

May 24, 2021

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

Via email: Magdalena.Gryglak@nrc.gov

Dear Ms. Gryglak:

Re NRC License Number 24-00128-03

This is a response to your request, by email dated May 18, 2021, for additional information in support of my license amendment application dated April 22, 2021.

- The two Gd-153 sources were placed into decay-in-storage in 2002 and were not used subsequently.
- The two sources were discarded to normal waste on October 16, 2020. Attached are copies of the two sealed source records from our NMIS that shows the disposal date. Also attached is the sealed source inventory report dated December 7, 2020 that shows that the sources had been removed from our inventory.
- The two sources were leak tested on June 21, 2020. A copy of the leak test report for each source attached.

If you have any questions regarding this application, please feel free to call me at 573-519-4710 (office) or 573-270-7492 (mobile).

Sincerely,



Sam S. Hancock, PhD
Radiation Safety Officer

Enclosures:

Sealed source record for Gd-153, SN 29117-H, showing disposal 10/16/2020
Leak test record for source SN 29117-H dated 12/7/2020
Sealed source record for Gd-153, SN 29128-H, showing disposal 10/16/2020
Leak test record for source SN 29128-H dated 12/7/2020
Sealed source inventory report dated 12/7/2020

cc: Mariellena Sudak, VP, COO



Southeast Missouri Hospital

Nuclear Medicine Department

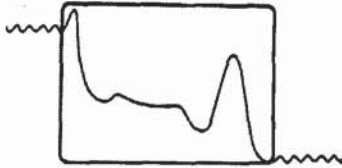
1701 Lacey Street, Cape Girardeau, MO 63701

NRC # 24-00128-03

May 21, 2021

Sealed Source Record

Descriptive Name _____ : Gd-153, LINE SOURCE
Chemical/Isotope Name _____ : Gd - 153
Manufacturer/Supplier _____ : NORTH AMER. SCI.
Serial Id _____ : 29117-H
Model # _____ :
Half-life _____ : 241.60 days
Source Uniq # _____ : 46
Calibration Activity _____ : 250.0000 mCi
Calibration Date _____ : 10-01-2002
Purchase Date _____ : 11-07-2002
Location _____ : NMHL STORE3
Is the source in use ? _____ : N
Technologist Initials _____ : ELZ
Isotope Specific Efficiency _____ :
Out of Window Correction Factor _____ :
Disposed _____ : gen1016-02 on 10-16-20 11:14
Comment _____ : RSRR/5942



Monitoring Services

P.O. BOX 266677 . HOUSTON, TEXAS 77207-6677 . AREA CODE 713-478-6820 . FAX 281-532-0929
leaktest1@comcast.net

SEALED SOURCE LEAK TEST CERTIFICATE

BARB BUCHER
S.E. MISSOURI HOSPITAL.
1701 LACEY ST.

CUSTOMER #: 2267

CAPE GIRARDEAU

MO
63701

SOURCE #: 33679

ACOUNT #: 1731

RADIONUCLIDE: GD-153

ACTIVITY: 0.11489 CI

SERIAL NO: 29117 H

WIPE DATE 6/9/2020

EFFICIENCY: 0.6

GROSS CPM: 28 BKG CPM: 18 NET CPM: 10

$\frac{\text{NET CPM}}{\text{EFF} \times 2.22 \times 10^6 \text{ DPM/u CI}} = \text{MICROCURIE}$

THE ABOVE SOURCE WIPE TEST HAS BEEN ASSAYED IN ACCORDANCE WITH OUR RADIOACTIVE MATERIAL LICENSE AND THE APPROPRIATE REGULATORY REQUIREMENTS. THE REGULATIONS DEFINE A LEAKING SOURCE AS ONE FROM WHICH AN APPROPRIATE WIPE TEST HAS REMOVED 0.005 (5.0×10^{-3}) MICROCURIE OR MORE OF ACTIVITY.

THE REMOVABLE ACTIVITY WAS: 7.51E-06 MICROCURIE

ASSAY NO.: 6/21/2020 21 DATE: 6/22/2020

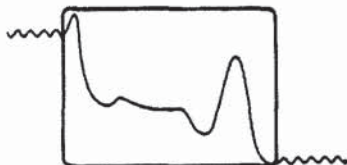
ASSAYED BY: 



May 21, 2021

Sealed Source Record

Descriptive Name _____: Gd-153, LINE SOURCE
Chemical/Isotope Name _____: Gd - 153
Manufacturer/Supplier _____: NORTH AMER. SCI.
Serial Id _____: 29128-H
Model # _____: _____
Halflife _____: 241.60 days
Source Uniq # _____: 47
Calibration Activity _____: 250.0000 mCi
Calibration Date _____: 10-01-2002
Purchase Date _____: 11-07-2002
Location _____: NMHL STORE3
Is the source in use ? _____: N
Technologist Initials _____: ELZ
Isotope Specific Efficiency _____: _____
Out of Window Correction Factor: _____
Disposed _____: gen1016-02 on 10-16-20 11:14
Comment _____: RSRR/5942



Monitoring Services

P.O. BOX 266677 . HOUSTON, TEXAS 77207-6677 . AREA CODE 713-478-6820 . FAX 281-532-0929
leaktest1@comcast.net

SEALED SOURCE LEAK TEST CERTIFICATE

BARB BUCHER
S.E. MISSOURI HOSPITAL.
1701 LACEY ST.

CUSTOMER #: 2267

CAPE GIRARDEAU

MO
63701

SOURCE #: 33678

ACOUNT #: 1731

RADIONUCLIDE: GD-153

ACTIVITY: 0.11489 CI

SERIAL NO: 29128 H

WIPE DATE 6/9/2020

EFFICENCY: 0.6

GROSS CPM: 22 BKG CPM: 18 NET CPM: 4

NET CPM
EFF X 2.22x10⁶ DPM/u CI = MICROCURIE

THE ABOVE SOURCE WIPE TEST HAS BEEN ASSAYED IN ACCORDANCE WITH OUR RADIOACTIVE MATERIAL LICENSE AND THE APPROPRIATE REGULATORY REQUIREMENTS. THE REGULATIONS DEFINE A LEAKING SOURCE AS ONE FROM WHICH AN APPROPRIATE WIPE TEST HAS REMOVED 0.005 (5.0X10E-3) MICROCURIE OR MORE OF ACTIVITY.

THE REMOVABLE ACTIVITY WAS: 3.00E-06 MICROCURIE

ASSAY NO.: 6/21/2020 30 DATE: 6/22/2020

ASSAYED BY:



Southeast Missouri Hospital

Nuclear Medicine Department

1701 Lacey Street, Cape Girardeau, MO 63701

NRC # 24-00128-03

December 07, 2020

Sealed Sources Inventory Check Report

Date Range : 12-01-2020 thru 12-07-2020

Date	Chemical Name	Manufacturer	Serial #	Cal. date	Current Act.	Location	Present Y/N ?	Tech.
12/7/2020	Co - 60	DUPONT	S354012-003	07-15-1998	2.87 uCi	NMHL DOSE CAL	Y	BB
	Ba - 133	DUPONT	S358023-085	10-08-1997	59.73 uCi	NMHL DOSE CAL	Y	BB
	Cs - 137	DUPONT	S356037-016	06-27-1998	133.69 uCi	NMHL DOS CAL	Y	BB
	Cs - 137		S-3	04-14-1974	1.71 nCi	NMHL TOP DRAWER	Y	BB
	Cs - 137	ISOTOPE PRO. LAB.	BC-882	01-01-1999	18.12 mCi	NMHL STORAGE3	Y	BB
	Cs - 137	ISOTOPE PRO. LAB.	BC-883	01-01-1999	18.12 mCi	NMHL STORAGE3	Y	BB
	Co - 57	RAD QUAL	01L1516112101 H	05-21-2016	0.21 mCi	HOT LAB	Y	BB
	Eu - 152	Eckert & Ziegler Iso	1848-84-28	03-01-2017	0.41 uCi	INJ WELL COUNTER	Y	BB
	Cs - 137	Eckert & Ziegler Iso	1848-79-37	03-01-2017	0.46 uCi	INJ ROOM WELL COUNT	Y	BB
	Gd - 153	Eckert & Ziegler Iso	R9-800-H	10-01-2019	2.89 mCi	SYMBIA RM2	Y	BB
	Co - 57	RAD QUAL	BM01L1519305203	12-01-2019	5.79 mCi	HOT LAB	Y	BB
	Gd - 153	Eckert & Ziegler	S4-514-H	03-01-2020	4.46 mCi	RM 4	Y	BB
	Co - 57	Eckert & Ziegler	S5-901-H	05-01-2020	28.47 uCi	Symbia RM 2	Y	BB
	Co - 57	Eckert & Ziegler	2097-100-9H	06-01-2020	3.49 mCi	HOT LAB	Y	BB
	Co - 57	Eckert & Ziegler Iso	S6-714-H	06-01-2020	30.81 uCi	Room 4	Y	BB

The above Report indicates all of the Sealed Sources have been accounted for.

Tech Information:

Tech Initials	Complete Name
BB	BARBARA S. BUCHER

RSO Signature : _____

Technologist Signature : _____