

HENLOPEN CARDIOLOGY, P.A.

HABIB BOLOURCHI, M.D., F.A.C.C.

18958 ~~4500 HIGHWAY ONE~~ Coastal Highway

REHOBOTH BEACH, DELAWARE 19971



DIPLOMATE:  
AMERICAN BOARD OF CARDIOVASCULAR MEDICINE  
AMERICAN BOARD OF INTERNAL MEDICINE

(302) 645-7672  
FAX: (302) 645-7842

Br. 1

Nuclear Regulatory Commission  
Region I  
2100 Renaissance Blvd, Suite 100  
King of Prussia, PA 19406  
RE: License Amendment Request  
License No. NRC-07030687-01  
Docket Number. 030-35855  
Henlopen Cardiology, P.A.

September 3, 2014

Dear License Reviewers:

We are requesting the release of areas previously utilized as radioactive material use or storage at "Henlopen Cardiology", located at 18958 Coastal Highway, Rehoboth, DE 19971 for unrestricted use. In

accordance with the guidelines established by the NRC, dated December, 1975, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use", we herein submit the

final survey of these areas. This survey was performed by Dr. Bryan Yoder of Krueger-Gilbert Health

Physics, Inc. on August 13, 2014 (Refer to enclosures).

The facility conducted their last patient study on June 25, 2014. All radioactive waste has been properly

surveyed and disposed. All sealed sources were transferred to Nanticoke Cardiology (NRC 07-30790-01)

on August 1, 2014.

***Please, terminate this license, nuclear medicine procedures will no longer be performed at this facility.***

**We request that a representative from the NRC perform a final closeout at the earliest possible convenience or that the areas be released based on the enclosed Health Physics survey.**

If there are any questions or if additional information is needed, please contact the undersigned at (302) 645-7672, as the Radiation Safety Officer, or Bryan Yoder, Health Physics Consultant, Krueger-Gilbert Health Physics, Inc. at (410) 692-9806.

Sincerely,

*Habib BoLOURCHI, M.D.*

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584868  
RIRGNI MATERIALS-002

REC'D 10/09/14 4:20:05

*Habib Bolourchi, MD*

Habib Bolourchi, MD  
Radiation Safety Officer

Enclosures:

Facility Diagram: Enclosed

## SURVEY RESULTS

Facility: Henlopen Cardiology P.A.  
Address: 18958 Coastal Highway  
Rehoboth, Delaware 19971  
Survey date: 8/13/2014  
License Number: NRC 07-30687-01

Radiation exposure levels were monitored with a Ludlum model 451P (sn# 3607) ionization chamber last calibrated on July 17, 2013. Areas surveyed and results are indicated on the enclosed diagrams.

Wipe tests were conducted on 100 cm<sup>2</sup> areas using absorbent paper moistened with alcohol.

Wipe testing and results are indicated on the enclosed diagrams.

Instrument: Ludlum Scaler Model 2200/Ludlum NaI Well Model 243

Detector Efficiency: Cs-137 (662 keV) = 12.1%  
Ba-133 (356 keV) = 23.7%  
Co-57 (122 keV) = 62.6%

The minimal detectable activity (MDA) was determined using a wide window Cs-137 efficiency of 32% and background + 3 $\sigma$ .

MDA =  $4.0 \times 10^{-5}$  uCi or 87 dpm

All sample results were less than the minimal detectable activity.

Net Wipe test results were also less than 200 dpm/100 cm<sup>2</sup>.

**SURVEY RESULTS**  
**Stress Room**

Survey Date: August 13, 2014  
License Number: NRC 07-30687-01  
Instrument: Biodex 14C  
Calibration Date: September 11, 2013  
Background: 2  $\mu$ R/hr

<u>Sample</u>	<u>Survey Meter</u>
<u>Location</u>	<u>Reading</u>
1 - 6	2 $\mu$ R/hr

**WIPE TEST RESULTS**  
**Stress Room**

Survey Date: August 13, 2014  
Instrument: Ludlum Scaler Model 2200/Ludlum NaI Well Model 243  
Detector Efficiency: Cs-137 (662 keV) = 12.1%  
Ba-133 (356 keV) = 23.7%  
Co-57 (122 keV) = 62.6%

<u>Sample</u>	<u>Results</u>
<u>Location</u>	<u>(Net DPM)</u>
1 - 6	<MDA

**Hot Lab/Camera Room**

Survey Date: August 13, 2014  
License Number: NRC 07-30687-01  
Instrument: Biodex Model 14C  
Calibration Date: September 11, 2013  
Background: 5  $\mu$ R/hr

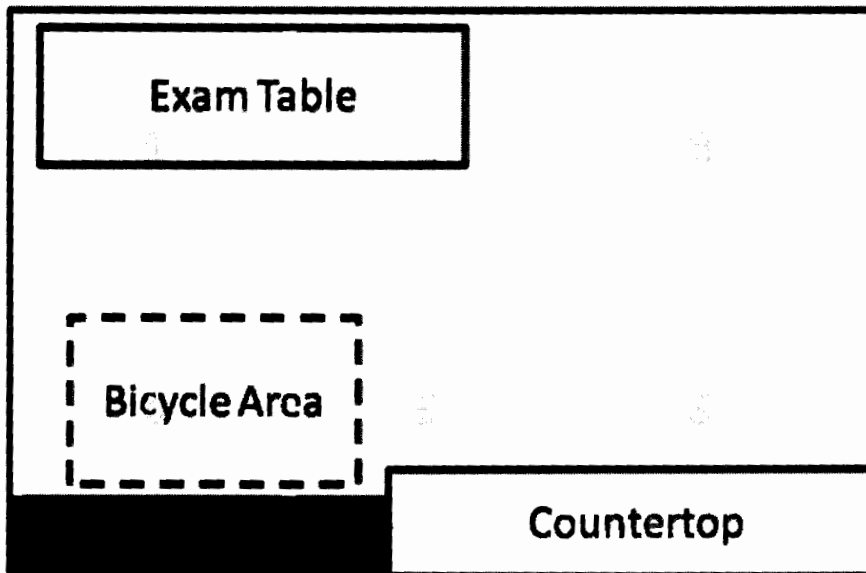
<u>Sample Location</u>	<u>Survey Meter Reading</u>
1 - 15	5 $\mu$ R/hr

**WIPE TEST RESULTS  
Hot Lab/Camera Room**

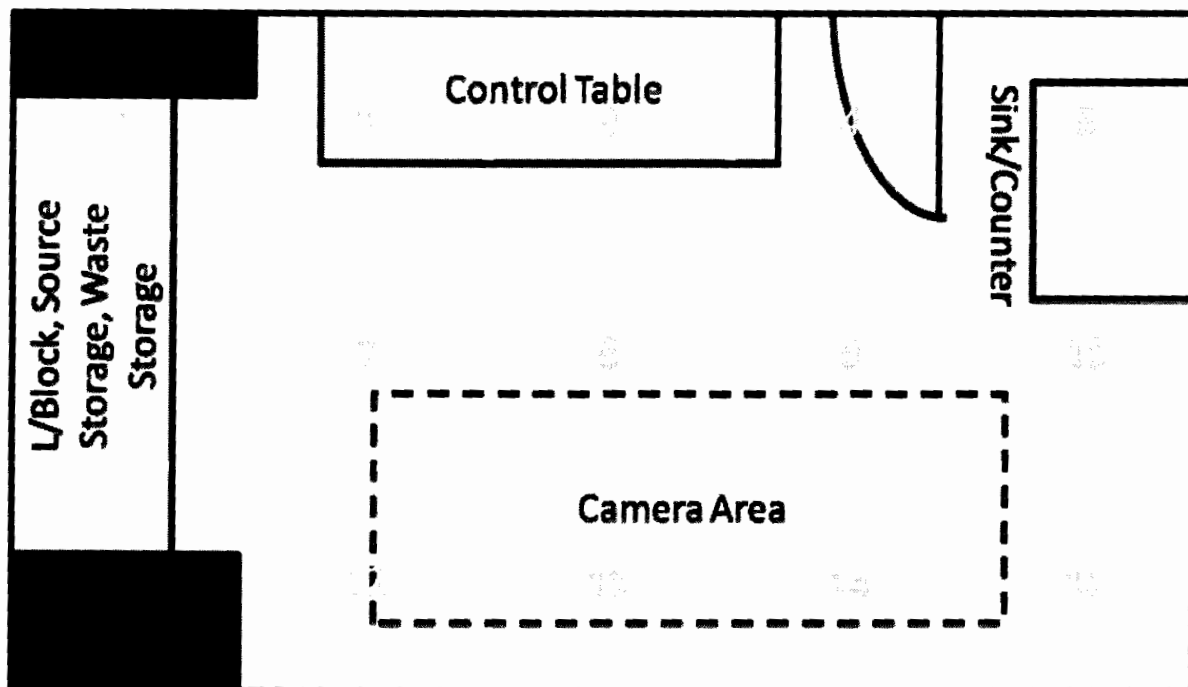
Survey Date: August 13, 2014  
Instrument: Ludlum Scaler Model 2200/Ludlum NaI Well Model 243  
Detector Efficiency: Cs-137 (662 keV) = 12.1%  
Ba-133 (356 keV) = 23.7%  
Co-57 (122 keV) = 62.6%

<u>Sample Location</u>	<u>Results (Net DPM)</u>
1 - 15	< MDA

## Stress Room Diagram with Wipe/Survey Test Regions



# Hot Lab Diagram with Wipe/Survey Test Regions



This is to acknowledge the receipt of your letter application dated

09/03/2014, and to inform you that the initial processing which includes an administrative review has been performed.

07-30687-01 (Termination)  
 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

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A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 584868.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)  
(6-96)

Sincerely,  
Licensing Assistance Team Leader