes that are needed to finish processing this amendment or you have any further questions, please don't hesitate to call me at 1-800-766-7483.

Larry R. Cheetham

Respectfully Submitted,

On-Site Instruments, Inc.

Larry R. Cheetham
President

A/53

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REGION III

304929

FEB 0 9 1999

Nationwide Service

NRC FORM 577
(5-1998)

U.S. NUCLEAR REGULATORY COMMISSION

# LICENSE FEE REQUIREMENTS

A. SHIRLEY CRUTCHFIELD (301) 415-6097
U.S. Nuclear Regulatory Commission
License Fee and Accounts Receivable Branch
P. O. Box 954514
St. Louis, MO 63195-4514

ON-SITE INSTRUMENTS, INC.
ATTN: LARRY R. CHEETHAM, PRESIDENT
404 ENTERPRISE DRIVE
LEWIS CENTER, OH 43035

TYPE OF ACTION

NEW LICENSE

RENEWAL OF LICENSE

√ AMENDMENT TO LICENSE

REQUESTED DATE
02/05/1999

LICENSE NUMBER
34-24437-01

CONTROL NUMBER
304929

## I. APPLICATION FEE DUE

Your request for a licensing action is subject to the fee(s) in the category(ies) noted below in accordance with Section 170.31 of 10 CFR Part 170. Payment of the fee is required prior to the issuance of the license, renewal, or amendment.

| FEE CATEGORY | APPLICATION | RENEWAL | AMENDMENT |
|---|---|---|---|
| 3P | $ | $ | $ 340.00 |
| | $ | $ | $ |
| | $ | $ | $ |
| | $ | $ | $ |
| | $ | $ | $ |
| | $ | $ | $ |
| | $ | $ | $ |
| | $ | $ | $ |
| | $ | $ | $ |
| | $ | $ | $ |

| | |
|---|---|
| FEE(s) DUE | $ 340.00 |
| PAYMENT RECEIVED | $ 0.00 |
| AMOUNT DUE | $ 340.00 |

√ Your request was received without the prescribed application fee.

We received your check listed below. Payment of the additional fee noted above is required.

Check Number

$ 0.00 Amount

Your request will increase the scope of your license program. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(d)(2).

Your license expired prior to the receipt of your application for renewal. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(a).

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

## II. FEE NOT REQUIRED

Check Number — Enclosed is your check which accompanied your request. The fee is not required because:

Check Number — We received your check listed in payment of the fee.

Date of Request / Control Number — The Licensing staff has informed us that your request is to be considered as a continuation of the request listed.

Date of Request / Control Number — Your request was combined, prior to review, with the request listed.

## III. CHECK RETURNED

Check Number — Enclosed is your check which was returned to us by the bank for:

INSUFFICIENT FUNDS

ACCOUNT CLOSED

OTHER

MAIL THE REPLACEMENT CHECK TO THE ADDRESS LISTED AT THE TOP OF THIS FORM AND REFERENCE THE ABOVE CONTROL NUMBER.

## IV. LICENSE ISSUED WITHOUT THE REQUIRED FEE

License Number / Amendment Number / Date Issued — The listed license was issued without the required fee being collected. The fee required is noted in Section I of this form.

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The scope of your licensed program was increased. Therefore, your request is subject to the application fee(s) noted in Section 1 of this form. Refer to Section 170.31 and Footnote 1(d)(2).

Because of the urgency of your request, the license was issued without remittance of the prescribed fee noted in Section 1 of this form.

| SIGNATURE – LICENSE FEE ANALYST | LFDCB | LFDCB | Distribution: | | DATE |
|---|---|---|---|---|---|
| SHIRLEY CRUTCHFIELD | SC 2/16/99 | | OC/DAF/LFARB S/F (LF-3.2.7) OC/DAF/LFARB RF OC/DAF R/F | Pending Cy REGION 3 | 02/16/1999 |

03947

**ON-SITE INSTRUMENTS**
404 ENTERPRISE DRIVE
LEWIS CENTER, OHIO 43035
614-846-3022

AA805 AMD 3P
Feb 9 III

FIFTH THIRD BANK
LEXINGTON, KENTUCKY
73-119/421

DATE 2/18/99

AMOUNT $340.00

PAY TO THE ORDER OF United States Nuclear Regulatory Commission

Threehundred forty and 00/100

License# 34-24437-01

VOID AFTER 90 DAYS

⑈003947⑈ ⑆042101190⑆ 826⑈10274⑈

304929

SECURITY FEATURES. MICRO PRINT TOP & BOTTOM BORDERS · COLORED PATTERN · ARTIFICIAL WATERMARK ON REVERSE SIDE · MISSING FEATURE INDICATES A COPY

7.6

## Verification for Hewlett-Packard *Specific License* exchange ECDs

15 mCi, $Ni_{63}$ material. *The Nuclear Regulatoty Commission regulations require Hewlett—Packard to have verification of your NRC license on file (or state license if you live in an Agreement" state) before shipping your ECD. See CRE Title 10, NRC form 313, and Regulatoty Guide 10.7 for licensing information. Please indicate the ECD serial number*

| GC Model No. | ECD model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 5890 Series II | HP G1224A | 19233-69536 | K0054 |
| HP 5890 | HP 19235 | 19233-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

## Signature of Authorized Officer or Licensed User

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above:

License No: 34-24437-01 Signature

Issuing Agency NRC Date 2/21/99

Expiration Date July 31, 2000

**Note** A copy of the license is required: the order will be held up without one.

**Note** It is advisable for you to make a copy for your records.

COPY

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Printed in USA 1/97
HP Part No. G1533-90750



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## Verification for Hewlett-Packard *Specific License* exchange ECDs

15 mCi, $Ni_{63}$ material. *The Nuclear Regulatoty Commission regulations require Hewlett—Packard to have verification of your NRC license on file (or state license if you live in an Agreement" state) before shipping your ECD. See CRE Title 10, NRC form 313, and Regulatoty Guide 10.7 for licensing information. Please indicate the ECD serial number*

| GC Model No. | ECD model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 5890 Series II | HP G1224A | 19233-69536 | K4370 |
| HP 5890 | HP 19235 | 19233-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

## Signature of Authorized Officer or Licensed User

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above:

License No: 34 - 24437-01 Signature

Issuing Agency NRC Date 2/21/99

Expiration Date July 31, 2000

**Note** A copy of the license is required: the order will be held up without one.

**Note** It is advisable for you to make a copy for your records.

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BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03240
Status Code: 0
Fee Category: 3P
Exp. Date: 20000731
Fee Comments: _____
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
Applicant/Licensee: ON-SITE INSTRUMENTS INCORPORATED
Received Date: 19990209
Docket No: 3028575
Control No.: 304929
License No.: 34-24437-01
Action Type: Amendment

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2. FEE ATTACHED
Amount: Ø
Check No.: _____

3. COMMENTS

Signed D. Hersey
Date 2-12-99

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /✓/)

1. Fee Category and Amount: 3P $340

2. Correct Fee Paid. Application may be processed for:
Amendment ✓
Renewal _____
License _____

3. OTHER _____

Signed JC
Date 2/22/99

Log Feb 9 11
Remitter 3947
Check No. 4340
Amount 340
Fee Category 3P
Type of Fee ADD
Date Check Rec'd 2/22/99
Date Completed
By: JC

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# Appendix E

HEWLETT PACKARD

## By-Product Materials (Radioactive) License Verification Form

This form is to be used for the exchange of Specific License Electron Capture Detectors, General License Electron Capture Detectors, and Conversion Kits for use within the United States of America only. Read and complete both the front and back sides of this form.

Acct: [illegible]

[illegible] Center [illegible] 43081

Telephone Number 614-544-3994

End User's Name Lacey A. Chathas

Customer Purchase Order Number 17942

Hewlett-Packard Sales Order Number

Tax Status: ☐ Taxable ☒ Exempt

**When returning an ECD for exchange:**

1. Determine the exchange part number.
2. Place a sales order with your local Hewlett-Packard office.
   - Have your own purchase order number available.
   - Obtain and record the sales order number below. or

     If your instrument is under a Hewlett-Packard service contract or warranty, you only need to obtain and record your sales order number below.
3. Consult your Radiation Safety Officer and the Code of Federal Regulations, Titles 10 and 49 (Sections 173.42, 173.421-1, and 173.421) and local and state regulations for packaging.
4. Return this form and ECD to:

   ECD Exchange Program
   Hewlett-Packard Company
   Little Falls Operation
   2850 Centerville Road
   Wilmington, DE
   19808-1610
   Fax number: 302-633-8912

Hewlett-Packard will ship a rebuilt EC detector subject to the following:

- This form must be completed properly and accompanied by a fully assembled ECD.
- Hewlett-Packard must receive the used ECD before a replacement can be shipped.
- One form is filled out per ECD.
- The shipment of a rebuilt ECD will occur within five working days after receipt of the used ECD. All ECDs will be shipped Federal Express Priority 1.
- This program does not include any electronic parts or nonstandard hardware. Any such items will be returned to you.

COPY

Note 1: Obtain prices for the exchanged ECD from your local Hewlett-Packard sales office.

Note 2: Fill out the back side of this form.

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# Appendix E (cont'd)

## License Verification for Hewlett-Packard Exchange of ECDs

Please read and complete the applicable verification certification for General License or Specific License exchange ECDs only, for use on HP GCs. Failure to comply with licensing requirements can cause serious consequences for your company and Hewlett-Packard.

**Verification for Hewlett-Packard *General License* exchange ECDs,** 15 mCi, $Ni_{63}$ material. *Please indicate the ECD serial number.*

| GC Model No. | ECD Model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 6890 Series | HP G1533A | G1533-69576 | |
| HP 5890 Series II | HP G1223A | 19233-69576 | |
| HP 5890 | HP 19233 | 19233-69570 | |
| HP 5880 | HP 19312 | 19312-69550 | |

**Signature of Authorized Officer or Licensed User**

This is to certify that I am in compliance and understand the regulations governing the General License ECD described in "Information for General Licenses" (HP part no. 5961-5664).

Signature: _____

Date: _____

COPY

**Verification for Hewlett-Packard *Specific License* exchange ECDs,** 15 mCi, $Ni_{63}$ material. *The Nuclear Regulatory commission regulations require Hewlett-Packard to have verification of your NRC license on file (or state license if you live in an "Agreement" state) before shipping your ECD. See CRF Title 10, NRC form 313, and Regulatory Guide 10.7 for licensing information. Please indicate the ECD serial number.*

| GC Model No. | ECD Model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 6890 Series | HP G1535A | G1535-69536 | |
| HP 5890 Series II | HP G1224A | 19235-69536 | F7996 |
| HP 5890 | HP 19235 | 19235-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

**Signature of Authorized Officer or Licensed User**

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above.

License No.: 34-24437-01 Signature: _____

Issuing Agency: US Nuclear Regulatory Commission Date: 3/4/99

Expiration Date: July 31, 2000

Note 1: A copy of the license is required; the order will be held up without one

Note 2: It is advisable for you to make a copy for your records

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Part No. G1533-90750

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

MAR 11 1999

Larry R. Cheetham
On-Site Instruments, Inc.
404 Enterprise Drive
Lewis Center, OH 43035

Dear Mr. Cheetham:

Enclosed is Amendment No. 05 to your NRC Material License No. 34-24437-01 in accordance with your request. Please be advised that your license was also updated in accordance with current NRC policy. Specifically: 1) the previous License Condition No. 18 was dropped since it has been superseded by NRC regulations, and 2) the expiration date was extended by five years to July 31, 2000, as we stated in our May 7, 1996 letter. The changes made to your license are printed in **bold** font.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Notify NRC, in writing, within 30 days:

   a. When the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or

   b. When the mailing address listed on the license changes. (No fee is required if the location of byproduct material remains the same.)

3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when a decision is made to terminate all activities involving materials authorized under the license.

4. Request and obtain a license amendment before you:

   a. Change Radiation Safety Officers;

304929 A/58

b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;

c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or

d. Change ownership of your organization.

5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Statement of Policy and Procedure for NRC Enforcement Actions. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Michael F. Weber

Michael F. Weber
Materials Licensing Branch

License No. 34-24437-01
Docket No. 030-28575

Enclosure: Amendment No. 05

NRC FORM 374

U. JCLEAR REGULATORY COMMISSION



Amendment No. 05

# MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 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.

| Licensee | In accordance with letters dated January 30, 1999 and February 5, 1999, |
|---|---|
| 1. On-Site Instruments, Inc. | 3. License number 34-24437-01 is amended in its entirety to read as follows: |
| 2. **404 Enterprise Drive**<br>**Lewis Center, OH 43035** | 4. Expiration date July 31, **2000**<br>5. Docket No. 030-28575<br>Reference No. |

| 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. Nickel-63 | A. Foil sources (Hewlett-Packard Detector Cell Model Nos. 19233 or G1223A, Varian Detector Cell Model No. 02-001972-00, or Valco Detector Cell Model No. 140BN) | A. No single detector cell to exceed 15 millicuries, 5 curies total |

9. Authorized Use:

A. **For possession incident to redistribution of detector cells to individuals specifically licensed and to individuals generally licensed pursuant to 10 CFR 31.5, in accordance with 10 CFR 32.51.**

## CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at **404 Enterprise Drive, Lewis Center, Ohio.**

11. **Licensed material shall be used by, or under the supervision of, Larry R. Cheetham.**

12. **The Radiation Safety Officer for this license is Larry R. Cheetham.**

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**MATERIALS LICENSE**
**SUPPLEMENTARY SHEET**

License Number
34-24437-01

Docket or Reference Number
030-28575

Amendment No. 05

13. A. (1) Each sealed source acquired from another person and 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 contamination and/or leakage before use. In the absence of a certificate from a transfer or indicting that a test has been made within 6 months before the transfer, a sealed source received from another person shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting materials or 10 microcuries or less of alpha emitting material.

B. 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 except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed 3 months.

C. 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 or semi-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. Records may be disposed of following Commission inspection.

D. If the test required by Subsection A. or C. of this condition 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 date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, IL 60532-4351, ATTN: Chief, Nuclear Materials Safety Branch, describing the equipment involved, the test results, and the corrective action taken.

14. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

15. Licensed material shall not be used in or on human beings.

16. The licensee shall conduct a physical inventory every six (6) months to account for all foil sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of foil sources and the date of the inventory.

COPY

**MATERIALS LICENSE**
**SUPPLEMENTARY SHEET**

License Number
34-24437-01

Docket or Reference Number
030-28575

Amendment No. 05

17. The licensee shall furnish to each general licensee to whom it transfers a device pursuant to this license, a copy of Section 31.5, 10 CFR 31; Sections 30.34 and 30.51 through 30.63, 10 CFR 30; Section 20.2201 and 20.2202, 10 CFR 20, and Appendix D, 10 CFR 20.

18. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

    A. Applications dated February 19, 1990 and May 11, 1990; and

    B. Letters dated February 19, 1990, May 19, 1990 (with attachments), March 26, 1992, April 14, 1992, May 1, 1992, May 20, 1992, **January 30, 1999 and February 5, 1999**.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date MAR 11 1999

By Michael F. Weber
Michael F. Weber
Materials Licensing Branch
Region III

COPY

# Appendix E

HEWLETT PACKARD

## By-Product Materials (Radioactive) License Verification Form

This form is to be used for the exchange of Specific License Electron Capture Detectors, General License Electron Capture Detectors, and Conversion Kits for use within the United States of America only. Read and complete both the front and back sides of this form.

Company Name: On-Site Instruments, LLC

Address: 404 Enterprise Dr
Lewis Center, OH 43035

Telephone Number: 614-846-3022

End User's Name: Larry Cheatham

Customer Purchase Order Number: Verbal / Mitch Baker

Hewlett-Packard Sales Order Number:

Tax Status: ☐ Taxable ☒ Exempt

**When returning an ECD for exchange:**

1. Determine the exchange part number.
2. Place a sales order with your local Hewlett-Packard office.
   - Have your own purchase order number available.
   - Obtain and record the sales order number below, or

     If your instrument is under a Hewlett-Packard service contract or warranty, you only need to obtain and record your sales order number below.
3. Consult your Radiation Safety Officer and the Code of Federal Regulations, Titles 10 and 49 (Sections 173.42, 173.421-1, and 173.421) and local and state regulations for packaging.
4. **Return this form and ECD to:**

   **ECD Exchange Program**
   **Hewlett-Packard Company**
   **Little Falls Operation**
   **2850 Centerville Road**
   **Wilmington, DE**
   **19808-1610**
   **Fax number: 302-633-8912**

**Hewlett-Packard will ship a rebuilt EC detector subject to the following:**

- This form must be completed properly and accompanied by a fully assembled ECD.
- Hewlett-Packard must receive the used ECD before a replacement can be shipped.
- One form is filled out per ECD.
- The shipment of a rebuilt ECD will occur within five working days after receipt of the used ECD. All ECDs will be shipped Federal Express Priority 1.
- This program does not include any electronic parts or nonstandard hardware. Any such items will be returned to you

COPY

**Note 1:** Obtain prices for the exchanged ECD from your local Hewlett-Packard sales office.

**Note 2:** Fill out the back side of this form.

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# Appendix E (cont'd)

## License Verification for Hewlett-Packard Exchange of ECDs

Please read and complete the applicable verification/certification for General License or Specific License exchange ECDs only, for use on HP GCs. Failure to comply with licensing requirements can cause serious consequences for your company and Hewlett-Packard.

**Verification for Hewlett-Packard *General License* exchange ECDs,** 15 mCi, $Ni_{63}$ material. *Please indicate the ECD serial number.*

| GC Model No. | ECD Model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 6890 Series | HP G1533A | G1533-69576 | |
| HP 5890 Series II | HP G1223A | 19233-69576 | |
| HP 5890 | HP 19233 | 19233-69570 | |
| HP 5880 | HP 19312 | 19312-69550 | |

**Signature of Authorized Officer or Licensed User**

This is to certify that I am in compliance and understand the regulations governing the General License ECD described in "Information for General Licenses" (HP part no. 5961-5664).

COPY

Signature: _____

Date: _____

**Verification for Hewlett-Packard *Specific License* exchange ECDs,** 15 mCi, $Ni_{63}$ material. *The Nuclear Regulatory commission regulations require Hewlett-Packard to have verification of your NRC license on file (or state license if you live in an "Agreement" state) before shipping your ECD. See CRF Title 10, NRC form 313, and Regulatory Guide 10.7 for licensing information. Please indicate the ECD serial number.*

| GC Model No. | ECD Model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 6890 Series | HP G1535A | G1535-69536 | |
| HP 5890 Series II | HP G1224A | 19235-69536 | E 3448 |
| HP 5890 | HP 19235 | 19235-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

**Signature of Authorized Officer or Licensed User**

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above.

License No.: 34-24437-01

Issuing Agency: NRC

Expiration Date: July 31, 2000

Signature: [signature]

Date: 3/31/99

Note 1: A copy of the license is required, the order will be held up without one

Note 2: It is advisable for you to make a copy for your records.

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Part No. G1533-90750

ON-SITE INSTRUMENTS
404 Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL

SENT VIA FED EX PRIORITY SERVICE

COPY

April 9, 1999

Colleen Casey
United State Nuclear Regulatory Commission
Region 3
801 Warrensville Road
Lisle, IL 60532-4351

Re: Decommissioning of Facility & Termination of License: 34-24437-01

Dear Colleen:

In my letter to you dated February 5, 1999, I stated that it was our intent to decommission our facility and dispose of the sealed sources located at 404 Enterprise Drive. ON-SITE INSTRUMENTS, INC. has ceased principal business activities and is in the process of winding down the operations at 404 Enterprise Drive. We are interested in terminating our license, as quickly as, the NRC can approve the facility for unrestricted use. The real estate at 404 Enterprise will be sold after the property is deemed suitable for unrestricted use.

Since my last letter, I have conducted radiological surveys on all restricted areas of the property. The surveys included the following:

1. All Ni63 detectors were wipe tested, packaged and securely stored awaiting shipment for proper disposal. (SEE ATTACHED WIPE TEST RESULTS) Please note that I anticipate that all sources will be transferred to each respective device manufacture for disposal by April 30, 1999.

2. Following the removal of the ECD detectors, a Victoreen 190 survey meter with a pancake style probe was utilized to screen all surfaces and equipment located in the restricted areas. Each room was divided into a grid layout and each grid was surveyed with the Victoreen 190 pancake probe searching for surface contamination. Although no contamination was discovered with the survey meter, a standard wipe test was also taken from each grid and table surface in search of any removable contamination and for further confirmation of the survey meter results.

The wipe test results indicated no detectable residual beta/gamma contamination of the property or facility. (SEE ATTACHED WIPE TEST RESULTS) Because the wipe test results from the detectors did not indicate any leakage and the surface wipe tests of the areas indicated no residual contamination, the test results indicate to me that the property is currently below the threshold level of contamination that would require the areas to remain restricted from normal use.

It is my understanding that after the sources are disposed, I can submit an amendment for termination of the license.

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ON-SITE INSTRUMENTS
404 Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL

Please be advised that due to the pending sale of the property, time is of the essence in resolving issues related to the decommissioning of the facility and termination of the license. I would appreciate any assistance you can provide to expedite this process.

I will call you next week to discuss the fees, closure survey and logistics of this further. If you have any questions, please do not hesitate to call me at 614-846-3022.

Respectfully Submitted,

On-Site Instruments, Inc.

Larry R. Cheetham
Radiation Safety Officer
President

COPY

# Shipper's Certificate

*This parcel contains an excepted radioactive article.*

**Shipping Name:** Radioactive Material Excepted Package, Instruments or Articles
**Hazard Class:** Radioactive Material **Identification Number:** UN 2910
**Containing:** 555 MBq maximum (15 mCi) - $Ni^{63}$
No D.O.T. label required.

This package conforms to the conditions and limitations specified in 49 CFR173.424 for radioactive material, excepted package – instruments or articles, UN2910.

COPY

D.O.T.: 49CFR173.424. **ICAO:** 10.5.9.5

*Name and Address of Shipper:*

On-Site Instruments
404 Enterprise Dr.
Lewis Center, OH 43035

Shipping Date: 4/20/99
By: Mitch Baker
Title: Analytical Technician
Phone: 614-846-3022

Purchase Order No. 18004

Varian Customer ID # (if known):

Reason for return:

- ☐ Radioactive Decontamination
- ☒ Disposal (Varian Chromatography Systems will send a Certificate of Disposition of Materials o the customer) S/N: A9203
- ☐ Correct Defect
- ☐ Transfer of ownership of General License Device
- ☐ Convert Specific License Device to a General License Device

Send to: Varian Chromatography Systems
Attention: ECD Laboratory
2700 Mitchell Drive
Walnut Creek, California 94598-1675

*Notes:*

1. Categorization, labeling and Shipper's Declaration are not required.
2. Each article must be marked "RADIOACTIVE", (do not label the outside box radioactive).
3. Securely package in cardboard container (minimum size 4" x 4").
4. Place a completed copy of this document inside the outer container.

| | |
|---|---|
| Co./Dept. | |
| Phone # | |
| Fax # 614 846 1991 | |
| Co. Varian | |
| Phone # 925 945 2190 | |
| Fax # | |



A16

# Shipper's Certificate

*This parcel contains an excepted radioactive article.*

**Shipping Name:** Radioactive Material Excepted Package, Instruments or Articles
**Hazard Class:** Radioactive Material **Identification Number:** UN 2910
**Containing:** 555 MBq maximum (15 mCi) - $Ni^{63}$
No D.O.T. label required.

This package conforms to the conditions and limitations specified in 49 CFR173.424 for radioactive material, excepted package – instruments or articles, UN2910.

COPY

D.O.T.: 49CFR173.424. ICAO: 10.5.9.5

*Name and Address of Shipper:*

On-Site Instruments
404 Enterprise Dr.
Lewis Center, OH 43035

Shipping Date: 4/20/99
By: Mitch Baker
Title: Analytical Technician
Phone: 614-946-3022

Purchase Order No. 18004

Varian Customer ID # (if known):

Reason for return:

- ☐ Radioactive Decontamination
- ☒ Disposal (Varian Chromatography Systems will send a Certificate of Disposition of Materials o the customer) S/N A9202
- ☐ Correct Defect
- ☐ Transfer of ownership of General License Device
- ☐ Convert Specific License Device to a General License Device

Send to: Varian Chromatography Systems
Attention: ECD Laboratory
2700 Mitchell Drive
Walnut Creek, California 94598-1675

*Notes:*

1. Categorization, labeling and Shipper's Declaration are not required.
2. Each article must be marked "RADIOACTIVE", (do not label the outside box radioactive).
3. Securely package in cardboard container (minimum size 4" x 4").
4. Place a completed copy of this document inside the outer container.

To: Nelson Dickey
Co./Dept.
Phone #
Fax # 614 846 1991

From: Mitchell Baker
Co. Varian
Phone # 925 945 2190
Fax #

# Shipper's Certificate

## *This parcel contains an excepted radioactive article.*

**Shipping Name:** Radioactive Material Excepted Package, Instruments or Articles
**Hazard Class:** Radioactive Material **Identification Number:** UN 2910
**Containing:** 555 MBq maximum (15 mCi) - $Ni^{63}$
No D.O.T. label required.

This package conforms to the conditions and limitations specified in 49 CFR173.424 for radioactive material, excepted package – instruments or articles, UN2910.

**D.O.T.:** 49CFR173.424. **ICAO:** 10.5.9.5

*Name and Address of Shipper:*

On-Site Instruments
404 Enterprise Dr
Lewis Center, OH 43085

Shipping Date: 4/20/99
By: Mitch Baker
Title: Analytical Technician
Phone: 614-846-3022

Purchase Order No. 18004

Varian Customer ID # (if known):

Reason for return:

- ☐ Radioactive Decontamination
- ☒ Disposal (Varian Chromatography Systems will send a Certificate of Disposition of Materials o the customer) S/N: A7461
- ☐ Correct Defect
- ☐ Transfer of ownership of General License Device
- ☐ Convert Specific License Device to a General License Device

Send to: Varian Chromatography Systems
Attention: ECD Laboratory
2700 Mitchell Drive
Walnut Creek, California 94598-1675

*Notes:*

1. Categorization, labeling and Shipper's Declaration are not required.
2. Each article must be marked "RADIOACTIVE", (do not label the outside box radioactive).
3. Securely package in cardboard container (minimum size 4" x 4").
4. Place a completed copy of this document inside the outer container.

| | |
|---|---|
| Co./Dept. | |
| Phone # | |
| Fax # 614 846 1991 | |
| Co. Varian | |
| Phone # 925 945 2190 | |
| Fax # | |

## Verification for Hewlett-Packard *Specific License* exchange ECDs

15 mCi, $Ni_{63}$ material. *The Nuclear Regulatoty Commission regulations require Hewlett—Packard to have verification of your NRC license on file (or state license if you live in an Agreement" state) before shipping your ECD. See CRE Title 10, NRC form 313, and Regulatoty Guide 10.7 for licensing information. Please indicate the ECD serial number*

| GC Model No. | ECD model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 5890 Series II | HP G1224A | 19233-69536 | L5968 |
| HP 5890 | HP 19235 | 19233-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

## Signature of Authorized Officer or Licensed User

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above:

License No: 34-24937-01 Signature

Issuing Agency NRC Date 4/21/99

Expiration Date July 31, 2000

**Note** A copy of the license is required: the order will be held up without one.

**Note** It is advisable for you to make a copy for your records.

COPY

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Hewlett-Packard Company
Printed in USA 1/97
HP Part No. G1533-90750



A/62

**Verification for Hewlett-Packard *Specific License* exchange ECDs**

15 mCi, $Ni_{63}$ material. *The Nuclear Regulatoty Commission regulations require Hewlett—Packard to have verification of your NRC license on file (or state license if you live in an Agreement" state) before shipping your ECD. See CRE Title 10, NRC form 313, and Regulatoty Guide 10.7 for licensing information. Please indicate the ECD serial number*

| GC Model No. | ECD model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 5890 Series II | HP G1224A | 19233-69536 | L6520 |
| HP 5890 | HP 19235 | 19233-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

## Signature of Authorized Officer or Licensed User

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above:

License No: 34-24437-01 Signature

Issuing Agency NRC Date 4/21/99

Expiration Date July 31 2000

**Note** A copy of the license is required: the order will be held up without one.

**Note** It is advisable for you to make a copy for your records.

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COPY

## Verification for Hewlett-Packard *Specific License* exchange ECDs

15 mCi, $Ni_{63}$ material. *The Nuclear Regulatoty Commission regulations require Hewlett—Packard to have verification of your NRC license on file (or state license if you live in an Agreement" state) before shipping your ECD. See CRE Title 10, NRC form 313, and Regulatoty Guide 10.7 for licensing information. Please indicate the ECD serial number*

| GC Model No. | ECD model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 5890 Series II | HP G1224A | 19233-69536 | F1125 |
| HP 5890 | HP 19235 | 19233-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

## Signature of Authorized Officer or Licensed User

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above:

License No: 34-24437-01 Signature

Issuing Agency NRC Date 4/21/99

Expiration Date July 31, 2000

**Note** A copy of the license is required: the order will be held up without one.

**Note** It is advisable for you to make a copy for your records.

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## Verification for Hewlett-Packard *Specific License* exchange ECDs

15 mCi, $Ni_{63}$ material. *The Nuclear Regulatoty Commission regulations require Hewlett—Packard to have verification of your NRC license on file (or state license if you live in an Agreement" state) before shipping your ECD. See CRE Title 10, NRC form 313, and Regulatoty Guide 10.7 for licensing information. Please indicate the ECD serial number*

| GC Model No. | ECD model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 5890 Series II | HP G1224A | 19233-69536 | F3785 |
| HP 5890 | HP 19235 | 19233-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

## Signature of Authorized Officer or Licensed User

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above:

License No: 34-24437-01 Signature

Issuing Agency NRC Date 4/21/99

Expiration Date July 31, 2000

**Note** A copy of the license is required: the order will be held up without one.

**Note** It is advisable for you to make a copy for your records.

COPY

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HP Part No. G1533-90750

## Verification for Hewlett-Packard *Specific License* exchange ECDs

15 mCi, $Ni_{63}$ material. *The Nuclear Regulatoty Commission regulations require Hewlett—Packard to have verification of your NRC license on file (or state license if you live in an Agreement" state) before shipping your ECD. See CRE Title 10, NRC form 313, and Regulatoty Guide 10.7 for licensing information. Please indicate the ECD serial number*

| GC Model No. | ECD model No. | Exchange Part No. | ECD Serial No. |
|---|---|---|---|
| HP 5890 Series II | HP G1224A | 19233-69536 | F4454 |
| HP 5890 | HP 19235 | 19233-69530 | |
| HP 5880 | HP 19303 | 19303-69550 | |

## Signature of Authorized Officer or Licensed User

This is to certify that my NRC or Agreement State License is current and permits me to receive the type quantity and form of radioactive materials for the use specified as described above:

License No: 34-24437-01 Signature

Issuing Agency NRC Date 4/21/99

Expiration Date July 31, 2000

**Note** A copy of the license is required: the order will be held up without one.

**Note** It is advisable for you to make a copy for your records.

COPY

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Printed in USA 1/97
HP Part No. G1533-90750

# 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 $^{63}$Ni Radiation Safety Manual, Publication 03-913999-00, paragraph 3.

**Isotope:** $^{63}$Ni **Date:** 4/24/99

**Model No.:** 02-001972-00 **Serial No.:** A7461 **Cell No.:** _____

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

.00002 **microcuries**

**NOTE: Varian Chromatography Systems is required by the U.S. NRC and the California Department of Health to inform you that the $^{63}$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.

COPY

Larry Steinwandt

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

A/63

# 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 $^{63}$Ni Radiation Safety Manual, Publication 03-913999-00, paragraph 3.

**Isotope:** $^{63}$Ni **Date:** 4/24/99

**Model No.:** 02-001972-00 **Serial No.:** A 9202 **Cell No.:** _____

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 $^{63}$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.

COPY

Larry Steinwandt

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

NRC FORM 314
(6-89)
10 CFR 30.36(d)(1)(iv)
10 CFR 40.42(d)(1)(iv)
10 CFR 70.38(d)(1)(iv)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: 3150-0028
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 1.5 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0028), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

# CERTIFICATE OF DISPOSITION OF MATERIALS

INSTRUCTIONS: SEND THE COMPLETED CERTIFICATE TO THE NRC OFFICE SPECIFIED ON THE REVERSE. *(All items MUST be completed—print or type)*

LICENSEE NAME AND ADDRESS

ON-SITE INSTRUMENTS
404 ENTERPRISE DRIVE
LEWIS CENTER, OH 43035

LICENSE NUMBER

LICENSE EXPIRATION DATE

THE LICENSEE OR ANY INDIVIDUAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE LICENSEE CERTIFIES THAT:
*(Check and/or complete the appropriate item(s) below.)* LAB MANAGER OR RSO (614) 846-3022

## A. MATERIALS DATA *(Check one and complete as necessary)*

[ ] 1. NO MATERIALS HAVE EVER BEEN PROCURED OR POSSESSED BY THE LICENSEE UNDER THIS LICENSE.

OR

[XX] 2. ALL MATERIALS PROCURED AND/OR POSSESSED BY THE LICENSEE UNDER THE LICENSE NUMBER CITED ABOVE HAVE BEEN DISPOSED OF IN THE FOLLOWING MANNER. *(If additional space is needed, use the reverse side or provide attachments.)*

The described [XX] GENERAL LICENSEE
Shipped to: VARIAN CHROMATOGRAPHY SYSTEMS

Describe specific material transfer actions and, if there were radioactive wastes generated in terminating this license, the disposal actions, including the disposition of low-level radioactive waste, mixed waste, Greater-than-Class-C waste, and sealed sources, if applicable.

GAS CHROMATOGRAPH, ELECTRON CAPTURE DETECTOR P/N 02-001972-00. S/N A9202, A9203 & A7461

RADIOISOTOPE: NICKEL 63 AMOUNT: 15mCi max.

For transfers, specify the date of the transfer, the name of the licensed recipient, and the recipient's NRC license number or Agreement State name and license number.

DATE: 4/24/99 VARIAN LICENSE # 0256-07 (CALIFORNIA)

If materials were disposed of directly by the licensee rather than transferred to another licensee, licensed disposal site or waste contractor, describe the specific disposal procedures *(e.g., decay in storage)*.

STORED AT: VARIAN CHROMATOGRAPHY SYSTEMS, 2700 MITCHELL DR., WALNUT CREEK, CA 94598
PHONE: (510) 9392400

## B. OTHER DATA

[ ] 1. OUR LICENSE HAS NOT YET EXPIRED; PLEASE TERMINATE IT.

2. WAS A RADIATION SURVEY CONDUCTED TO CONFIRM THE ABSENCE OF LICENSED RADIOACTIVE MATERIALS AND TO DETERMINE WHETHER ANY CONTAMINATION REMAINS ON THE PREMISES COVERED BY THE LICENSE? *(Check one)*

[ ] NO *(Attach explanation)*
[XX] YES. THE RESULTS *(Check one)*
[XX] ARE ATTACHED, or
[ ] WERE FORWARDED TO NRC ON *(Date)*

COPY

3. THE PERSON TO BE CONTACTED REGARDING THE INFORMATION PROVIDED ON THIS FORM

NAME: Larry Steinwandt, Radiation Safety Officer
TELEPHONE NUMBER: (510) 9392400

4. MAIL ALL FUTURE CORRESPONDENCE REGARDING THIS LICENSE TO

## CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

SIGNATURE

DATE: 4/6/99

PRINTED NAME AND TITLE: Larry Steinwandt, Radiation Safety Officer for VARIAN

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECTS. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

Hewlett-Packard Company
Little Falls Site
2850 Centerville Rd
Wilmington, De. 19808

302-633-8000

HEWLETT PACKARD

COPY

April 26, 1999

On-Site Instruments

404 Enterprise Drive

Lewis Center, OH 43035

Attn: Mitch Baker

Re: Acknowledgment of Receipt of Electron Capture Detector

Dear Customer,

This is to acknowledge that Electron Capture Detector(s), Serial Number(s),

K0054, L5968, F4454, F3785, F1125, K4370, L6520

were received on 04/23/99 and are in possession of the Hewlett-Packard Company,

Wilmington, De. U.S.A.

Sincerely yours,

Rhonda S. Payne
Hewlett Packard Company
NRC License No. 07-28762-01

**" CUSTOMERS MUST NOTIFY THEIR INDIVIDUAL STATE REGULARTORY AGENCY AND REGULARTORY OFFICE OF THIS TRANSACTION"**

A/65

COPY

VICI

Valco Instruments Co. Inc.

# RECORD OF RADIOACTIVE SOURCE TRANSFER

*Date:* 23 April 1999

*As required by our Radioactive Materials License # LO-1572 issued by the Texas Department of Health, the following generally licensed, sealed radioactive source:*

| Foil No. | Model | Source Material |
|---|---|---|
| 5164.1 | Model 140BN Electron Capture Detector (Serial Number N189) | 5 mC $^{63}$Ni |

*has been disposed of in accordance with regulations set forth by the Texas Department of Health. This source was received from:*

Mitch Baker
Onsite Instruments
404 Enterprise Dr
Lewis Center, OH 43035

*Acknowledged by:* RSO.
Name

Radiation Safety Officer
Title

4/23/99
Date

*Please sign and send one copy to:*

U S Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, IL 60532-4351

*Please sign and send one copy to:*

Valco Instruments Co., Inc.
Attn: Radiation Safety Officer
P O Box 55603
Houston, TX 77255-5603

*Please keep one copy for your information.*

A/66

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03240
Status Code: 0
Fee Category: 3P
Exp. Date: 20000731
Fee Comments: _____
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
   Applicant/Licensee: ON-SITE INSTRUMENTS INCORPORATED
   Received Date: 19990412
   Docket No: 3028575
   Control No.: 305185
   License No.: 34-24437-01
   Action Type: Termination

R4

2. FEE ATTACHED
   Amount: Ø
   Check No.: _____

3. COMMENTS

Signed D. Hersey
Date 4-26-99

B. LICENSE FEE MANAGEMENT BRANCH (Check when Fee Amount is entered /✓/)

FEE EXEMPT

1. Fee Category and Amount: 3P _____

2. Correct Fee Paid. Application may be processed for:
   Amendment ✓
   Renewal _____
   License _____

3. OTHER _____

Signed SC
Date 4/28/99

Log APR 11 '99
Remitter
Check No.
Amount
Fee Category 3P
Type of Fee AMD
Date Check Rec'd
Date Completed 4/28/99
By: SC

A/67

## Source Inventory April 30, 1999

Source Serial Number Location

Hewlett-Packard Model G1224A

L5968 OSI to Hewlett-Packard 4/21/99 to be disposed.
L6520 OSI to Hewlett-Packard 4/21/99 to be disposed.

Hewlett-Packard Model G1224A

F1125 OSI to Hewlett-Packard 4/21/99 to be disposed.
F3448 Hewlett-Packard Wilmington, DE 3/31/99
F3785 OSI to Hewlett-Packard 4/21/99 to be disposed.
F4454 OSI to Hewlett-Packard 4/21/99 to be disposed.
K0054 OSI to Battelle Columbus, OH 1/6/99 to OSI 4/12/99 to Hewlett-Packard 4/21/99 to be disposed.
K4367 OSI to Roy F. Weston Burlington, MA 7/30/98 transfer to Roy F. Weston position 4/31/99
K4370 OSI to Hewlett-Packard 4/21/99 to be disposed.

Valco 140 BN

N189 OSI to VICI(Valco) Houston, TX 4/20/99 to be decommissioned.

Varian Model 02-1972-00

A7461 OSI to Varian Walnut Creek, CA 4/20/99 to be decommissioned
A9202 OSI to Varian Walnut Creek, CA 4/20/99 to be decommissioned
A9203 OSI to Varian Walnut Creek, CA 4/20/99 to be decommissioned

COPY

ON-SITE®
INSTRUMENTS
[illegible] Drive
Lewis Center, Ohio 43035
1-800-766-[illegible]83
(614)-846-3022
Fax (614)-84[illegible]-3994
EnviroRENTAL

COPY

May 3, 1999

Hewlett-Packard Company
2850 Centerville Road
Wilmington, DE 19808-1610

Dear Ronda,

This letter is to inform you ECD cell model# G1223A with serial number K4367 shipped from Roy F. Weston in Burlington, Massachusetts. The ECD is currently covered under On-Site Instruments specific license agreement, license number 34-24437-01. On-Site Instruments would like to return the cell to be disposed. If you need any additional information, please give me a call.

Sincerely,

Mitch Baker
Laboratory Technician

A/69

Hewlett-Packard Company
Little Falls Site
2850 Centerville Rd
Wilmington, De. 19808

302-633-8000

HEWLETT PACKARD

May 7, 1999

On-Site Instruments

397 Venture Dr.

Suite A

Lewis Center, OH 43035

Attn: Mitch Baker

COPY

Re: Acknowledgment of Receipt of Electron Capture Detector

Dear Customer,

This is to acknowledge that Electron Capture Detector(s), Serial Number(s),

K4367

were received on 05/06/99 and are in possession of the Hewlett-Packard Company,

Wilmington, De. U.S.A.

Sincerely yours,

Rhonda S. Payne

Hewlett Packard Company
NRC License No. 07-28762-01

**" CUSTOMERS MUST NOTIFY THEIR INDIVIDUAL STATE REGULARTORY AGENCY AND REGULARTORY OFFICE OF THIS TRANSACTION"**

A/70

VOID SHEET

TO: License Fee Management Branch

FROM: RIII - James R. Mullauer

SUBJECT: VOIDED APPLICATION

Control Number: 305185

Applicant: On-Site Instruments Inc.

License Number: 34-24437-01

Docket Number: 030-28575

Date Voided: 4/29/99

Reason for Void: The licensee requested that we void this action since the licensee has not disposed of all licensed material at the time of the amendment and does not know how long it will take to find licensed buyers of the material. The licensee will provide another amendment in the future when all material is disposed of and a close-out survey performed.

James Mullauer 4/29/99

Signature Date

Attachment:
Official Record Copy of
Voided Action

FOR LFMB USE ONLY

___ Refund Authorized and processed

___ No Refund Due

✓ Fee Exempt or Fee Not Required

Comments: _____ Log completed ✓

_____ Processed by: SAC 5/13/99

A/71

M2 30

JAW

9905140170 990429
PDR ADOCK 03028575
C PDR

# CONVERSATION RECORD

| TIME | DATE |
|---|---|
| 8p.m. | 4/29/99 |

O VISIT O CONFERENCE X TELEPHONE

O INCOMING
XOUTGOING

| NAME OF PERSON(S) CONTACTED OR IN CONTACT | ORGANIZATION (OFFICE, DEPT.ETC.) | TELEPHONE NO. |
|---|---|---|
| Larry Cheetham | On-Site Instruments | 614-846-3022 |

SUBJECT
Termination request dated April 9, 1999.

SUMMARY
I spoke to Larry concerning their request for termination and Larry suggested that we void the request since they have not disposed of all RAM and they don't know how long it will take to find licensed buyers of the RAM. Therefore, this action is voided.

This action is certified by Jim Mullaney 4/29/99

ACTION REQUIRED

Response due in 20 days.

ON-SITE®
INSTRUMENTS
404 Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL℠

SENT VIA FED EX PRIORITY SERVICE

April 9, 1999

Colleen Casey
United State Nuclear Regulatory Commission
Region 3
801 Warrensville Road
Lisle, IL 60532-4351

Re: Decommissioning of Facility & Termination of License: 34-24437-01

Dear Colleen:

In my letter to you dated February 5, 1999, I stated that it was our intent to decommission our facility and dispose of the sealed sources located at 404 Enterprise Drive. ON-SITE INSTRUMENTS, INC. has ceased principal business activities and is in the process of winding down the operations at 404 Enterprise Drive. We are interested in terminating our license, as quickly as, the NRC can approve the facility for unrestricted use. The real estate at 404 Enterprise will be sold after the property is deemed suitable for unrestricted use.

Since my last letter, I have conducted radiological surveys on all restricted areas of the property. The surveys included the following:

1. All Ni63 detectors were wipe tested, packaged and securely stored awaiting shipment for proper disposal. (SEE ATTACHED WIPE TEST RESULTS) Please note that I anticipate that all sources will be transferred to each respective device manufacture for disposal by April 30, 1999.

2. Following the removal of the ECD detectors, a Victoreen 190 survey meter with a pancake style probe was utilized to screen all surfaces and equipment located in the restricted areas. Each room was divided into a grid layout and each grid was surveyed with the Victoreen 190 pancake probe searching for surface contamination. Although no contamination was discovered with the survey meter, a standard wipe test was also taken from each grid and table surface in search of any removable contamination and for further confirmation of the survey meter results.

The wipe test results indicated no detectable residual beta/gamma contamination of the property or facility. (SEE ATTACHED WIPE TEST RESULTS) Because the wipe test results from the detectors did not indicate any leakage and the surface wipe tests of the areas indicated no residual contamination, the test results indicate to me that the property is currently below the threshold level of contamination that would require the areas to remain restricted from normal use.

It is my understanding that after the sources are disposed, I can submit an amendment for termination of the license.

Termination
FEE EXEMPT

Pm: 4-9-99

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305185

ON-SITE®
INSTRUMENTS
Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL™

Please be advised that due to the pending sale of the property, time is of the essence in resolving issues related to the decommissioning of the facility and termination of the license. I would appreciate any assistance you can provide to expedite this process.

I will call you next week to discuss the fees, closure survey and logistics of this further. If you have any questions, please do not hesitate to call me at 614-846-3022.

Respectfully Submitted,

On-Site Instruments, Inc.

Larry R. Cheetham
Radiation Safety Officer
President

Send all kits and requests to:

SUNTRAC SERVICES, INC.
1818 East Main Street
League City , TX 77573
Phone: 281/338-2133

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 5 mCi

SOURCE SERIAL NO. N189 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mitch Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0001 |

µ Ci. (Wet)

Certified By Rob Oh[illegible] Date 3 / 29 / 99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
SSI-02

027590

Send all kits and requests to:

SUNTRAC SERVICES, INC.

1818 East Main Street

League City , TX 77573

Phone: 281/338-2133

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. F3448 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mike Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | < .0001 |

µ Ci. (Wet)

Certified By Rob Oh

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Date 3/29/99

Revisions: November 1993
SSI-02

Send all kits and requests to:

SUNTRAC SERVICES, INC.
1818 East Main Street
League City , TX 77573
Phone: 281/338-2133

ATTN: SIT-KIT

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## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. L 6520 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mitch Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0001 |

µ Ci. (Wet)

Certified By Rob Ohmel
SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Date 3/29/99

Revisions: November 1993
SSI-02

027

Send all kits and requests to:

SUNTRAC SERVICES, INC.

1818 East Main Street

League City , TX 77573

Phone: 281/338-2133

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 5 mCi

SOURCE SERIAL NO. A7461 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mitch Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | < .0001 |

µ Ci. (Wet)

Certified By Rob O[illegible] Date 3/29/99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
SSI-02

027899

Send all kits and requests to:

SUNTRAC SERVICES, INC.

1818 East Main Street

League City , TX 77573

Phone: 281/338-2133

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. K4370 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mitch Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0001 |

μ Ci. (Wet)

Certified By [signature] Date 3/29/99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
SSI-02

027599

Send all kits and requests to:

SUNTRAC SERVICES, INC.

1818 East Main Street

League City , TX 77573

Phone: 281/338-2133

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. F1125 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mitch Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0001 |

µ Ci. (Wet)

Certified By Rob Ohl Date 3/29/99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
SSI-02

027899

Send all kits and requests to:

SUNTRAC SERVICES, INC.

1818 East Main Street

League City , TX 77573

Phone: 281/338-2133

ATTN: SIT-KIT

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## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. F3785 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mitch Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0001 |

μ Ci. (Wet)

Certified By Rob Oh

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Date 3/29/99

Revisions: November 1993
SSI-02

027899

Send all kits and requests to:

**SUNTRAC SERVICES, INC.**

**1818 East Main Street**

**League City , TX 77573**

**Phone: 281/338-2133**

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. K5188 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mitch Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0001 |

μ Ci. (Wet)

Certified By Rob Ohl Date 3/29/99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
SSI-02

027899

Send all kits and requests to:

**SUNTRAC SERVICES, INC.**

**1818 East Main Street**

**League City , TX 77573**

**Phone: 281/338-2133**

ATTN: SIT-KIT

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## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. A9203 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY MITCH BAUER

--- --- --- --- --- --- --- **DO NOT WRITE BELOW THIS LINE** --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | < .0001 |

μ Ci. (Wet)

Certified By [signature] Date 3/29/99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
SSI-02

027699

Send all kits and requests to:

SUNTRAC SERVICES, INC.

1818 East Main Street

League City , TX 77573

Phone: 281/338-2133

ATTN: SIT-KIT

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## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 8 mCi

SOURCE SERIAL NO. A9202 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mike Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0001 |

µ Ci. (Wet)

Certified By R.L. Ohl Date 3/29/99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
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027899

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League City , TX 77573

Phone: 281/338-2133

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. F4454 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mike Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0001 |

µ Ci. (Wet)

Certified By [signature] Date 3/29/99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
SSI-02

027899

Send all kits and requests to:

SUNTRAC SERVICES, INC.

1818 East Main Street

League City , TX 77573

Phone: 281/338-2133

ATTN: SIT-KIT

CAUTION: Conduct a survey on the outside of each package placed in the U.S. Mails. Any reading over 0.5 mR/hr at contact with the envelope or package shall not be mailed.

## LEAK TEST INVENTORY/REPORT FORM

COMPANY NAME On-Site Instruments

ADDRESS 404 Enterprise Drive CITY Lewis Center ST OH ZIP 43035

ISOTOPE Ni 63 ACTIVITY 15 mCi

SOURCE SERIAL NO. L5965 LEAK TEST DATE 3/10/99

SMEAR TAKEN BY Mike Baker

--- --- --- --- --- --- --- DO NOT WRITE BELOW THIS LINE --- --- --- --- --- --- ---

This is to certify that the above described smear/swab has been assayed at our facilities for indication of source leakage.

Our findings show the leakage to be

| ALPHA | BETA-GAMMA |
|---|---|
| — | <.0004 |

µ Ci. (Wet)

Certified By Rob Ohmel Date 3/29/99

SUNTRAC Services, Inc. Representative
(Texas Radioactive License No. LO-3062)

Revisions: November 1993
SSI-02

0278

# SUN RAC Services, Inc.

March 19, 1999

Mr. Mitch Baker
On-Site Instruments
404 Enterprise Dr.
Lewis Center, OH 43035

Mr. Baker:

The following results are from the analysis of the alpha and beta/gamma removable contamination test samples received at our facility on March 19,1999.

| SAMPLE | ALPHA (CCPM) | BETA/GAMMA (CCPM) | GAS PROPORTIONAL COUNTER (CCPM) |
|---|---|---|---|
| S/L01 | 3 | 0 | 0 |
| S/L02 | 1 | 0 | 0 |
| S/L03 | 0 | 0 | 0 |
| S/L04 | 0 | 0 | 0 |
| S/L05 | 0 | 0 | 0 |
| S/L06 | 0 | 0 | 0 |
| S/L08 | 0 | 0 | 0 |
| S/L10 | 0 | 0 | 0 |
| S/L11 | 0 | 0 | 0 |
| S/L12 | 0 | 0 | 0 |
| S/L13 | 0 | 0 | 0 |
| S/L14 | 0 | 0 | 0 |
| S/L15 | 0 | 0 | 0 |
| S/L16 | 0 | 0 | 0 |
| S/L17 | 0 | 0 | 0 |
| S/L18 | 0 | 0 | 0 |
| S/L19 | 1 | 0 | 0 |
| S/L20 | 3 | 0 | 0 |
| S/L21 | 0 | 0 | 0 |
| S/L22 | 0 | 0 | 0 |
| S/L23 | 0 | 0 | 0 |
| S/L24 | 0 | 0 | 0 |
| S/L25 | 0 | 0 | 0 |
| S/L26 | 0 | 0 | 0 |
| S/L27 | 0 | 0 | 0 |
| S/L27 | 0 | 0 | 0 |
| S/L28 | 1 | 0 | 0 |
| S/L29 | 0 | 0 | 0 |
| S/L30 | 4 | 0 | 0 |
| S/L31 | 0 | 0 | 0 |
| S/L32 | 0 | 0 | 0 |
| S/L33 | 0 | 0 | 0 |
| S/L34 | 0 | 0 | 0 |
| S/L35 | 0 | 0 | 0 |
| S/L36 | 0 | 0 | 0 |

1818 East Main Street
League City, Texas 77573

"Your Radiological Safety Consultants Since 1981"

(281) 338-2133
Fax: (281) 338-2136

# SUNTRAC Services, Inc.

March 23, 1999

Mr. Mitch Baker
On-Site Instruments
404 Enterprise Dr.
Lewis Center, OH 43035

Mr. Baker:

The following results are from the analysis of the alpha and beta/gamma removable contamination test samples received at our facility on March 23,1999.

| SAMPLE | ALPHA (CCPM) | BETA/GAMMA (CCPM) | GAS PROPORTIONAL COUNTER (CCPM) |
|---|---|---|---|
| Branson 5200 | 0 | 0 | 0 |
| Hepa Hood | 0 | 0 | 0 |
| Raducha Frdg. | 0 | 0 | 0 |
| SH 01 | 0 | 0 | 0 |
| SH 02 | 0 | 0 | 0 |
| SH 03 | 2 | 0 | 0 |
| SH 04 | 1 | 0 | 0 |
| SH 05 | 6 | 0 | 0 |
| SH 06 | 0 | 0 | 0 |
| SH 07 | 0 | 0 | 0 |
| SH 08 | 0 | 0 | 0 |
| SH 09 | 0 | 0 | 0 |
| SH 10 | 0 | 0 | 0 |
| SH 11 | 0 | 0 | 0 |
| SH 12 | 0 | 0 | 0 |
| SH 13 | 0 | 0 | 0 |
| SH 14 | 0 | 0 | 0 |
| SH 15 | 0 | 0 | 0 |
| T 15 | 0 | 0 | 0 |
| T 59 | 0 | 0 | 0 |
| WL 01 | 0 | 0 | 0 |
| WL 02 | 0 | 0 | 0 |
| WL 03 | 2 | 0 | 0 |
| WL 04 | 0 | 0 | 0 |
| WL 05 | 0 | 0 | 0 |
| WL 06 | 0 | 0 | 0 |
| WL 07 | 0 | 0 | 0 |
| WL 08 | 0 | 0 | 0 |
| WL 09 | 0 | 0 | 0 |

If you have any questions, please give me a call.

Sincerely,

Ricky Crouch
Radiation SafetySpecialist

1818 East Main Street
League City, Texas 77573

"Your Radiological Safety Consultants Since 1981"

(281) 338-2133
Fax: (281) 338-2136

| SAMPLE | ALPHA (CCPM) | BETA/GAMMA (CCPM) | GAS PROPORTIONAL COUNTER (CCPM) |
|---|---|---|---|
| T42 | 1 | 0 | 0 |
| T43 | 3 | 0 | 0 |
| T44 | 1 | 0 | 0 |
| T45 | 0 | 0 | 0 |
| T46 | 0 | 0 | 0 |
| T47 | 0 | 0 | 0 |
| T48 | 0 | 0 | 0 |
| T49 | 0 | 0 | 0 |
| T50 | 0 | 0 | 0 |
| T51 | 1 | 0 | 0 |
| T52 | 1 | 0 | 0 |
| T53 | 0 | 0 | 0 |
| T54 | 0 | 0 | 0 |
| T55 | 0 | 0 | 0 |
| T56 | 0 | 0 | 0 |
| T57 | 0 | 0 | 0 |

CCPM=Corrected Counts per Minute

If you have any questions, please give me a call.

Sincerely,

Ricky Crouch
Radiation SafetySpecialist

| SAMPLE | ALPHA (CCPM) | BETA/GAMMA (CCPM) | GAS PROPORTIONAL COUNTER (CCPM) |
|---|---|---|---|
| S/L37 | 0 | 0 | 0 |
| S/L38 | 1 | 0 | 0 |
| S/L39 | 0 | 0 | 0 |
| S/L40 | 0 | 0 | 0 |
| S/L41 | 1 | 0 | 0 |
| S/L42 | 0 | 0 | 0 |
| S/L43 | 0 | 0 | 0 |
| S/L44 | 0 | 0 | 0 |
| S/L45 | 0 | 0 | 0 |
| S/L46 | 0 | 0 | 0 |
| S/L9 | 0 | 0 | 0 |
| T01 | 1 | 0 | 0 |
| T02 | 1 | 0 | 0 |
| T03 | 0 | 0 | 0 |
| T04 | 0 | 0 | 0 |
| T05 | 0 | 0 | 0 |
| T06 | 0 | 0 | 0 |
| T07 | 0 | 0 | 0 |
| T08 | 0 | 0 | 0 |
| T09 | 0 | 0 | 0 |
| T10 | 0 | 0 | 0 |
| T11 | 0 | 0 | 0 |
| T12 | 0 | 0 | 0 |
| T13 | 0 | 0 | 0 |
| T14 | 1 | 0 | 0 |
| T15 | 0 | 0 | 0 |
| T16 | 0 | 0 | 0 |
| T17 | 0 | 0 | 0 |
| T19 | 0 | 0 | 0 |
| T19 | 0 | 0 | 0 |
| T20 | 1 | 0 | 0 |
| T21 | 0 | 0 | 0 |
| T22 | 0 | 0 | 0 |
| T23 | 2 | 0 | 0 |
| T24 | 0 | 0 | 0 |
| T25 | 0 | 0 | 0 |
| T26 | 1 | 0 | 0 |
| T27 | 0 | 0 | 0 |
| T28 | 0 | 0 | 0 |
| T29 | 0 | 0 | 0 |
| T30 | 1 | 0 | 0 |
| T31 | 0 | 0 | 0 |
| T32 | 0 | 0 | 0 |
| T33 | 1 | 0 | 0 |
| T34 | 0 | 0 | 0 |
| T35 | 0 | 0 | 0 |
| T36 | 0 | 0 | 0 |
| T37 | 0 | 0 | 0 |
| T38 | 0 | 0 | 0 |
| T39 | 1 | 0 | 0 |
| T40 | 0 | 0 | 0 |
| T41 | 0 | 0 | 0 |

# SUNTRAC Services, Inc.

March 24, 1999

Mr. Mitch Baker
On-Site Instruments
404 Enterprise Dr.
Lewis Center, OH 43035

Mr. Baker:

The following results are from the analysis of the alpha and beta/gamma removable contamination test samples received at our facility on March 24,1999.

| SAMPLE | ALPHA (CCPM) | BETA/GAMMA (CCPM) | GAS PROPORTIONAL COUNTER (CCPM) |
|---|---|---|---|
| CC | 0 | 0 | 0 |
| CD 01 | 0 | 0 | 0 |
| CD 02 | 0 | 0 | 0 |
| Comp Dsk. | 0 | 0 | 0 |
| MC | 0 | 0 | 0 |
| MD | 0 | 0 | 0 |
| P 01 | 0 | 0 | 0 |
| P 02 | 0 | 0 | 0 |
| P 03 | 0 | 0 | 0 |
| P 04 | 0 | 0 | 0 |
| P 05 | 0 | 0 | 0 |
| P 06 | 0 | 0 | 0 |
| P 07 | 0 | 0 | 0 |
| P 08 | 0 | 0 | 0 |
| P 09 | 0 | 0 | 0 |
| P 10 | 1 | 0 | 0 |
| P 11 | 0 | 0 | 0 |
| P 12 | 0 | 0 | 0 |
| P 13 | 0 | 0 | 0 |
| P 14 | 0 | 0 | 0 |
| P 15 | 0 | 0 | 0 |
| P 16 | 0 | 0 | 0 |
| P 17 | 0 | 0 | 0 |
| P 18 | 0 | 0 | 0 |
| P 19 | 1 | 0 | 0 |
| Rad Cabinet | 0 | 0 | 0 |
| S 01 | 0 | 0 | 0 |
| S 02 | 0 | 0 | 0 |
| S 03 | 0 | 0 | 0 |
| S 04 | 0 | 0 | 0 |
| S Back Table | 2 | 0 | 0 |
| S Big Sink | 1 | 0 | 0 |
| S Sm. Sink | 2 | 0 | 0 |
| S/L ECD Hood Bottom | 0 | 0 | 0 |
| S/L ECD Hood Top | 1 | 0 | 0 |
| S/L Fume Hood Left | 1 | 0 | 0 |
| S/L Fume Hood Right | 0 | 0 | 0 |

1818 East Main Street
League City, Texas 77573

"Your Radiological Safety Consultants Since 1981"

(281) 338-2133
Fax: (281) 338-2136

| | | | |
|---|---|---|---|
| WL Fume Hood | 0 | 0 | 0 |
| WL Sink | 0 | 0 | 0 |
| WLT 01 | 0 | 0 | 0 |
| WLT 02 | 0 | 0 | 0 |
| WLT 03 | 0 | 0 | 0 |
| WLT 04 | 1 | 0 | 0 |
| WLT 05 | 0 | 0 | 0 |
| WLT 06 | 0 | 0 | 0 |
| WLT 07 | 0 | 0 | 0 |
| WLT 08 | 1 | 0 | 0 |
| WLT 09 | 0 | 0 | 0 |
| WLT 10 | 2 | 0 | 0 |
| WLT 11 | 0 | 0 | 0 |
| WLT 12 | 0 | 0 | 0 |
| WLT 13 | 0 | 0 | 0 |
| WLT 14 | 1 | 0 | 0 |
| WLT 15 | 0 | 0 | 0 |

CCPM=Corrected Counts per Minute

If you have any questions, please give me a call.

Sincerely,

Ricky Crouch
Radiation SafetySpecialist

ON-SITE®
INSTRUMENTS
Enterprise Drive
Lewis Center, Ohio 43035
1-800-766-7483
(614)-846-3022
Fax (614)-844-3994
EnviroRENTAL℠

July 6, 1999

Director of Nuclear Material Safety and Safeguards
UNITED STATES NUCLEAR REGULATORY COMMISSION
Region 3
801 Warrensville Road
Lisle, IL 60532-4351

Dear Director:

Please be advised that ON-SITE INSTRUMENTS, INC., formally requests that our license # 34-24437-01 be terminated immediately. All ECD detector sources have been returned to the respective manufacturers for disposal or decommissioning. Please reference my letter to Colleen Casey dated April 9, 1999 for information related to wipe tests of the 404 Enterprise facility and ECD detectors. I have also included disposal documentation for your review. If you have any questions, please feel free to call me at 614-836-3022.

Very truly yours,

On-SITE INSTRUMENTS, INC.

Larry R. Cheetham
Radiation Safety Officer

FEE EXEMPT

Pm: 7-9-99

A/72

RECEIVED
JUL 13 1999
REGION III

305467

JUL 13 1999

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03240
Status Code: 0
Fee Category: 3P
Exp. Date: 20000731
Fee Comments: _____
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
   Applicant/Licensee: ON-SITE INSTRUMENTS INCORPORATED
   Received Date: 19990713
   Docket No: 3028575
   Control No.: 305467
   License No.: 34-24437-01
   Action Type: Termination

2. FEE ATTACHED
   Amount: 0
   Check No.: 0

3. COMMENTS

Signed D. Hersey
Date 7-19-99

56
MS 23
IN

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / )

1. Fee Category and Amount: 3P

FEE EXEMPT

2. Correct Fee Paid. Application may be processed for:
   Amendment ✓
   Renewal _____
   License _____

3. OTHER _____

Signed SC
Date 7/19/99

Log July 7, 99
Remitter
Check No.
Amount
Fee Category 3P
Type of Fee Amd
Date Check Rec'd
Date Completed 7/19/99
By: SC

A/ 73

Checklist also - I certify that 4/19/99 procedure was followed in review of this request, as well as applicable regs. and guidance. Colleen C. Casey 7/20/99

Materials License Termination/Retirement Form

LICENSE #(s): 34-24437-01
ADDRESS: 404 ENTERPRISE DRIVE
LEWIS CENTER, OHIO

DOCKET #(s): 030-28575
EXPIRATION DATE: 7/31/00
DATE OF CONTACT: N/A
CONTACTED BY:
TITLE:
TELEPHONE:

LICENSE TERMINATED: ✓

LICENSE TRANSFERRED: ____

LICENSE TRANSFERRED TO: Name: ____
Address: ____

Telephone: ____

BASIS FOR TERMINATION AND/OR RETIREMENT: Licensee has disposed of all nickel-63 gas chromatography sources, which never leaked, and wants to terminate the license. Thirteen sources on inventory all accounted for.

TERMINATION DOCUMENTATION

1. License termination meets Type I criteria: Y ✓ N ____

✓ Licensee used sealed sources only and the most recent leak test demonstrates that they did not leak while in the licensee's possession

____ Licensee used radioactive material with $T_{1/2} \leq 60$ days and it has decayed to less than the activity in 10 CFR Part 20 Appendix C

2. License termination meets Type II criteria: Y ____ N ____

____ Licensee possessed and used only sealed sources but cannot demonstrate that the sources did not leak while in the licensee's possession

____ Licensee possessed unsealed radioactive material with $T_{1/2} \leq$ 60 days but the maximum activity authorized under the license has not decayed to less than the quantity specified in 10 CFR Part 20, Appendix C

____ Licensee possessed unsealed radioactive material with $T_{1/2} >$ 60 days but $\leq$ 120 days.

____ Licensee possessed $^{14}C$ or $^{3}H$ but the total activity(s) and use authorized under the license warrants decommisoning under Type II (describe rationale above)

A/74

3. License termination meets Type III criteria: Y ____ N ____

____ Decommissioning qualifies for a categorical exclusion under 10 CFR 51.22 (c) *and*

____ Licensee will decommission its facility in accordance with the NRC's criteria for unrestricted use.

4. License termination meets Type IV criteria: Y ____ N ____

____ Decommissioning does not qualify for a categorical exclusion under 10 CFR 51.22 (c)

____ Licensee will decommission its facility such that residual radioactive material may remain in excess of NRC's criteria for unrestricted use.

5. Termination survey required: Y ____ N ✓

____ Termination survey submitted by licensee

____ Termination survey satisfies NRC survey requirements

6. Form 314 or equivalent submitted: Y ✓ N ____

✓ Staff verified disposition of sealed sources: or unsealed radioactive material
by:
✓ letter from Form 314 recipient
___ call to Form 314 recipient

7. Licensee transfer records discussed in 10 CFR Parts 30.35, 30.36, 30.51; 40.36, 40.42, 40.61; or 70.25, 70.38, 70.51 Y ✓ N ____

✓ To USNRC
✓ To individual assuming responsibility for the license, with a copy of the cover letter to NRC *as appropriate*.

8. NRC closeout inspection required: Y ____ N ✓

____ Closeout inspection performed:
on: _____
Inspector: _____

9. Closeout survey performed: Y ____ N ✓
on: _____
by: _____

Licensing assistant completing form: _____ Date: _____

or

License reviewer completing form: Colleen C. Casey Date: 7/20/99

Branch Chief: _____ Date: _____

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

JUL 21 1999

Larry R. Cheetam
Radiation Safety Officer
On-Site Instruments, Inc.
404 Enterprise Drive
Lewis Center, OH 43035

SUBJECT: TERMINATION OF YOUR NRC RADIOACTIVE MATERIALS LICENSE

Dear Mr. Cheetam:

In your letter dated July 6, 1999, you contacted the U.S. Nuclear Regulatory Commission and indicated that you wished to terminate your NRC radioactive material license. The NRC staff has reviewed your final status data. Based on its review, the staff has concluded that all licensable radioactive material has been removed from your facility.

Based on these conclusions no further actions with respect to NRC regulated material is required. Your facility is suitable for unrestricted use and NRC license number 34-24437-01 is hereby terminated.

If you have any questions, please call me at (630) 829-9841.

Sincerely,

Colleen C. Casey

Colleen C. Casey
Materials Licensing Branch

License No. 34-24437-01
Docket No. 030-28575

Enclosure: Amendment No. 06

A175
305467

NRC FORM 374A U.S. NUCLEAR REGULATORY COMMISSION



License Number
34-24437-01

Docket or Reference Number
030-28575

Amendment No. 06

# MATERIALS LICENSE
## SUPPLEMENTARY SHEET

305467

On-Site Instruments, Inc.

404 Enterprise Drive
Lewis Center, OH 43035

In accordance with the letter dated July 6, 1999, License Number 34-24437-01 is hereby terminated.

UNITED STATES NUCLEAR REGULATORY COMMISSION

TERMINATED

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JUL 21 1999

By Colleen C. Casey
Colleen C. Casey
Materials Licensing Branch
Region III

000065

9908090056 990721
PDR ADOCK 03028575
C PDR

COPY

2 ML 30 JAW

JAN 31 1994

On-Site Instruments, Inc.
ATTN: David P. Cheetham
689 N. James Road
Columbus, OH 43219-1837

Information in this record was deleted in accordance with the Freedom of Information Act, exemptions 6
FOIA- 2000-0235

Dear Mr. Cheetham:

Enclosed is Amendment No. 04 to your NRC Material License No. 34-24437-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Notify NRC, in writing, within 30 days:

   a. When an authorized user or Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or

   b. When the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).

3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:

   a. When you decide to terminate all activities involving materials authorized under the license; or

   b. If you decide not to complete the facility, acquire equipment, or possess and use authorized material.

B/1
396080

4. Request and obtain a license amendment before you:

   a. Change Radiation Safety Officers;

   b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;

   c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or

   d. Change ownership of your organization.

5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Original Signed By
Peter J. Lee, Ph.D.
Nuclear Materials Licensing Section

Enclosure: Amendment No. 04

RIII

Lee/bt
01/27/94

ON-SITE
INSTRUMENTS
[illegible] James Road
Columbus, Ohio 43219-1837
(614) 237-3022
1-800-[illegible]-7483
FAX (614) 237-1914

November 11, 1993

David P Cheetham
(614)237-3022
Senior Vice President

William J Adam, Ph.D.
United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Dr. Adam:

Licensee On-Site Instruments, License number 34-24437-01 wishes to amend the following sections of our US NRC license.

Section 6. B. We wish to delete section 6.B. We are not and will not be leak testing samples.

Section 9.B. We wish to delete section 9.B. (For possession incident to the collection and analysis of leak test samples as a service to individuals specifically licensed and individuals generally licensed pursuant to 10 CFR 31.5.) We are not and will not be possessing leak test samples as a service to other individuals.

Section 10 We wish to change"Licensed material shall be used by, or under the supervision of, Richard E. Herrold or James A. Snyder." to read "Licensed material shall be used by, or under the supervision of, David P. Cheetham or James Kotopka." (See attached resumes of David P. Cheetham and James Kotopka)

I have enclosed two copies of this amendment. Please contact me if any further information is needed.

Sincerely,

David P Cheetham
Senior Vice President

Log Nov 16 III
Remitter
Check No. 13694
Amount $360.00
Fee Category 3P
Type of Fee Amendment
Date Check Rec'd
Date Completed 1/3/94
By: AC

RECEIVED
NOV 19 1993
REGION III

CONTROL NO. 396080

NOV 19 1993

ON-SITE INSTRUMENTS
[illegible] James Road
Columbus, Ohio 43219-1837
(614) 237-3022
1-800-[illegible]-7483
FAX (614) 237-1914

November 11, 1993

David P Cheetham
(614)237-3022
Senior Vice President

William J Adam, Ph.D.
United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, IL 60137

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Section 9.B. We wish to delete section 9.B. (For possession incident to the collection and analysis of leak test samples as a service to individuals specifically licensed and individuals generally licensed pursuant to 10 CFR 31.5.) We are not and will not be possessing leak test samples as a service to other individuals.

Section 10 We wish to change"Licensed material shall be used by, or under the supervision of, Richard E. Herrold or James A. Snyder." to read "Licensed material shall be used by, or under the supervision of, David P. Cheetham or James Kotopka." (See attached resumes of David P. Cheetham and James Kotopka)

I have enclosed two copies of this amendment. Please contact me if any further information is needed.

Sincerely,

David P Cheetham

David P Cheetham
Senior Vice President

CONTROL NO. 396080

NRC FORM 374
(10-89)

U.S. NUCLEAR REGULATORY COMMISSION



# MATERIALS LICENSE

Amendment No. 02

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, 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.

| Licensee | |
|---|---|
| 1. On-Site Instruments, Inc. | In accordance with letter dated February 19, 1990<br>3. License number 34-24437-01 is renewed in its entirety to read as follows: |
| 2. 689 N. James Road<br>Columbus, OH 43219-1837 | 4. Expiration date: July 31, 1995 |
| | 5. Docket or Reference No.: 030-28575 |

| 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. Nickel-63 | A. Foil sources (Hewlett-Packard Detector Cell Model No. 19233 or Varian Detector Cell Model No. 02-001972-00) | A. No single detector cell to exceed 15 millicuries 5 curies total |
| B. Nickel-63 | B. Leak test samples | B. See Item 9.B., below |

9. Authorized Use:

A. For possession incident to cleaning and repair of detector cells. Redistribution of detector cells to individuals specifically licensed and to individuals generally licensed pursuant to 10 CFR 31.5, in accordance with 10 CFR 32.51.

B. For possession incident to the collection and analysis of leak test samples as a service to individuals specifically licensed and individuals generally licensed pursuant to 10 CFR 31.5.

## CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 689 North James Road, Columbus, Ohio.

11. Licensed material shall be used by, or under the supervision of, Richard E. Herrold or James A. Snyder.

CONTROL NO. 396080

5

COPY

DAVID P. CHEETHAM
On-Site Instruments
689 North James Road
Columbus, Ohio 43219

## Professional Experience

*Instructor: Illinois Fire Service Institute - First Responder Training
*GC Operator Trainer: Illinois State Geological Survey
*Directed SMI Mobile Lab at DOE Portsmouth Uranium Enrichment Plant (RCRA Facility Investigation 1991-92
*Soil Sampling
*Air Sampling
*Water Sampling and Analysis by GC
*Hazardous Materials Emergency Response
*Soil Gas Surveys for UST Removal
*Phase 1 Real Estate Assessments
*Industrial Hygiene Sampling
*Air Pollution Monitoring
*Field Screening
*Expertise with a wide variety of direct reading instruments
*Extensive training and experience with a variety of laboratory systems

## Training

40 Hour OSHA Training (29 CFR 1910.120)
8 Hour OSHA Refresher Training
40 Hour OSHA Training Instructor
EPA Asbestos Inspector Certification
8 Hour OSHA Supervisor Training
Portable XRF Analyzer Training
Photovac GC Operator Training
40 Hour Radiation Safety Officer Training - June1993
Current Dept of Energy "L" Security Clearance

## Education

The Ohio State University - June 1983
Associates Degree - Arts and Sciences

## Memberships

Member Central Ohio AIHA Chapter
Member HMCRI

CONTROL NO. 396080

# CERTIFICATE OF ACHIEVEMENT

This is to Certify that

**DAVID P. CHEETHAM**

Has Completed 40 Hours of

**Radiation Safety Officer Training**

June 7-11, 1993

Radiation Safety Associates, Inc.

K. Paul Steinmeyer
Radiation Safety Associates, Inc.

CERTIFICATE NO. 896080

© GOES 746

LITHO IN U.S.A.

# JAMES L. KOTOPKA

[redacted]

EX.6

## EDUCATION

BACHELOR OF SCIENCE - ELECTRONICS ENGINEERING TECHNOLOGY
DeVry Institute of Technology
Columbus, Ohio

GPA: 3.32/4.0 while working 25 hours a week
Honor: Dean's List all 6 trimesters
Graduated: February, 1991

ASSOCIATE OF APPLIED SCIENCE - ELECTRONICS
Belmont Technical College
St. Clairsville, Ohio
Graduated: June, 1988

## PROFICIENCIES

| | COURSES | SOFTWARE |
|---|---|---|
| ICROPROCESSORS: | 8085, 8086, 8088<br>6800, 68000<br>HP64000 Assembler | C Language<br>Assembler<br>OR-CAD<br>Schema |
| OMMUNICATIONS: | Analog (AM, FM, and PCM)<br>Digital (Modems, RS-232, and Error Detection)<br>Advanced Communications (Transmission Lines, Waveguides, and Microwave Tubes) | |
| THER ELECTRONICS: | OP-AMPS<br>DC-AC Machinery<br>Industrial Electronics<br>Amplifiers<br>Automatic Controls | Microprocessor Control Systems<br>Programmable Logic Controllers<br>Digital Systems<br>Transform Analysis |

## QUALIFICATIONS

XPERIENCED IN THE FOLLOWING INSTRUMENTS:

Hewlett Packard
5890 Series II Gas Chromatography Instrument
7673 Autosamplers
3396 Integrator
6-Port Valving System
Electronic Pressure Control
Detectors: ECD, FID, FPD, TCD, NPD
Injectors: Packed, Capillary, Purged Packed

Tekmar
LSC 2000, 2016

O.I. Analytical
Detectors: PID, FID, ELCD

CONTROL NO. 396080

PROJECT: Built and Programmed an 8085 Microprocessor

LAB ROOM EXPERIENCE: Completed over 650 hours of Lab Room Experience
Wrote over 50 Lab Reports

## WORK EXPERIENCE

INSTRUMENTATION ENGINEER — ON-SITE INSTRUMENTS — APRIL 1991 - PRESENT

* Experienced in Gas Chromatography field service repairs and installations
* Responsible for all instrumentation repairs and calibrations
* Very knowledgeable in Hewlett Packard GC's, as well as Tekmar Purge and Trap
* Configure Hewlett Packard GC's with any type injector or detector
* Solve customer problems and questions on a daily basis

PART-TIME SALESMAN — RADIO SHACK — MARCH 1990 - APRIL 1992

* Gained communication skills from dealing with the public on a daily basis
* Responsible for doing daily report and depositing money
* Acted as supervisor in the absence of the full-time supervisor
* Help individuals solve computer and electronic problems

PART-TIME MAINTENANCE MAN — OXFORD APARTMENTS — JUNE 1989 - OCTOBER 1989

* Maintained all electrical appliances, intercom systems, and air conditioners
* Gained knowledge in troubleshooting and working with another electrician

PART-TIME SECURITY — KAUFMANN'S — JULY 1986 - OCTOBER 1988

* Was responsible for opening and closing of store
* Worked with other detectives in theft prevention

**JAMES L. KOTOPKA**
[redacted]

EX. 6

CONTROL NO. 396080