

# CARDIOVASCULAR CONSULTANTS

Gary A. Frick, D.O., M.S., F.A.C.C., F.A.C.O.I.

1123 North Western Avenue  
Marion, IN 46952

Phone: 765 - 651 - 9347 Fax: 765 - 651 - 9346

## FACSIMILE TRANSMISSION

TO: Bill Reichhold	FROM: Becki Frick
FAX NUMBER: 630-829-9782	DATE: 8/2/3
PHONE NUMBER: 630-829-9839	TOTAL NO. OF PAGES INCLUDING COVER: 4

SUBJECT: Please call & confirm if received & OK.

URGENT

FOR REVIEW

PLEASE REPLY

NOTES/COMMENTS:

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**NC Systems, Inc.**  
**Institute For Nuclear Medical Education, Inc.**  
 6660 Airport Blvd., Suite 101, Boulder, Colorado 80301  
 Phone: (800) 548-4024 • (303) 541-0044 • FAX: (303) 541-0066

Standard  Urgent

Total Pages: 7

Stamp Received in This Area

**FAX**

From: Mark Dater To: Becki Date: 8/2/06

FAX Phone: 765-851-9346 Phone: 765-851-9347 Location: JN

Reference:

Dear Becki:

Have Dr. Frick sign letter. Fax a copy of documents to Bill Reichhold @ 830-829-8782. keep a set for your site records.  
 Please call if you have any questions.

Sincerely,

Mark  
 NC Systems, Inc.

Sender \_\_\_\_\_ 1078 OFFICE - Fax 88

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The following information is needed to complete the review of your amendment request to release "old" facility located at 4506 South Western Avenue Marion, Indiana.

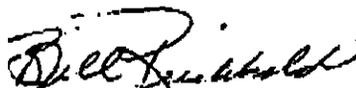
Your close-out survey should consist of exposure rate measurements to show that all sources of radioactive material have been removed, and contamination checks of areas where radioactive materials were used or stored. Average radiation levels associated with surface contamination and removable contaminations should not exceed those specified in the enclosed decontamination guide. Please submit the following information with your close-out survey:

- a. A history of all radionuclides used at your "old" facility.
- b. A current copy of the leak test results for the sealed sources used at your "old" facility. Also a history of leaking sealed sources (if any).
- c. Your wipe tests ( dated Thursday April 27, 2006) for contamination appear to show results for only cobalt-57, cesium-137, and barium-133 rather than wipe tests for all radionuclides (such as technetium-99m, etc.) used at your facility. **Please resubmit** wipe test survey results that include all radionuclides used and stored at your facility. Also, the wipe test results (dated Thursday April 27, 2006) were incomplete. The wipe test results for area 8 were not clear because they were "cut off" from the bottom of the page
- d. Please identify the individual who performed the wipe tests for contamination.
- e. Please identify the instrument(s) used for exposure rate measurements and for analysis of the wipes.
- f. Please specify the background readings for both the wipe tests and the ambient radiation level surveys.
- g. Please specify the date that the survey instrument was last calibrated.

Please send a facsimile of your response to the above in 7 days and refer to control 315421.

Please call me at 630-829-9839 if you have any questions.

*From the desk of:*



*Bill Reichhold*

8/2/06

Nuclear Regulatory Commission  
Region III  
ATTN: Bill Reichhold  
2443 Warrenville, Suite 210  
Lisle, IL 60532-4352  
630-829-9839

RE: Fax sent by Bill Reichhold, dated July 12, 2006, Control number 315421

Dear Bill Reichhold:

In response to the above referenced fax requesting additional information.

- a. The radionuclide's used at the facility for patient doses were 99Tcm; 201Tl. The Sealed sources used at the facility for quality control of equipment were 57Co; 133Ba; 137 Cs.
- b. I have enclosed a copy of the leak test for the sources used at the old facility. There were never any leaking sources.
- c. I have resubmitted wipe results covering all radionuclide's used at the facility.
- d. The identity of the person who performed the 1<sup>st</sup> wipe tests was Thomas Euler. The person performing the wipe test for the 2<sup>nd</sup> set of wipes was Becky Frick
- e. The survey instrument used for the ambient survey was a Bicron Model Surveyor 2000 with a side window probe. The instrument used for contamination wipe survey is a Atomlab 450 counting system with a 2x2 NaI well detector.
- f. Background for the ambient survey was .03mr/hr Background for wipe survey was 1360dpm
- g. The survey instrument date of last calibration was 12/10/05.

Should you have any further questions, please contact me at 765-651-9347  
or Mark Dater (Consultant: NC Systems, Inc) at 800-548-4024.

Sincerely,



Gary A. Frick, D.O.  
Radiation Safety Officer

### Sealed Source Leak Test and Inventory

Licensee: Cardiovascular Consultants  
 Address: 1123 N. Western Ave.  
 City: Merton State: IN Zip: 48982  
 License #: 15-32-301-01 Telephone: 766-874-9347

#### Sample Identification / Analysis

Source	1	2	3	4
Nuclide	Co-57	Co-57	133-Ba	137-Cs
Mfg	IPL	IPL	IPL	IPL
Model	FLOOD	REF	REF	REF
Serial	1155-112	1074-82-3	747-22-18	743-0-45
Assay Date	1 Apr 2006	1 Dec 2004	1 Apr 2001	1 Mar 2001
Activity	10 mCi	8.28 mCi	240 uCi	290 uCi

#### Current

Activity	8.88 mCi	1.34 mCi	172 uCi	221 uCi
Location	H.I.	H.I.	H.I.	H.I.
Use	Camera	D.C.	D.C.	D.C.

#### Wipe

Date	24 Apr 2006	24 Apr 2006	24 Apr 2006	24 Apr 2006
By	R. Frick, RN	R. Frick, RN	R. Frick, RN	R. Frick, RN

#### Assay

Date	1 May 2006	1 May 2006	1 May 2006	1 May 2006
µCi	6.444e-05	-1.191e-05	-0.000113	2.515e-05

#### LLD

µCi	2.32e-05	2.32e-05	3.096e-05	1.714e-05
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#### Analysis

<0.005µCi	X	X	X	X
>0.005µCi				

Next Leak Test Due: (every 6 mo.) 28 Oct 2006 **PASSED** Due: (every 3 mo.) 28 July 2006

#### Comments/Actions:

Assay Performed By: Thomas Euler Date: 1 May 2006

RSO Signature: \_\_\_\_\_ Date: \_\_\_\_\_



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SealedSourceLeakTestInv02

### Sealed Source Leak Test and Inventory

Licensee: Cardiovascular Consultants  
 Address: 1123 N. Western Ave.  
 City: Marion State: IN Zip: 46852  
 License #: 13-32-301-01 Telephone: 765-674-4347

#### Sample Identification / Analysis

Source	1	2	3	4
Nuclide	<u>Co-57</u>			
Mfg	<u>IPL</u>			
Model	<u>FLOOD</u>			
Serial	<u>1033-106</u>			
Assay Date	<u>1 Jan 2004</u>			
Activity	<u>10 mCi</u>			

#### Current

Activity 1.14 mCi  
 Location H.L.  
 Use Camera

#### Wipe

Date 24 Apr 2006  
 By R. Frick, RN

#### Assay

Date 1 May 2006  
 $\mu$ Cl 0

#### LLD

$\mu$ Cl 2.32e-05

#### Analysis

<0.005 $\mu$ Cl \_\_\_\_\_  
 >0.005 $\mu$ Cl \_\_\_\_\_

Next Leak Test Due:(every 6 mo.) \_\_\_\_\_ Next Inventory Due:(every 3 mo.) \_\_\_\_\_

Comments/Actions: This Co-57 Flood replaced with new Flood, serial 1155-112

Assay Performed By: **ASSED** Thomas Euler Date: 1 May 2006

RSO Signature: \_\_\_\_\_ Date: \_\_\_\_\_



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6000 Alpaon Blvd., Suite 101, Boulder, CO 80501 • (303) 448-0234 • (303) 441-0244 • (303) 441-0288 FAX  
[Sales@ncsystems.com](mailto:Sales@ncsystems.com) [www.ncsystems.com](http://www.ncsystems.com)

**Cardiovascular Consultants**  
**1123 North Western Avenue**  
**Marion, IN 48952**  
**765-651-9347**

**Wipe Results Report**

**Tuesday, August 1, 2006 2:13 PM**

**Area: Contamination Survey**

**Unrestricted Area, R50 Trigger at 25% of Federal Guidelines, Well**

**Location: Areas 1-5 Wipes**

>LLD	>Trigger	Isotope	Trigger	LLD	Background	Count Time	Activity
No	No	Wide Window	500 dpm	53 dpm	1380 dpm	60 sec.	27 dpm

**Location: Areas 6-9 Wipes**

>LLD	>Trigger	Isotope	Trigger	LLD	Background	Count Time	Activity
Yes	No	Wide Window	500 dpm	53 dpm	1380 dpm	60 sec.	77 dpm

**Technologist:** \_\_\_\_\_

**Comments:**

**Date of Samples:** 07-27-2006

*WINDOW SET AT 50KEV-726 KEV*

**Wipe #1 - Negative**

**Wipe #2 - Negative**

**Wipe #3 - Negative**

**Wipe #4 - Negative**

**Wipe #5 - Negative**

**Wipe #6 - Negative**

**Wipe #7 - Negative**

**Wipe #8 - Negative**

**Wipe #9 - Negative**

**Signature:**  
5074

*Thomas E. Eason*

**Date:**

08-09-2006

WM 05:00 0007-70-704





NC SYSTEMS, INC.  
NATIONAL LABORATORIES  
5660 AIRPORT BLVD., SUITE 101  
BOULDER, CO 80301  
303-541-0044

# Calibration Certificate

This is to certify that the instrument described below was calibrated by or contracted through our laboratory on:

Instrument Geiger Counter Manufacturer Bicron Model # surveyor 2000  
Serial # I-537A Detector SWGMCBS8H

The instrument was found to be within the manufacturer's specifications or within the tolerances and specifications given below.

Detector(s)	Range(s) Scale(s)	Calibration Point	Reading	Other Specs or % error
Internal	X1000	1.500 mR/h	1.460 mR/h	
Internal	X1000	500 mR/h	530 mR/h	
External	X100	150 mR/h	145 mR/h	
External	X100	50 mR/h	52 mR/h	
External	X10	15 mR/h	14.9 mR/h	
External	X10	5 mR/h	5 mR/h	
External	X1	1.5 mR/h	1.4 mR/h	
External	X1	5 mR/h	0.35 mR/h	
NA	X0.1	268 ppm	0.14 mR/h	
NA	X0.1	106 ppm	0.055 mR/h	

0.9 mR/h

Check Source Reading: \_\_\_\_\_

Instrument was repaired as noted below.

### Comments:

This will further certify that all calibrations were performed using standards traceable to the National Institute for Standards and Technology (NIST). Calibration methods may be obtained by contacting our office.

12/10/05  
Date  
12/10/06  
Recalibration

[Signature]  
By  
Laboratory Manager  
Title

4877-13  
L-10741263

TYPE HERE OVERSTAMPED 1-00