

Jason M. Kelly, MPH, CPH
Health Physicist
Materials Licensing Branch
U.S. Nuclear Regulatory Commission; Region III
2443 Warrenville Road, Suite 210; Lisle, IL 60532-4352
Office: (630) 829-9737; Fax: (630) 515-1078

March 21, 2024

License No. : **13-15933-01**

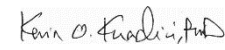
Dear Mr. Kelly,

We've closed our hot lab in the old hospital, listed in item 10.A. of the above license number. We will be using radioactive materials exclusively in the new hospital (listed in item 10.B.)

Attached, you will find the documentations listed in your email of March 13.

Please let me know if you have any other questions.

Thank you, in advance, for your time!


Kevin O. Khadivi, PhD, D.ABMP
Radiation Safety Officer

1201 S. Main St., Crown Point, IN 46307
Kevin.Khadivi@Varian.com ; M +737-899-5366

FRANCISCAN HEALTH
CROWN POINT, INDIANA
SEALED SOURCE INVENTORY-HOT LAB ✓

SOURCE	Certified		Inventory – check mark if source is present							
	Date	uCi/mCi	10/23	01/24	04/24	07/24	10/24	01/25	04/25	07/25
1. Cesium 137 vial 1946-9-23	06/01/2017	199.7 uCi	✓	✓						
2. Cs 137 disk 1910-77-13	06/01/2017	10 uCi	✓	✓						
3. Co57 Snake 2295-17-1	04/01/2022	460 uCi	✓	✓						
4. Co57 Flood 2299-104	05/01/2022	10 mCi	✓	✓	Returned 1/30/2024					
5. Cs137 check source CS338	05/01/2017	1 uCi	✓	✓						
6. Cs137 rod 2374-85-34	10/01/2023	0.5 uCi	✓	✓						
7. Cs137 vial BM06137E23227101	08/21/2023	275 uCi	✓	✓						
8. C057 Flood 2435-111	02/01/2024	10 mCi	✓	✓						
Date performed			10/17/23	1/17/24						
Tech's Initials			PD	PD						
RSO's Initials			KK, RSO	KK, RSO						

OneDrive/Sealed Sources

FRANCISCAN HEALTH CROWN POINT

NUCLEAR MEDICINE HOT TRASH DISPOSAL LOG ✓

All Readings from Ludlum Geiger Counter 14C

DATE DISPOSED	ITEM DISPOSED OF	RADIONUCLIDE	DATE STORED	READING MR/HR	BKG MR/HR	TECH
8/21/23	NEEDLE BOX	Tc99m	5/30/23	0.02	0.02	EK
9/14/23	" "	Tc99m	8/21/23	0.02	0.02	EK
10/10/23	Needle box	Tc99m	8/30	0.02	0.02	PD
11/15/23	" "	" "	10/10/23	0.02	0.02	PD
" "	" "	" "	11/26/23	" "	" "	PD
12/14/23	" "	" "	11/25/23	0.02	0.02	PD
1/4/2024	Needle box	Tc99m	12/14/23	0.02	0.02	PD
↓	↓	↓	12/14/23	↓	↓	↓
↓	Aerosol Tubing	↓	12/18/23	↓	↓	↓
↓	↓	↓	12/14	↓	↓	↓
↓	↓	↓	12/14	↓	↓	↓
↓	↓	↓	12/28	↓	↓	↓
↓	↓	↓	12/13	↓	↓	↓
↓	↓	↓	12/27	↓	↓	↓
2/4/24	needle box	Tc99m	1/26/24	0.02	0.02	PD
↓	↓	↓	1/26/24	↓	↓	↓
↓	↓	↓	1/12/24	↓	↓	↓
↓	↓	↓	1/10/24	↓	↓	↓
3/1/24	Trash	INDI	2/5	0.02	0.02	PD
↓	Aerosol Tubing	Tc99m	2/8	↓	↓	↓
↓	↓	↓	2/7	↓	↓	↓
↓	↓	↓	2/12	↓	↓	↓
↓	↓	↓	2/24	↓	↓	↓
↓	↓	↓	2/12	↓	↓	↓
↓	↓	↓	2/23	↓	↓	↓
The Last						

(*) hot trash decayed & disposed of after move.

SEALED SOURCE TRANSFER LOG

Source transfer to different facility on same license document ✓

Date: 1/8/2024 ✓

From: Franciscan Health, 1201 South Main Street, Crown Point, IN 46307

To: Franciscan Health, 12750 S. Francis Drive, Crown Point, IN 46307

Item #	Isotope:	Manufacturer:	Model:	Serial #	Activity	Ref. Date:
1	Cs-137	RadQual	BM06E-37250	BM06137E2322701	0.275 mCi	8/21/2023
2	Cs-137	E&Z	GF-0008	2374-85-34	0.5 uCi	10/1/2023

The sources were packaged by Jeremy Kieser and transported on January 8, 2024

The sources were received and accepted by Patricia Doffin on January 8, 2024

From: Franciscan Health, 1201 South Main Street, Crown Point, IN 46307

Name Patricia Doffin

Phone # 219-757-6474

To: Franciscan Health, 12750 S. Francis Drive, Crown Point, IN 46307

Name: Patricia Doffin

Phone: 219-757-6474

SEALED SOURCE TRANSFER LOG ✓

DATE OF TRANSFER: January 26, 2024 ✓

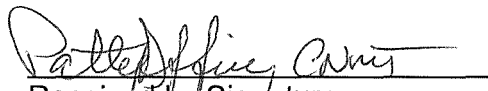
TRANSFER FROM: Franciscan Alliance, Inc. ✓
d/b/a Franciscan Health Crown Point
1201 S Main St
Crown Point, IN 46307
License #13-1593-33

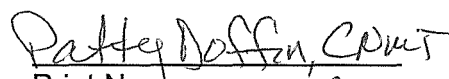
TRANSFER TO: Franciscan Alliance, Inc. ✓
d/b/a Franciscan Health Crown Point
12750 Saint Francis Dr.
Crown Point, IN 46307
License #13-1593-33

TRANSFER BY: Cardinal Health NPHS ✓
2715 W Main St, Ste A
Highland, IN 46322
License # 34-29200-01MD

Nuclide	Type (b/g)	Serial Number	Assay Activity	Assay Date	Current Activity	Leak Test Date	Leak Test Results* (Pass/Fail)
Co-57	Flood	MED3709	10 mCi	2.1.2024	8.96 mCi	1.2.2024	Pass, by mfg
Cs-137	Disc	1910-77-13	10 uCi	6.1.2017	8.55 uCi		n/a
Co-57	Flexible Ruler	2295-17-1	460 uCi	4.1.2022	74.46 uCi		n/a
Cs-137	Vial	RV-137-200U	199.7 uCi	6.1.2017	170.76 uCi	1.15.2024	Pass
CS-137	Disc	CS338	1 uCi	5.2016	0.834 uCi		n/a

*Pass=Removable contamination less than 0.005 uCi.


Received by Signature Supervisor


Print Name Supervisor

Kevin O. Khadivi, PhD
RSO Signature

Kevin O. Khadivi, PhD, RSO
Print Name

STAN A. HUBER CONSULTANTS, INC.

200 NORTH CEDAR ROAD -- NEW LENOX IL 60451-1751 -- PHONE 815-485-6161

SEALED GAMMA/BETA SOURCES - LEAK TEST CERTIFICATE



REPORT DATE: 1/15/2024
FACILITY: Franciscan Health - Crown Point
Crown Point IN
NRC LICENSE NUMBER:
STATE LICENSE NUMBER: 13-15933-01
SOURCE IDENTIFICATION:

RADIONUCLIDE: Cs-137
ACTIVITY: 199.7 uCi
CALIBR. DATE: 6/1/2017
MANUFACTURER: Eckert & Ziegler
MODEL NUMBER: SRV-137-200U
SERIAL NUMBER: 1946-9-23
OTHER DESCRIPTION: Vial Source

old vial

ASSAY RESULTS:

COUNTING EFFICIENCY: 0.267
BACKGROUND AT TIME OF ASSAY (CPM): 100
LLD (uCi): 0.00008

	MAX CPM	NET CPM	DPM	ACTIVITY uCi
WET WIPE	96	0	<LLD	<LLD
DRY WIPE	106	6	<LLD	<LLD

ANALYSIS PERFORMED USING:

Packard Auto-Gamma Scintillation Spectrometer Model #D5003 Serial #406282 AND/OR
Packard 1900CA Tri-Carb Liquid Scintillation Analyzer Model #A1900 Serial #101464

ANALYSIS OF RESULTS:

Sources are not leaking at this time
Removable contamination is less than 5E-3 uCi. (0.005)

NEXT LEAK TEST DUE BY: July 4, 2024

LEAK TEST PERFORMED BY: Patty Doffin

DATE: 1/4/2024

ANALYSIS PERFORMED BY: Mark Dewald

DATE: 1/15/2024

RADIATION SAFETY OFFICER SIGNATURE:

Kevin O. Khadivi, PhD

STAN A. HUBER CONSULTANTS, INC.

200 NORTH CEDAR ROAD -- NEW LENOX IL 60451-1751 -- PHONE 815-485-6161

SEALED GAMMA/BETA SOURCES - LEAK TEST CERTIFICATE



REPORT DATE: 1/15/2024
FACILITY: Franciscan Health - Crown Point
Crown Point IN
NRC LICENSE NUMBER:
STATE LICENSE NUMBER: 13-15933-01
SOURCE IDENTIFICATION:

RADIONUCLIDE: Cs-137
ACTIVITY: 275 uCi
CALIBR. DATE: 8/21/2023
MANUFACTURER: Rad Qual
MODEL NUMBER: Not Provided
SERIAL NUMBER: BM06137E23227101
OTHER DESCRIPTION: Vial Source

new vial

ASSAY RESULTS:

COUNTING EFFICIENCY: 0.267
BACKGROUND AT TIME OF ASSAY (CPM): 100
LLD (uCi): 0.00008

	MAX CPM	NET CPM	DPM	ACTIVITY uCi
WET WIPE	96	0	<LLD	<LLD
DRY WIPE	89	0	<LLD	<LLD

ANALYSIS PERFORMED USING:

Packard Auto-Gamma Scintillation Spectrometer Model #D5003 Serial #406282 AND/OR
Packard 1900CA Tri-Carb Liquid Scintillation Analyzer Model #A1900 Serial #101464

ANALYSIS OF RESULTS:

Sources are not leaking at this time
Removable contamination is less than $5E-3$ uCi. (0.005)

NEXT LEAK TEST DUE BY: July 4, 2024

LEAK TEST PERFORMED BY: Patty Doffin

DATE: 1/4/2024

ANALYSIS PERFORMED BY: Mark Dewald

DATE: 1/15/2024

RADIATION SAFETY OFFICER SIGNATURE:

Kevin O. Khadivi, PhD

STAN A. HUBER CONSULTANTS, INC.

200 NORTH CEDAR ROAD -- NEW LENOX IL 60451-1751 -- PHONE 815-485-6161

SEALED GAMMA/BETA SOURCES - LEAK TEST CERTIFICATE

REPORT DATE: 1/15/2024
FACILITY: Franciscan Health - Crown Point
Crown Point IN
NRC LICENSE NUMBER:
STATE LICENSE NUMBER: 13-15933-01
SOURCE IDENTIFICATION:

RADIONUCLIDE: Co-57
ACTIVITY: 460 uCi
CALIBR. DATE: 4/1/2022
MANUFACTURER: Eckert & Ziegler
MODEL NUMBER: Not Provided
SERIAL NUMBER: 2295-17-1
OTHER DESCRIPTION: Flexible Ruler

ASSAY RESULTS: COUNTING EFFICIENCY: 0.926
BACKGROUND AT TIME OF ASSAY (CPM): 40
LLD (uCi): 0.00002

	MAX CPM	NET CPM	DPM	ACTIVITY uCi
WET WIPE	57	17	<LLD	<LLD
DRY WIPE	64	24	<LLD	<LLD

ANALYSIS PERFORMED USING:
Packard Auto-Gamma Scintillation Spectrometer Model #D5003 Serial #406282 AND/OR
Packard 1900CA Tri-Carb Liquid Scintillation Analyzer Model #A1900 Serial #101464

ANALYSIS OF RESULTS:
Sources are not leaking at this time
Removable contamination is less than 5E-3 uCi. (0.005)

NEXT LEAK TEST DUE BY: July 4, 2024

LEAK TEST PERFORMED BY: Patty Doffin

DATE: 1/4/2024

ANALYSIS PERFORMED BY: Mark Dewald

DATE: 1/15/2024

RADIATION SAFETY OFFICER SIGNATURE:

Kevin O. Khadivi, PhD



Eckert & Ziegler

Isotope Products

Medical & Isotrak Laboratory
24937 Avenue Tibbitts • Valencia, CA 91355

Industrial Laboratory
1800 North Keystone Street • Burbank, CA 91504
www.ezag.com
Tel 661.309.1010 • Fax 661.257.8303

NOMINAL SOURCE CERTIFICATE



Product Code: 3709.AD.010M.N **Quantity:** 1
Model: MED3709 **SS&DR No.:** CA0406S180S
Active Region: 610 mm x 419 mm (24.0" x 16.5") **ISO/ANSI Classification:** ANSI 77C23313
Capsule Type: A3525-2 **Nuclide Half Life:** 271.79 ± 0.09 days
Cover/Backing: ABS Plastic **Recommended Replacement Date:** 2025-08-01

Nuclide	Serial Number	Activity	Reference Date
Co-57	2435-111	370 MBq (10 mCi)	2024-02-01

Source Field Uniformity Measurement:

Source uniformity measurement of the 122/136 keV gamma emission was performed using a gamma camera scanning system. An array of "unit cells" was measured to calculate the uniformity data shown below.

Unit Cell Area:	0.91 cm ²	Integral Non-Uniformity (INU):	1.89%
Coefficient of Variation:	0.61%	Differential Non-Uniformity (DNU):	1.53%

Impurities: Co-56 and Co-58 combined is < 0.12% on 2024-02-01

Notes:

This document uses the numerical convention where 1.000 = 1 and 1,000 = 10³.

This document uses the date convention YYYY-MM-DD in accordance with ISO 8601.

Nuclear data was taken from IAEA-TECDOC-619, 1991.

The referenced ISO/ANSI classification is compliant to ISO 2919:2012.

Coefficient of Variation: The standard deviation of the distribution of the measured values by the mean of measured values.

Integral Non-Uniformity: (Max – Min)/(Max + Min), where Max represents the largest measurement and Min represents the smallest measurement in the useful region.

Differential Non-Uniformity: (Max – Min)/(Max + Min) represents the largest deviation between a central value and the eight surrounding measurements.

Leak Test Frequency = 6 months.

Nature of Active Deposit: Co-57 dispersed onto stable print media.

1/15/24

New Flood

Leak Test:

The leak test(s) stated below was (were) either derived or directly taken from the leak test methods listed in ISO 9978:2020. The leak test(s) below complies (comply) with ISO 9978:2020 and does (do) not exceed the regulatory limit of <5 nCi (185 Bq) of removable alpha and beta-gamma emitting activities. Leak tests conducted resulted in <5nCi (185 Bq) of removable activity unless otherwise stated on this certificate.

This source was wiped over its entire surface with a moistened filter paper disk. After drying, the disk was checked for activity using a scintillation detector.

CA

SIGNATURE

2024-01-02
DATE

NOTEBOOK: 2386-68-15

ISO 13485 CERTIFIED



Authorized Representative

Eckert & Ziegler Nuclitec GmbH Gieselweg 1 38110 Braunschweig GERMANY
Tel: +49 (0) 5307 9320 • Fax: +49 (0) 5307 932 293



**Receiving**

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

Telephone +1-661-309-1010
Fax +1-661-257-8303

Shipped From:

Franciscan Health,
Patty Doffin, 219-757-6076,
Patricia.Doffin@franciscanalliance.org
1201 South Main Street
Crown Point, Indiana 46307
United States

Return Acknowledgement

Return Number CO-500647
RMA number RA-029935
Date 2/2/2024
Page 1 of 1
Customer account REICON01
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
A3525-2-10M		2299-104	1.00	1/30/2024	COMPONENT : R24 Flood Source MED3709-10M
Nuclide Info: Co-57 10 mCi Ref. Date: 5/1/2022					

old Flood ✓

Flood
Returned.

Martha Pavon

From: Jason Kelly
Sent: Thursday, March 21, 2024 6:22 PM
To: Martha Pavon
Cc: Sandy Pavon
Subject: FW: RE: RE: U.S. NRC Materials License #13-15933-01 - Request for Additional Information
Attachments: follow-up to amendment request_License 13-15933-01.pdf; License 13-15933-01_followup_request to amend RAML by removing item 10a.pdf

Martha,

Attached is an incoming Response to a Request for Additional Information Letter dated March 21, 2024 for Materials License No. 13-15933-01 (Franciscan Alliance, Inc.), Docket No. 030-10047 for Control No. 639355.

Jason M. Kelly, MPH, CPH
Health Physicist
U.S. NRC Region III – DRSS MLB
Phone: (630) 829-9737
E-mail: Jason.Kelly@nrc.gov

From: Khadivi, Kevin <kevin.khadivi@varian.com>
Sent: Thursday, March 21, 2024 4:46 PM
To: Jason Kelly <Jason.Kelly@nrc.gov>
Subject: [External_Sender] RE: RE: U.S. NRC Materials License #13-15933-01 - Request for Additional Information

Please see the attached cover letter and the support materials. Thank you!

From: Jason Kelly <Jason.Kelly@nrc.gov>
Sent: Thursday, March 21, 2024 11:41 AM
To: Khadivi, Kevin <kevin.khadivi@varian.com>
Subject: RE: RE: U.S. NRC Materials License #13-15933-01 - Request for Additional Information

You don't often get email from jason.kelly@nrc.gov. [Learn why this is important](#)

Thank you for the response. Please resubmit the response with an accompanying signed cover letter.

Jason M. Kelly, MPH, CPH
Health Physicist
Materials Licensing Branch
U.S. Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352
Office: (630) 829-9737
Fax: (630) 515-1078



<http://www.nrc.gov/>

From: Khadivi, Kevin <kevin.khadivi@varian.com>
Sent: Thursday, March 21, 2024 11:19 AM
To: Jason Kelly <Jason.Kelly@nrc.gov>
Subject: [External_Sender] RE: U.S. NRC Materials License #13-15933-01 - Request for Additional Information

Mr. Kelly,

Attached, you will find the documentations listed in your email.

Please let me know if you have any other questions.

Thank you, in advance, for your time!

Kevin O. Khadivi, PhD, D.ABMP
Radiation Safety Officer

1201 S. Main St., Crown Point, IN 46307
Kevin.Khadivi@Varian.com ; M +737-899-5366

P.S. I overlooked the confirmation of receipt that was noted at the end of your email, below. I apologize!

From: Jason Kelly <Jason.Kelly@nrc.gov>
Sent: Wednesday, March 13, 2024 9:28 AM
To: Khadivi, Kevin <kevin.khadivi@varian.com>
Subject: U.S. NRC Materials License #13-15933-01 - Request for Additional Information

You don't often get email from jason.kelly@nrc.gov. [Learn why this is important](#)

Dr. Khadivi:

I have reviewed your letter dated February 20, 2024, in which you requested an amendment to U.S. Nuclear Regulatory Commission (NRC) Materials License No. 13-15933-01 to remove the licensed facility at 1201 S. Main St., Crown Point, Indiana. Upon review, I identified the following areas in which additional or clarifying information is needed:

1. Submit applicable records of transfer and/or disposal of all licensed materials, including radioactive waste, formerly received, used and/or stored at the facility. This may include, for example:
 - calibration and reference sources;
 - transmission sources;
 - unused patient dosages;
 - field flood sources; and/or
 - Mo-99/Tc-99m generators.
2. Provide acceptable leak test reports for all sealed sources and devices previously stored and/or used at the facility, as applicable.

3. Describe any incidents involving ruptured, leaking, or lost sealed sources or devices along with any other incidents involving radioactive materials at the facility.

Please provide a written and signed response to this request within 15 calendar days. To ensure proper routing, please include a reference to your institution's U.S. NRC Materials License No. 13-15933-01 along with Control No. 639355. Once you are ready to submit the response, you may forward it to me via e-mail. If you do not receive a prompt acknowledgement of receipt, you are also welcome to send a confirming hardcopy by U.S. Mail to the address in my signature block below.

As you will not receive a hardcopy of this request, please respond to this e-mail verifying that you have received it. Please contact me at (630) 829-9737 or Jason.Kelly@nrc.gov if you have any questions or if you need additional time to respond to this request.

Jason M. Kelly, MPH, CPH
Health Physicist
Materials Licensing Branch
U.S. Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352
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Fax: (630) 515-1078



<http://www.nrc.gov/>