

July 26, 2018

Magdalena R. Gryglak
U.S. NRC Region III
2443 Warrenville Rd.
Suite 210
Lisle, IL 60532-4352

Re: U.S. NRC Radioactive Materials License number 24-32517-01

Dear Ms. Gryglak:

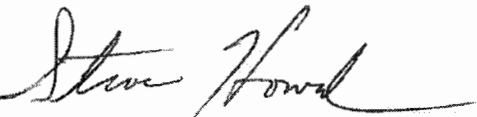
This letter is in response to your request for additional information to process our amendment request to remove the location at 1000 East 101st Terrace from our license.

Please find attached the following documentation:

- Final closeout survey of areas where radioactive materials were used/stored
- List of sealed sources kept at the location with most recent leak test results
- Acknowledgement documentation for each of these sealed sources from the authorized recipients

If there is any additional information you need, please let me know. Thank you for your assistance in this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Steve Howard", written in black ink.

Stephen Howard, M.S.
Medical Physicist, RSO
Kansas City Cancer Centers
University of Kansas Cancer Center
Kansas City, MO 64131
Tel: 913-574-2727
Cell: 913-967-9056
Email: showard2@kumc.edu

Ludlum 9DP 25014264 cal due 12/14/2018

Background: 11 uR/hr

Ludlum 14C 326605 cal due 3/2/2019

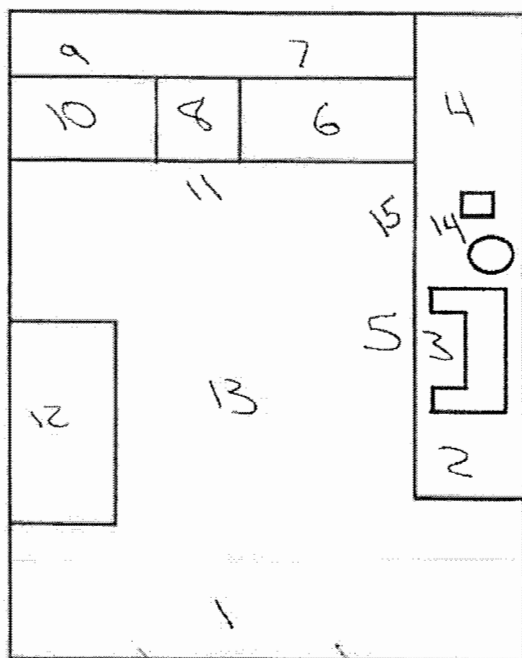
Background: 43 cpm

Ludlum 44-9 pgm PR364310

Wipes: 100 cm²

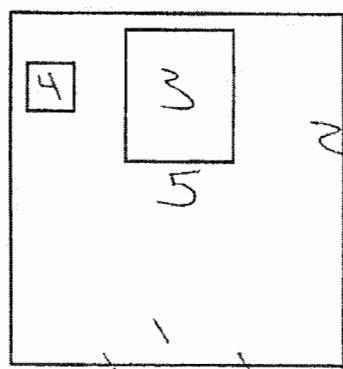
Wipes were counted with the 14C/44-9. Exposure rates and counts are NET readings (minus background.)

HOTLAB 5/21/2018



	<u>uR/hr</u>	<u>CPM</u>		<u>uR/hr</u>	<u>CPM</u>
1. floor	4	14	12. table	3	30
2. counter	1	10	13. floor	1	21
3. L-Block	4	22	14. Dose cal	2	-
4. counter	2	18	15. Decay in Storage	4	14
5. floor	6	11			
6. counter	2	7			
7. cabinet	3	19			
8. sink	2	29			
9. cabinet	4	16			
10. counter	7	20			
11. floor	4	-4			

INJECTION AREA 5/21/2018



	<u>uR/hr</u>	<u>CPM</u>
1. floor	4	34
2. sharps	5	18
3. chair	2	0
4. trash	1	23
5. floor	2	6

JASON BARNEY, RRPT

Health Physicist, KU Health System

Licensee: University of Kansas Cancer Center - South
 Address: 1000 E. 101st Terrace
 Kansas City, MO 64131

License Number: 24-32517-01
 Expiration: 12/31/24

SEALED SOURCE LEAK TEST CERTIFICATE

01/09/18

LEAK TEST REQUIRED 35.67(f)	Source	Serial Number	Manufacturer	Model	Wipe Count (5 min)	Bkg Count (5 min)	Wipe Activity (uCi)	Acceptable 35.67(e)
X	Cs-137	1074-29-10	IPL		970	995	NDA	YES
X	Co-57	3M06057E15320101	Bench/Mark	BM06E-57	960	995	NDA	YES
	Cs-137	BM0813708295104	RadQual	BM0A-37				
X	Co-57	3M01L21016159104	RadQual	BM01L10	975	995	NDA	YES
	Co-57	BM03057L16083204	RadQual	BM03057L				

Leak Test Performed By:	Jiping Zhan	Background Count:	995
Leak Test Performed On:	01/09/18	Delta1 (net counts):	73
Leak Test Samples Counted By:	Jiping Zhan	Delta2 (net counts):	149
Leak Test Samples Counted On:	01/10/18	Decision Limit (Lc):	1144

Method:

Each leak test sample was collected by wiping an alcohol pad over the exposed surface of the source.

No Detectable Activity (NDA):

Wipe count equal to or less than the Decision Limit $[Bkg + 4.66 \cdot \sqrt{Bkg}]$

Instrument: Capintec, Caprac-I S/N 10067

Standard Source Information				Count Data				
Source	Serial No.	Activity (uCi)	Calibration Date	Date	Source (5 min)	Bkg (5 min)	Efficiency (c/d)	MDA (uCi)
Ba-133	1036-32-2	0.1056	02/01/04	12/18/17	441815	900	0.940	1.5E-05
Co-57	1848-51-4	0.1082	10/01/16	12/18/17	361055	900	0.928	1.5E-05
Co-60	NEN02118	0.121	02/26/80	12/18/17	4495	900	0.388	3.6E-05
Cs-137	962-51-9	0.09755	03/01/04	12/18/17	235300	900	0.298	4.6E-05

Test Date: 01/09/18	Regulation: 10 CFR 35.67(b)
Results: PASS	Frequency: Semi-Annual
Next Test Due: 07/10/18	Recordkeeping: 3 years

Jiping Zhan, PhD, DABR, NMP

Stephen Howard, MS

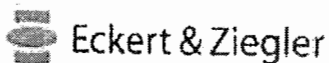
RSO

01/15/18

Date

1-19-2018

Date



Receiving
1800 Facility
1800 N. Keystone St.
Burbank, CA 91504
US

Telephone.....: (661) 309-1010
Fax.....: (661) 257-8303
Giro.....
Tax exempt number..... SRAC11-638175
Recipient.....

Shipped From:
University of Kansas Hospital
Kay Dreiling
913-588-6839
Kdreiling@kumc.edu
3901 Rainbow Blvd.
Kansas City, KS 66160
United States

Return acknowledgement

Return Number.....: 320895
RMA number.....: RMA_033622
Date.....: 5/24/2018
Page.....: 1 of 1
Customer account.....: SIRCOM01
Customer reference.....
Contact.....
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
EXCHANGE	BM01L1016159104		1.000000	5/21/2018	Flood (RadQual) track# 8117 3181 4392
Nuclide Info: Co-57 10.000000 mCi Ref. Date: 7/7/2016					
EXCHANGE	BM0813709295104		1.000000	5/21/2018	Rod (RadQual) track# 8117 3181 4392
Nuclide Info: Cs-137 119.000000 nCi Ref. Date: 10/27/2009					



Eckert & Ziegler

Receiving
1800 Facility
1800 N. Keystone St.
Burbank, CA 91504
US

Telephone.....: (661) 309-1010
Fax.....: (661) 257-8303
Giro.....
Tax exempt number.....: SRAC11-638175
Recipient.....:

Shipped From:
University of Kansas Hospital
Kay Dreiling
913-588-6839
Kdreiling@kumc.edu
3901 Rainbow Blvd.
Kansas City, KS 66160
United States

Return acknowledgement

Return Number:: 320895
RMA number.....: RMA_033621
Date.....: 5/24/2018
Page.....: 1 of 1
Customer account.....: SIRCOM01
Customer reference.....
Contact.....
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
EXCHANGE	BM06057E15320105		1.000000	5/21/2018	Vial (Radqual) trck# 8117 3181 4407
Nuclide Info: Co-57 5.240000 mCi Ref. Date: 11/18/2015					
SRV-137-200U		1074-29-10	1.000000	5/21/2018	Vial trck# 8117 3181 4407
Nuclide Info: Cs-137 181.600000 uCi Ref. Date: 10/1/2004					
EXCHANGE	BM03057L16083204		1.000000	5/21/2018	Spot Marker (Radqual) trck# 8117 3181 4407
Nuclide Info: Co-57 50.000000 uCi Ref. Date: 3/25/2016					

Song, Taehoon

From: Gryglak, Magdalena
Sent: Thursday, July 26, 2018 9:49 AM
To: Song, Taehoon; Sandrik, Lauren; Pavon, Sandy
Cc: Tomczak, Tammy
Subject: FW: RE: RE: [External] Request to remove a location of use, NRC license no. 24-32517-01, University of Kansas Cancer Center
Attachments: South Closeout Documents.pdf

Please place in adams
CN 609046
University of Kansas Cancer Center
24-32517-01
030-36583

Thank you
MG

From: Steve Howard [mailto:showard2@kumc.edu]
Sent: Thursday, July 26, 2018 8:15 AM
To: Gryglak, Magdalena <Magdalena.Gryglak@nrc.gov>
Subject: [External_Sender] RE: RE: [External] Request to remove a location of use, NRC license no. 24-32517-01, University of Kansas Cancer Center

Hi Magdalena

Attached is the letter and additional documentation you requested. Let me know if you need anything else!

Sincerely,

Steve Howard

From: Gryglak, Magdalena [mailto:Magdalena.Gryglak@nrc.gov]
Sent: Friday, July 20, 2018 3:28 PM
To: Steve Howard
Subject: RE: RE: [External] Request to remove a location of use, NRC license no. 24-32517-01, University of Kansas Cancer Center

Thank you!

From: Steve Howard [mailto:showard2@kumc.edu]
Sent: Friday, July 20, 2018 3:23 PM
To: Gryglak, Magdalena <Magdalena.Gryglak@nrc.gov>
Subject: [External_Sender] RE: [External] Request to remove a location of use, NRC license no. 24-32517-01, University of Kansas Cancer Center

Hi Magdalena

Sorry it's taking me a little longer to gather all the information than I thought. I should have it for you by next week if that is okay with you.

Sincerely,

Steve Howard

From: Gryglak, Magdalena [<mailto:Magdalena.Gryglak@nrc.gov>]

Sent: Friday, June 22, 2018 1:15 PM

To: Steve Howard

Subject: [External] Request to remove a location of use, NRC license no. 24-32517-01, University of Kansas Cancer Center

Good afternoon Mr. Howard,

I reviewed your request dated May 24, 2018 to remove a location of use, license no. 24-32517-01, University of Kansas Cancer Center. I am following up with an email after I left a voice message regarding some additional information needed to release the location of use for unrestricted use. Please provide the following information:

- 1) Final status surveys for all areas where materials were used or stored at the location:
 - a. A survey map providing contamination and exposure rates keyed to specific locations within each room where radioactive material was used and stored;
 - b. Background readings as well as guidance/action levels;
 - c. Instrumentation used including the manufacturer's names and model numbers, last calibration date, and efficiency/correction factors;
 - d. Date and name/s of individuals performing the final status survey;
- 2) List of sealed sources used at the location;
- 3) Most recent leak test results for each source before transfer/shipment, if applicable;
- 4) Disposition of each source (facility, license number)
- 5) Acknowledgement documentation (from the recipient licensee Radiation Safety Officer) for each source transferred to another authorized recipient, confirming such receipt.

Please provide the requested information under a signed and dated letter by July 16, 2018. You may submit the letter and any other documentation as a pdf document and email it directly to me.

Thank you for your assistance in this matter.

Sincerely,

Magdalena R. Gryglak
U.S. NRC Region III
630-829-9875