



**Lutheran  
Health Physicians**  
**Lutheran Medical Group**

August 27, 2020

U. S. Nuclear Regulatory Commission  
Materials Licensing Section  
2443 Warrenville Road, Suite 210  
Lisle, IL 60532-4352

Dear Sir or Madam:

Lutheran Medical Group, LLC d/b/a Lutheran Health Physicians would like to terminate its Byproduct Materials License, Number 13-32301-01. Licensed materials use ceased as of January 1, 2020. Supporting documentation for this request is enclosed.

If there are any questions concerning this license amendment, please contact our nuclear medicine physicist, Mr. Bryce A. Caudle, DABSNM at 317-443-9035 or by email at [bcaudle@mpcphysics.com](mailto:bcaudle@mpcphysics.com).

Sincerely,

Nicole Rexroth  
Chief Operating Officer

Close-out survey of Nuclear Cardiology Department, Lutheran Medical Group, LLC,  
d/b/a Lutheran Health Physicians.  
1123 North Western Ave., Marion, IN 46592

Performed by: Bryce A. Caudle, M.S., DABSNM  
Medical Physics Consultants, Inc.

Radioactive materials usage at this location of use was limited to materials licensed under 10 CFR 35.200. Sealed radioactive sources were possessed and used for equipment quality control.

Wipe tests for removable radioactive contamination were taken on 8/12/20 and analyzed in a Ludlum Model 243 (S/N: 145366) Shielded Well Scintillator coupled to a Ludlum Model 2200 (S/N: 138705) Scaler Ratemeter. A window of 50 to 400 keV was used to analyze the wipes. The efficiency of this system for cobalt-57 is 1.09 dpm/cpm. The results of the wipe samples are enclosed.

The radiation levels survey was performed on 8/12/20 by Bryce Caudle, using a Ludlum Model 14C Geiger-Muller survey meter (S/N: 193960) with an end-window probe. The meter was calibrated on 7/23/20. The range used for the radiation level survey was 0.0 to 0.2 mR/hr.

Visual Inspection

The area was visually inspected to ensure that all radioactive waste had been removed. No radioactive material was located in the area. All radioactive material signage has been removed from the area.

Radiation Level Survey

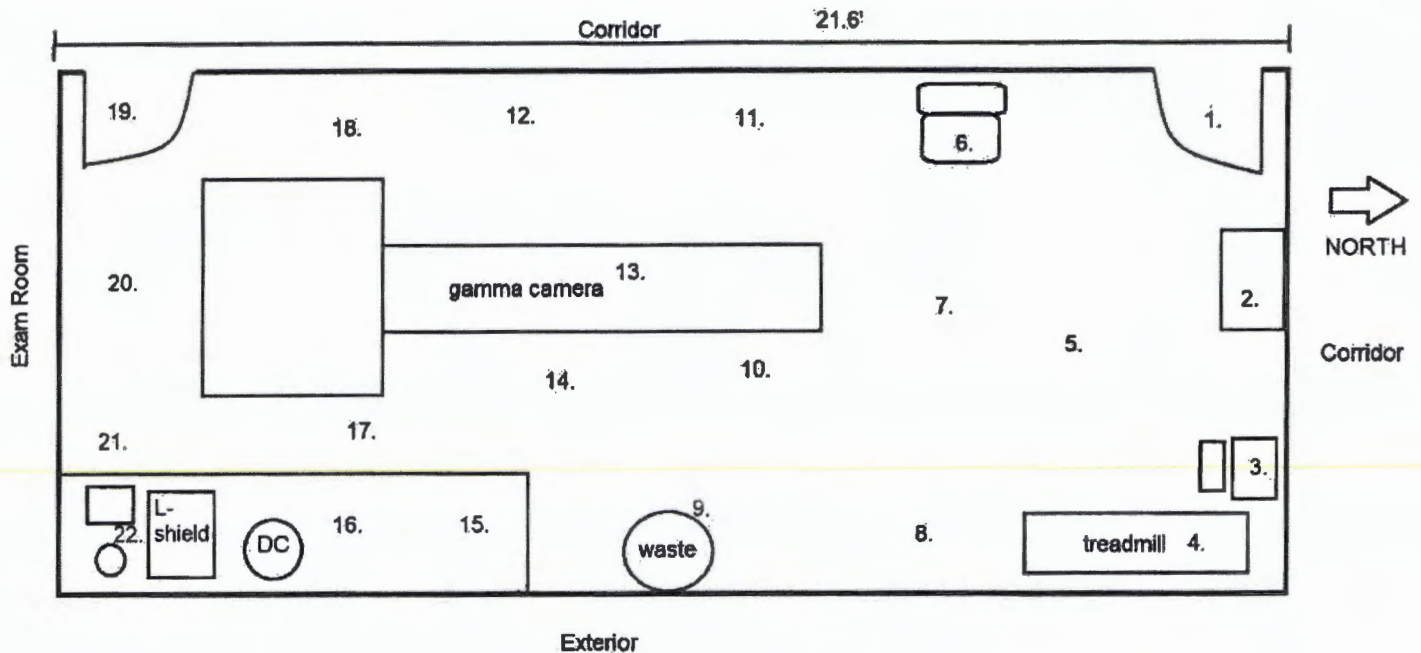
No area demonstrated radiation levels in excess of the background reading of 0.02 mR/hr.

Sealed Sources

All sources have been transferred to an approved disposal company. Acknowledgement of receipt of all sealed sources by the disposal company is enclosed.

Radioactive Waste Materials

All waste containers were found to be empty. All waste materials were disposed of by decay-in-storage. The facility only utilized unit doses and has not received any materials since 1/1/2020.



**Nuclear Cardiology Department – Lutheran Medical Group, LLC d/b/a Lutheran Health Physicians**

**1123 North Western Ave., Marion, IN 46592**

All 35.200 materials (including waste materials) were used and stored exclusively in the above space. Sealed sources were used and stored exclusively in the same area. There are no longer any radioactive materials present in the facility.



### Removable Contamination Survey Results

Wipe samples were counted in a Ludlum Model 243 Shielded Well Scintillator (S/N: 145366) coupled to a Ludlum Model 2200 Scaler Ratemeter (S/N: 138705). The efficiency of this system for cobalt-57 is 1.09 dpm/cpm.

Background: 332 counts per minute

Wipe Number	Gross counts per minute	Net counts per minute	Disintegrations per minute
1	347	15	16.35
2	287	0	0
3	323	0	0
4	325	0	0
5	343	11	11.99
6	319	0	0
7	339	7	7.63
8	362	30	32.70
9	352	20	21.80
10	359	27	29.43
11	325	0	0
12	335	3	3.27
13	301	0	0
14	339	7	7.63
15	349	17	18.53
16	371	39	42.51
17	355	23	25.07
18	308	0	0
19	320	0	0
20	336	4	4.36
21	313	0	0
22	330	0	0

\*Please refer to the attached survey map for wipe locations.

Maximum removable contamination occurred in area 14. Gross count rate = 371 cpm/100cm<sup>2</sup>.  
Net count rate (gross minus background) = 371 – 332 = 39 cpm/100cm<sup>2</sup>. Net removable disintegrations per minute = 39 cpm/100cm<sup>2</sup> x 1.09 dpm/cpm = 42.51 dpm/100cm<sup>2</sup>.

#### Conclusion

All radioactive materials have been removed from the area of use and no removable contamination is present.

Lutheran Medical Group, LLC, d/b/a Lutheran Health Physicians

Sealed Source Inventory and Leak Test Results

Leak test performed 8/12/2020

Source Type	Calibrated Activity	Calibration Date	Serial Number	Leak Test <5nCi?
Co-57 Flood Source	10 mCi	7/1/2018	2011-014	Yes
Co-57 Vial Source	5.67 mCi	12/1/2012	1639-5-8	Yes
Ba-133 Vial Source	240.1 uCi	4/1/2001	747-22-16	Yes
Cs-137 Rod Source	0.069 uCi	11/1/2000	None listed	Yes
Cs-137 Vial Source	~250 uCi	4/1/2001	Unreadable	Yes

The above sources were leak tested using a dry wipe technique and were found to have less than 5 nCi removable activity. The leak test wipes were analyzed using instrumentation capable of detecting 185 Bq (0.005 uCi) of radioactivity on the wipe.

**Receiving**

Eckert & Ziegler Isotope Products Ltd.  
1800 N Keystone St.  
Burbank, CA 91504  
United States

**Telephone**

+1-661-309-1010

**Fax**

+1-661-257-8303

**Return Acknowledgement****Shipped From:**

Lutheran Health Physicians

Bryce Caudle, 317-443-9035

bcaudle@mpcphysics.com

1123 N. Western Ave.

Marion, IN 46952

United States

Return Number

CO-422686

RMA number

RA-006992

Date

8/26/2020

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Customer account

CARDINAL

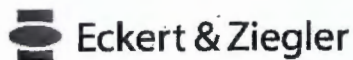
Customer reference

Customer requisition

Dear Valued Customer,

Eckert & Ziegler Isotope Products Laboratories has received your radioactive source(s) and takes responsibility for tracking and storage of the source(s) listed below. If you have any further questions about the source(s), please contact EZIP and reference the return number listed above. Thank you for your business.

Item number	Batch number	Serial number	Quantity returned	Received on	Description
A3535-2-10M		2011-014	1.00	8/14/2020	COMPONENT: Round Flood Source MED3706
Nuclide Info: Co-57		10 mCi	Ref. Date: 7/1/2018		

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Bryce Caudle, 317-443-9035  
bcaudle@mpcphysics.com  
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Marion, IN 46952  
United States

**Return Acknowledgement**

Return Number

CO-422686

RMA number

RA-006994

Date

8/26/2020

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1 of 1

Customer account

CARDINAL

Customer reference

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Item number	Batch number	Serial number	Quantity returned	Received on	Description
RV-057-5M		1639-5-8	1.00	8/14/2020	CE MARK 1:Co-57, 185MBq,(5mCi), Dose Calibrator Std, NIST.
	Nuclide Info: Co-57	5.67 mCi			Ref. Date: 12/1/2012
EXCHANGE	Unk (14aug20)		1.00	8/14/2020	Misc item for recycle/disposal Vial Source
	Nuclide Info: Cs-137	250 uCi			Ref. Date: 4/1/2001
RV-133-250U		747-22-16	1.00	8/14/2020	CE MARK 1:Ba-133, 250uCi (9.25MBq),Dose Calibrator,NIST
	Nuclide Info: Ba-133	240.1 uCi			Ref. Date: 4/1/2001
EXCHANGE	Unknown (14aug20)		1.00	8/14/2020	Misc item for recycle/disposal Rod Source
	Nuclide Info: Cs-137	69 nCi			Ref. Date: 11/1/2000



**Lutheran  
Health Physicians**

7910 W. JEFFERSON BLVD., SUITE 120 | FORT WAYNE, IN 46804

RETURN SERVICE REQUESTED

neopost<sup>®</sup>  
09/17/2020

FIRST-CLASS MAIL  
AUTO

US POSTAGE \$000.38<sup>9</sup>



ZIP 46802  
041M12251013

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