

1521 Gull Road
Kalamazoo, MI 49048
(269) 226.7000

BORGESS

Medical Center

9 July 2012

UNITED STATES NUCLEAR REGULATORY COMMISSION
Region III, Office of Materials Licensing
Attention: Colleen Casey
2443 Warrenville Road
Suite 210
Lisle, IL 60532-4352

RE: Change in License Renewal
License number 21-12275-02
Borgess Medical Center

NRC Control numbers:
576074, LMH termination
576077, HCE termination
576076, BMC amendment
575210, BMC renewal

Dear Colleen:

The following are answers to questions in your e-mail of 16 April 2012 that required further attention as requested in our phone conversation on 9 May 2012. These answers are number according to questions in your e-mail.

1. No additional answer needed.
2. No additional answer needed.
3. Information required to delete human research from our license is attached to this letter as Appendix for question 3. Our radiation safety committee meeting minutes and research study data were reviewed to answer these questions. Not all questions could be answered but all available data were included. The preparation area for radioactive materials for human research was the same as for animal research. This was Cardiology Hot Lab-5W. Close-out survey documents (Appendix A-B-C) were previously submitted to the NRC on 7-20-2009 when asked for information pertaining to animal research.

RECEIVED JUL 18 2012

 ASCENSION
HEALTH

4. No additional answer needed.
5. No additional answer needed.
6. No additional answer needed.
7. No additional answer needed.
8. No additional answer needed.
9. No additional answer needed.

Since we are no longer doing in vitro clinical or laboratory testing, the use of materials in 10 CFR 31.11 can be deleted from the license.

10. No additional answer needed.
11. No additional answer needed.
12. No additional answer needed.
13. No additional answer needed.
14. No additional answer needed.

Since our last correspondence the Authorized Users List for the Borgess broad-scope license has been amended. This Authorized Users List is attached.

We would like to schedule a conference call with you the week of 7-16-12. I will have my Administrative Secretary call to schedule this. If you have any questions or require additional information, please contact me.

Sincerely,



Tom Mushett
Director of Radiology



Dr. Jursinic
Radiation Safety Officer

Appendix for question 3

Borgess Medical Center Human Research										
A	B	C	D	E	F	G	H	I	J	K
Title of the Human Research Project	Where used	Start date at Borgess	End date at Borgess	Radioactive Isotope used	Activity of Isotope	Physical form of Isotope	Manufacturer of Isotope delivery device	Type of delivery device used	Final deposition of Isotope	Copies of decommissioning surveys for work spaces used in this research
Beta-cath System trial	Borgess Cardiology Hot Lab-5W	11/16/1999	7/9/2003	Sr-90, Y-90	Sr-90 555 MBq, Y-90 555 MBq	Fired in a ceramic bead	Novoste Corp 4350-C International Blvd Norcross, GA 30093	Beads going into a catheter	Returned to manufacturer	The survey is attached
Gamma V, Protocol #P00-5501	Borgess Cardiology Hot Lab-5W	4/21/2000	2/21/2006	Ir-192	unknown	Seeds on a wire	Cordis Corp 14201 N.W. 60th Ave P.O. Box 025700 Miami, FL 33102	Wire	Returned to manufacturer	The survey is attached
BRITE II	Borgess Cardiology Hot Lab-5W	4/25/2001	5/20/2003	Sr-90, Y-90	Sr-90 555 MBq, Y-90 555 MBq	Fired in a ceramic bead	Novoste Corp 4350-C International Blvd Norcross, GA 30093	Beads going into a catheter	Returned to manufacturer	The survey is attached
Start 40/20	Borgess Cardiology Hot Lab-5W	6/22/1999	2/22/2005	Sr-90, Y-90	Sr-90 555 MBq, Y-90 555 MBq	Fired in a ceramic bead	Novoste Corp 4350-C International Blvd Norcross, GA 30093	Beads	Returned to manufacturer	The survey is attached

7-9-12: APPENDIX A

Page 3
Borgess Medical Center
July 20, 2009

Attachment 2

Close-out Survey

Previous Cardiology Hot Lab-5W
Borgess Medical Center
1521 Gull Road
Kalamazoo, Michigan 49048

Date Performed: May 22, 2009
Performed by: Angela Burandt, BS, CNMT, RT(N)

Visual Check

The area was checked to ensure that all radioactive materials had been removed.

Radiation Level Survey

Surveys were performed using a Ludlum 14C survey meter.

Calibration: August 11, 2008

Range used was 0-0.02 mR/hr.

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

Removable Contamination

Wipe tests were analyzed with a Capintec Well Counter.

Calibration: May 6, 2009

Minimum detectable activity = 36 dpm

1 minute counts

Background 0 dpm

Wipe test results for all areas show a maximum removable contamination of 98 dpm.

See attached results and diagrams.

Conclusion

No removable contamination is present.

7-9-12: APPENDIX B

Page 4
Borgess Medical Center
July 20, 2009

Close-out Survey

Previous Animal Research Lab C
Borgess Medical Center
1521 Gull Road
Kalamazoo, Michigan 49048

Date Performed: May 22, 2009 and July 9, 2009
Performed by: Angela Burandt, BS, CNMT, RT(N)

Visual Check

The area was checked to ensure that all radioactive materials had been removed.

Radiation Level Survey

Surveys were performed using a Ludlum 14C survey meter.

Calibration Date: August 11, 2008

Range used was 0-0.02 mR/hr.

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

Removable Contamination

Wipe tests were analyzed with a Capintec Well Counter.

Calibration Date: May 6, 2009

Minimum detectable activity = 36 dpm

1 minute counts

Background 0 dpm

Wipe test results for all areas show a maximum removable contamination of 162 dpm.

See attached results and diagrams.

Conclusion

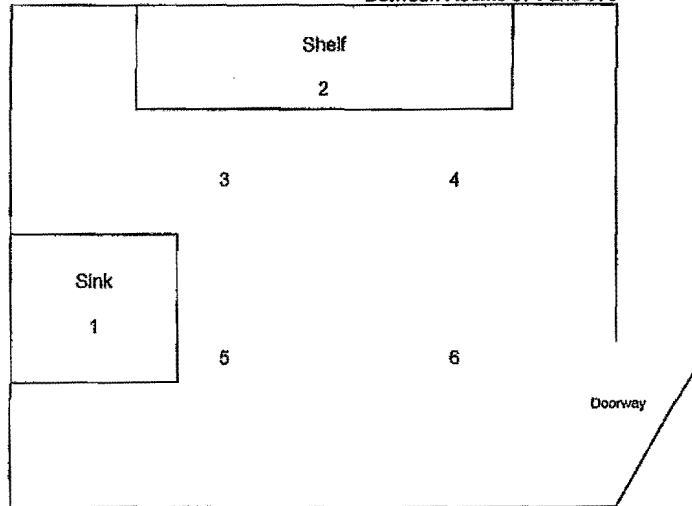
No removable contamination is present.

7-9-12: APPENDIX C

July 20, 2009

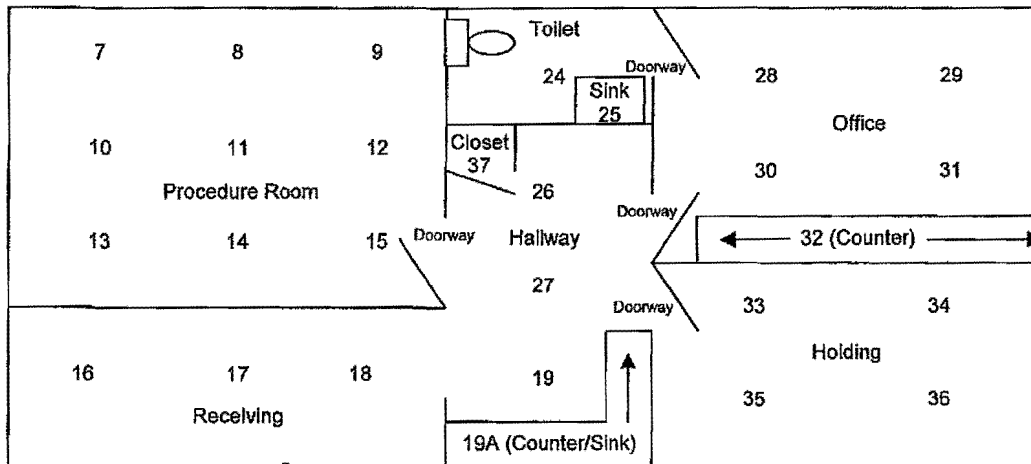
Close-out Survey
 Borgess Medical Center
 1521 Gull Road
 Kalamazoo, Michigan 49048

Cardiology Hot Lab
 Fifth Floor West
 Between Rooms 574 and 575



Area	Result
1.....	40 dpm
2.....	54 dpm
3.....	40 dpm
4.....	98 dpm
5.....	16 dpm
6.....	50 dpm

Animal Research Lab
 Level C



Area	Result
7	74 dpm
8	34 dpm
9	52 dpm
10	24 dpm
11	72 dpm
12	2 dpm
13	88 dpm
14	18 dpm
15	68 dpm
16	46 dpm
17	50 dpm
18	20 dpm
19	118 dpm
19A	154 dpm
20	96 dpm
21	162 dpm

Area	Result
22.....	84 dpm (floor and shelves)
23.....	70 dpm
24.....	116 dpm
25.....	44 dpm
26.....	60 dpm
27.....	92 dpm
28.....	42 dpm
29.....	30 dpm
30.....	28 dpm
31.....	26 dpm
32.....	56 dpm
33.....	66 dpm
34.....	78 dpm
35.....	138 dpm
36.....	66 dpm
37.....	26 dpm

Borgess license current authorized users list:

Please note that all authorized users have been approved by the Radiation Safety Committee under our current broad scope license.

<i>Authorized Users</i>	<i>Materials</i>
Daniel Bozarth, M.D.	10 CFR 35.100, 35.200 and 35.300
Stephen Brown, M.D.	10 CFR 35.100, 35.200 and 35.300
Stanley E. Caines, M.D.	10 CFR 35.100 and 35.200 (limited to cardiovascular clinical procedures)
William B. Campbell, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Marcio Curvelo, M.D.	10 CFR 35.100 and 35.200
Philip Dawson, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Umakant S. Doctor, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Brett Eliuk, M.D.	10 CFR 35.100 and 35.200
Janos Gellert, M.D.	10 CFR 35.100 and 35.200 (limited to cardiovascular clinical procedures)
Linda Grossheim, M.D.	10 CFR 35.300 (limited to Sr-89 and Sm-153, excludes I-131), and 35.400
John Gustafson, M.D.	10 CFR 35.100 and 35.200
Marshall Hay, M.D.	10 CFR 35.100, 35.200 and 35.300
Thomas A. Keller, M.D.	10 CFR 35.100 and 35.200
Anthony King, M.D.	10 CFR 35.100 and 35.200 (limited to cardiovascular clinical procedures)
Robert J. LaPenna, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)

William LaPenna, M.D.	10 CFR 35.100 and 35.200
Soundos Moualla, M.D.	10 CFR 35.100 and 35.200
Tammam Nehme, M.D.	10 CFR 35.100 and 35.200
Michael Pack, M.D.	10 CFR 35.100 and 35.200 (limited to cardiovascular clinical procedures)
Michael S. Pawlik, D.O.	10 CFR 35.100 and 35.200
Stephen L. Peck, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Benjamin A. Perry, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Ramon Raneses, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Joel H. Reinoehl, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Christopher Rogers, D.O.	10 CFR 35.100 and 35.200
John F. Schonder, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Mark Shaman, M.D.	10 CFR 35.100, 35.200 and 35.300 (limited to NaI-131 for less than or equal to 33 mCi)
Gregorio U. Tan, M.D.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Brandon Tominna, M.D.	10 CFR 35.200 and 35.300
Terrence Wilkin, M.D.	10 CFR 35.100 and 35.200
Alicia Williams, D.O.	10 CFR 35.200 (limited to cardiovascular clinical procedures)
Robert A. Williams, D.O.	10 CFR 35.100 and 35.200

Douglas J. Wunderly, M.D.

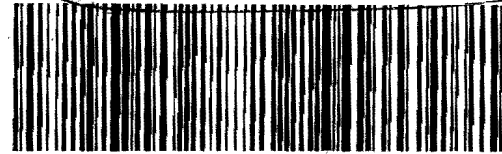
10 CFR 35.200 (limited to cardiovascular
clinical procedures)

FedEx

TRK# 8992 5749 7429
0215

WED - 18 JUL A1
PRIORITY OVERNIGHT

XH ENLA RECEIVED JUL 18 2012 60532 IL-US ORD



Emp# 722338 17JUL12 AZDA 515C1/E852/AA44

RT 373 1 D
FZ 375 7429 07.18

FedEx

For FedEx Express® Shipments Only

902301

00600

FedEx NEW Package
Express US Airbill

FedEx Tracking Number 8992 5749 7429

Recipient's Copy

Insert
airbill
here

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From
Date 7-17-12 FedEx Tracking Number 899257497429

Sender's Name TOM MUSIETT Phone 269 226-4840

Company HLSOB/BORGESS MEDICAL CENTER

Address 1521 GULL RD RECEIVED JUL 18 2012
City KALAMAZOO State MI ZIP 49048-1640

2 Your Internal Billing Reference 02 RECEIVED JUL 18 2012

3 To
Recipient's Name COLLEEN CASEY Phone
Company US NRC

Address 2443 Warrenville Rd Ste 210
City Lisle State IL ZIP 60532-4352

HOLD Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.

HOLD Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Use this line for the HOLD location address or for continuation of your shipping address.

4 Express Package Service *To most locations.
NOTE: Service order has changed. Please select carefully. Packages up to 150 lbs.
For packages over 150 lbs., see the new
FedEx Express Freight GS Airbill.

Next Business Day

FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

NEW FedEx 2Day AM
Second business morning.* Saturday Delivery NOT available.

FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options

SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day AM, or FedEx Express Saver.

No Signature Required
Package may be held without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?
One box must be checked.

No Yes
As per attached Shipper's Declaration.

Yes
Shipper's Declaration not required.

Dry Ice
Dry Ice, 2, UN 1845 _____ kg

Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below. Obtain rec'd. Acct. No.

Sender Acct. No. in Section Recipient Third Party Credit Card Cash/Check

Total Packages Total Weight Credit Card Acct. No.

0444729099



8992 5749 7429

Rev. Date 11/10 • Part #16134 • ©1994-2010 FedEx • PRINTED IN U.S.A. SSS

fedex.com 1.800.GoFedEx 1.800.463.3339

611