

To: Steven Courtemanche

Nuclear Materials safety Branch 1

Fax#: 610-337-5269

From: Behrouz Khanvali

ADAC UGM

Phone #: 215-243-2641

Re: Sealed source inventory and wipe test results

Number of pages attached: 9

### MEDICAL PHYSICS SURVEY SEALED SOURCE STORAGE SITE SURVEYS

FACILITY: Philips Medical Systems

LOCATION: Philadelphia, PA

#### LOCATION OF SURVEY AND RESULTS IN MREM/HR

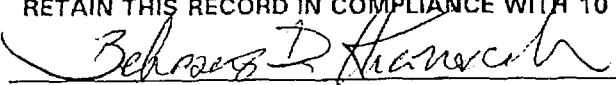
DATE	SURVEY METER (Serial Number)	A	B	C	D	E	SURVEYOR
9/4/03	770617	0.16	0.19	1.00	0.03	1.50	MWL

LOCATION KEY:

- A. Hot Lab preparation area
- B. Sealed source storage (under counter)
- C. Waste Storage Area
- D. Background
- E. Pet Prep and Scanning Room

RETAIN THIS RECORD IN COMPLIANCE WITH 10 CFR 35.59(i)

RSO Signature



• See Report

992

### SEALED SOURCE INVENTORY

FACILITY: Philips Medical Systems  
 LOCATION: Philadelphia, PA

DEPARTMENT: PET Facility

Nuclide:	Cs-137	Cs-137	Cs-137	Cs-137	Cs-137	Cs-137	Cs-137
Type:	Vial	Rod	Rod	Rod	Rod	Rod	Rod
Location:	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab
Assay: (Date)	204.1 uCi 11/01/2002	5.0 mCi 10/02/2002	20.0 mCi 03/15/2001	5.0 mCi 6/1/2000	1.0 mCi 05/05/1995	.500 uCi 06/1/2003	5.0 mCi 02/01/2003
Mgr:	IPL (Synco)	IPL	IPL	IPL	IPL	IPL	IPL
Serial No.:	935-62-6	CZ-290	XX-714	CZ-186	DD-727	780-16-44	CZ-172
Model:	RV-137-200U	HEG-0096	HEG-137-M	---	---	GF-0008	HEG-0096

DATE							
9/4/03	X	X	X	X	X	X	X

X - INDICATES SOURCE INVENTORIED  
 A - Returned to Manufacturer

RSO Signature Behrooz D. Khavari

\* See Report 992

### SEALED SOURCE INVENTORY

FACILITY: Philips Medical Systems

DEPARTMENT: PET Facility

LOCATION: Philadelphia, PA

Nuclide:	Na-22	Na-22	Na-22	Na-22	Na-22	Na-22
Type:	Disc	Disc	Disc	Disc	Disc	Disc
Location:	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab
Assay: (Date)	0.10 mCi 02/01/2001	0.10 mCi 05/01/2002	0.10 mCi 05/01/2002	0.10 mCi 01/18/2001	0.10 mCi 10/27/2000	0.10 mCi 10/20/2000
Mgr:	IPL	IPL	IPL	IPL	IPL	IPL
Serial No.:	747-7-8	730-92-30	730-92-29	747-7-5	730-20-9	730-20-5
Model:	GF-0227	GF-0227	GF-0227	GF-0227	GF-0227	GF-0227
DATE						
9/4/03	X	X	X	X	X	X

X - INDICATES SOURCE INVENTORIED  
A - Returned to Manufacturer

RSO Signature *Behrooz D. Khavari*

### SEALED SOURCE INVENTORY

FACILITY: Philips Medical Systems  
 LOCATION: Philadelphia, PA

DEPARTMENT: PET Facility

Nuclide:	Ge-68	Ge-68	Ge-68	Ge-68	Ge-68	Ge-68	Ge-68
Type:	Cylinder	Rod	Rod	Rod	Rod	Rod	Rod
Location:	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab
Assey: (Date)	0.75 mCi 07/10/2001	10.0 mCi 01/27/2000	10.0 mCi 08/19/1997	5.0 mCi 03/01/1996	5.0 mCi 02/16/1990	5.0 mCi 02/01/1994	5.0 mCi 11/15/1991
Mgr:	IPL	IPL	IPL	IPL	IPL	IPL	IPL
Serial No.:	730-50-01	RR-450	LL-146	FF-942	30R	Z379	R-553
Model:	EG-0310	HEG-0108	---	---	---	---	---
DATE							
9/4/03	X	X	X	X	X	X	X

X - INDICATES SOURCE INVENTORIED  
 A - Returned to Manufacturer

RSO Signature Behnam D. Khenrad

## MEDICAL PHYSICS SURVEY SEALED SOURCE LEAK TEST ANALYSIS REPORT

**FACILITY:** Philips Medical Systems                      **DEPARTMENT:** PET Facility  
**LOCATION:** Philadelphia, PA                                      **ATTENTION:** Behrouz Kanvalli, RSO

*Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.001 uCi, unless otherwise noted, when compared against NIST traceable standards.*

**Source:** Cs-137, Vial; 204.1 uCi on 11/01/2002; IPL S/N: 935-62-6; RV-137-200U

**Date:** 9/4/03  
**Wipe No.:** PM1  
**MDA (uCi):** 5.6E-5  
**Net CPM:** 28  
**Net uCi:** <MDA  
**CPM for  
0.001 uCi:** 236  
**Analyst:** M. Lairmore

**Source:** Cs-137 Rod, 5.0 mCi on 10/02/2002, IPL, S/N: CZ-290; Model #HEG-0096

**Date:** 9/4/03  
**Wipe No.:** PM2  
**MDA (uCi):** 5.6E-5  
**Net CPM:** 16  
**Net uCi:** <MDA  
**CPM for  
0.001 uCi:** 236  
**Analyst:** M. Lairmore

**Source:** Cs-137, 20.0 mCi on 03/15/2001; IPL; S/N: XX-714; Model #: HEG-137-M

**Date:** 9/4/03  
**Wipe No.:** PM3  
**MDA (uCi):** 5.6E-5  
**Net CPM:** 11  
**Net uCi:** <MDA  
**CPM for  
0.001 uCi:** 236  
**Analyst:** M. Lairmore

**RSO Signature**

*Behrouz Kanvalli*

### MEDICAL PHYSICS SURVEY SEALED SOURCE LEAK TEST ANALYSIS REPORT

**FACILITY:** Philips Medical Systems

**DEPARTMENT:** PET Facility

**LOCATION:** Philadelphia, PA

**ATTENTION:** Behrouz Kanvalli, RSO

*Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.001 uCi, unless otherwise noted, when compared against NIST traceable standards.*

**Source:** Cs-137, Rod; 5.0 mCi on 6/1/2000; IPL S/N: CZ-186

**Date:** 9/4/03

**Wipe No.:** PM4

**MDA (uCi):** 5.6E-5

**Net CPM:** 28

**Net uCi:** <MDA

**CPM for  
0.001 uCi:** 236

**Analyst:** M. Lairmore

**Source:** Cs-137 Rod, 1.0 mCi on 05/05/1995, IPL, S/N: DD-727

**Date:** 9/4/03

**Wipe No.:** PM5

**MDA (uCi):** 5.6E-5

**Net CPM:** 30

**Net uCi:** <MDA

**CPM for  
0.001 uCi:** 236

**Analyst:** M. Lairmore

**Source:** Cs-137 Rod, 5.0 mCi on 02/01/2003; IPL; S/N: CZ-172; Model #: HEG-0096

**Date:** 9/4/03

**Wipe No.:** PM6

**MDA (uCi):** 5.6E-5

**Net CPM:** 11

**Net uCi:** <MDA

**CPM for  
0.001 uCi:** 236

**Analyst:** M. Lairmore

**RSO Signature**



## MEDICAL PHYSICS SURVEY SEALED SOURCE LEAK TEST ANALYSIS REPORT

**FACILITY:** Philips Medical Systems                      **DEPARTMENT:** PET Facility  
**LOCATION:** Philadelphia, PA                                      **ATTENTION:** Behrouz Kanvalli, RSO

*Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.001 uCi, unless otherwise noted, when compared against NIST traceable standards.*

**Source:** Ge-68 Rod; 10.0 mCi on 07/11/2001; IPL S/N: ZZ-992; Model Number: HEG-0108

**Date:** 9/4/03  
**Wipe No.:** PM8  
**MDA (uCi):** 1.70E-5  
**Net CPM:** 26  
**Net uCi:** < MDA  
**CPM for  
0.001 uCi:** 297  
**Analyst:** M. Lairmore

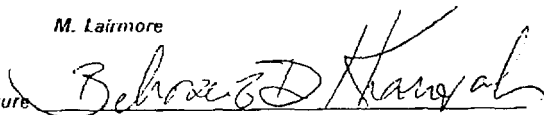
**Source:** Ge-68 Cylinder, 0.75 mCi on 07/10/2001, IPL, S/N: 730-50-01; Model Number: EG-0310

**Date:** 9/4/03  
**Wipe No.:** PM9  
**MDA (uCi):** 1.70E-5  
**Net CPM:** 30  
**Net uCi:** < MDA  
**CPM for  
0.001 uCi:** 297  
**Analyst:** M. Lairmore

**Source:** Ge-68 Rod, 10.0 mCi on 01/27/2000; IPL; S/N: RR-450; Model #: HEG-0108

**Date:** 9/4/03  
**Wipe No.:** PM10  
**MDA (uCi):** 1.70E-5  
**Net CPM:** 42  
**Net uCi:** < MDA  
**CPM for  
0.001 uCi:** 297  
**Analyst:** M. Lairmore

RSO Signature





## MEDICAL PHYSICS SURVEY SEALED SOURCE LEAK TEST ANALYSIS REPORT

**FACILITY:** Philips Medical Systems

**DEPARTMENT:** PET Facility

**LOCATION:** Philadelphia, PA

**ATTENTION:** Behrouz Kanvalli, RSO

*Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.001 uCi, unless otherwise noted, when compared against NIST traceable standards.*

**Source:** Ge-68 Rod; 10.0 mCi on 08/19/1997; IPL S/N: LL-146

**Date:** 9/4/03

**Wipe No.:** PM12

**MDA (uCi):** 1.70E-5

**Net CPM:** 18

**Net uCi:** <MDA

**CPM for  
0.001 uCi:** 297

**Analyst:** M. Lairmore

**Source:** Ge-68 Rod, 5.0 mCi on 03/01/1996, IPL, S/N: FF-942

**Date:** 9/4/03

**Wipe No.:** PM13

**MDA (uCi):** 1.70E-5

**Net CPM:** 21

**Net uCi:** <MDA

**CPM for  
0.001 uCi:** 297

**Analyst:** M. Lairmore

**Source:** Ge-68 Rod, 5.0 mCi on 02/16/1990; IPL; S/N: 30R

**Date:** 9/4/03

**Wipe No.:** PM14

**MDA (uCi):** 1.70E-5

**Net CPM:** 1

**Net uCi:** <MDA

**CPM for  
0.001 uCi:** 297

**Analyst:** M. Lairmore

**RSO Signature**

*Behrouz Kanvalli*

## MEDICAL PHYSICS SURVEY SEALED SOURCE LEAK TEST ANALYSIS REPORT

**FACILITY:** Philips Medical Systems  
**LOCATION:** Philadelphia, PA

**DEPARTMENT:** PET Facility  
**ATTENTION:** Behrouz Kanvalli, RSO

*Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.001 uCi, unless otherwise noted, when compared against NIST traceable standards.*

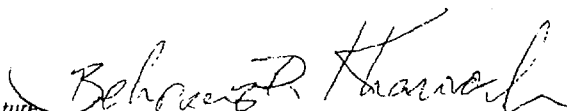
**Source:** Ge-68 Rod; 5.0 mCi on 02/01/1994; IPL S/N: Z379

**Date:** 9/4/03  
**Wipe No.:** PM15  
**MDA (uCi):** 1.70E-5  
**Net CPM:** 9  
**Net uCi:** <MDA  
**CPM for  
0.001 uCi:** 297  
**Analyst:** M. Lairmore

**Source:** Ge-68 Rod, 5.0 mCi on 11/15/1991, IPL, S/N: R-553

**Date:** 9/4/03  
**Wipe No.:** PM16  
**MDA (uCi):** 1.70E-5  
**Net CPM:** 5  
**Net uCi:** <MDA  
**CPM for  
0.001 uCi:** 297  
**Analyst:** M. Lairmore

RSO Signature



EVALUATION OF POSSESSION AND USE OF BYPRODUCT MATERIAL  
(For use with priority 5T licensees only)

Name: ADAC UGM  
Address: 3619 & 3508 Market Street  
Philadelphia, PA 19104

Docket No. 030-33876  
License Number: 37-30228-01  
Phone Number: ( ) 215-222-4999  
FAX Number: ( ) 215-222-5578

1. Name and Title of person responsible for radiation safety program: \_\_\_\_\_

Behrouz Khanvali, Radiation Safety Officer

2. Describe how you safeguard the byproduct material from:

(a) use by unauthorized personnel: Card key access by  
authorized individuals to area of use.

(b) loss or theft: Log-in/out book which is checked, at least,  
once a week by the RSO.

3. Describe controls that prevent individuals who work in the area around the material from becoming exposed to radiation: \_\_\_\_\_

Sources are kept in  
a safe in a hot lab when not in use. When in use,  
area is marked off and a traffic cone with RAM sign  
is placed around area.

4. Do you have a personal monitoring program for your employees, such as film badges, dosimeters, etc.? Yes  No

If yes, what was the maximum dose received since 1996 ? (year of last telephone contact or inspection) 30 mR.

5. Do you perform surveys to detect external radiation in the area around the byproduct material? Yes  No

If yes, how often are the surveys performed? Quarterly

What instrument is used to perform the surveys? Ludlum 3 or 14-C with side window GM  
When was this instrument last calibrated? 6/2003 and 8/2003

6. On what date was the last physical inventory of all byproduct material in your possession performed? 9/14/2003 (Done Quarterly)

Were all sources accounted for? Yes  No  N/A

7. Do you perform leak tests on the sealed source? Yes  No  N/A

If yes, how often are these leak tests performed? Every six months

Who evaluates the leak test results? Michael Cairmore, Assoc. If  
no, describe the provisions you have made to have the leak tests

done: \_\_\_\_\_

8. Describe your provisions for repair and maintenance of your device or source holder: \_\_\_\_\_

Any leaking sealed source would be  
sent back to the manufacturer for disposal

9. Describe any unusual events involving the byproduct material or device(s) in which it is used: \_\_\_\_\_

None

Name of person filling in questionnaire: Steven R. Courtemanch Date: 11/26/2003  
Title: Health Physicist