

BARBARA ANN
KARMANOS
CANCER CENTER

At the Detroit Medical Center

January 23, 2013

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

Re: Additional information pertaining to license number 21-04127-06 item 6.K.

Dear Bryan,

Here is the license item 6.K. update you requested.

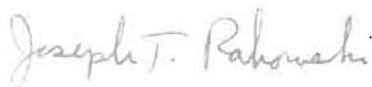
a. Sealed sources 3M Model 6D6C-CA and Amersham Model CDCQ certificates are attached. Please note the following correction to the April 7, 2006 letter attached to our January 8, 2013 letter. In the table listing the sources that were disposed: row 1 serial number 1057 should be 0157; row 8 serial number 2654 should be 2854.

b. Please assign a possession limit of 500 millicuries to MED 3633 Pd-103 brachytherapy sources, and 1 Ci to the remaining I-125 brachytherapy sources.

c. Please assign a possession limit of 15 ~~microcuries~~
millicuries * to the Sr-90 applicator.

If you require further assistance please contact me at (313) 576-9616. Thank you.

Sincerely



Joseph T. Rakowski
Radiation Safety Officer

* CLARIFIED VIA EMAIL
WITH J. RAKOWSKI
ON 01/24/13 THAT IT
WAS "MILLCURIES",
NOT MICROCURIES.

BAP
01/24/13

4100 John R
Detroit, Michigan 48201
(800) KARMANOS (1-800-527-6266)
info@karmanos.org | www.karmanos.org



Consignee: Harper Hospital Page 1 of 2
 Address: Detroit, MI
 Invoice No. KM39161

70-4.12
 23 Apr 1981

Measurement

The following radioactive sources are certified by Minnesota Mining and Manufacturing Company (3M) to have been subjected to the tests described below and to have given the results listed.

Model Number	Serial Number	Nominal Milligram Radium Equivalent Cesium-137	Milligram Radium Equivalent* Cesium-137	Millicuries** Cesium-137
6501 (6D6C-CA)	4212	10	10.6	26.6
	4214		10.6	26.6
	4352		10.6	26.6
	4256		10.5	26.4
	4264		10.6	26.6
	4270		10.5	26.5
6502 (6D6C-CA)	2822	15	15.2	38.2
	2825		15.1	38.0
	2829		15.1	38.0
	2843		15.2	38.3
	2846		15.2	38.2
	2854		15.1	38.0
	2855		15.1	38.0
	2859		15.1	38.0
	2877		15.2	38.2
	2892		15.2	38.3
6503 (6D6C-CA)	1995	20	20.5	51.6
	2008		20.5	51.6
	2071		20.5	51.5
	2067		20.5	51.6
	2074		20.5	51.6
	2079		20.5	51.5

*mg Radium equivalent calculated as described.
 **Cesium-137 activity measured as described.

Wipe test < 0.0001 μ Ci removable activity (each)
 Soak test < 0.0005 μ Ci removable activity (each)
 Leak test Negative (immersion)

3M Print Number: B-1921-18, Issue L
 Special Form requirements met

In compliance with our NRC distribution license, Model 6500-6507 and Model 6520-6524 sources require leak testing at a maximum interval of three (3) years.
 No other certification is to be implied.

Q.C. Supervisor Shaun J. Duen Date 17 Aug 1982
 T.H. Reiner

Form 20818-A-PWO

Medical Products Division/3M
 St. Paul, MN 55144



Consignee: Harper Hospital

Page 2 of 2

70-4.12
23 Apr 1981

Address: Detroit, MI

Invoice No. KM39161

Measurement

The following radioactive sources are certified by Minnesota Mining and Manufacturing Company (3M) to have been subjected to the tests described below and to have given the results listed.

Model Number	Serial Number	Nominal Milligram Radium Equivalent Cesium-137	Milligram Radium Equivalent* Cesium-137	Millicuries** Cesium-137
6504 (6D6C-CA)	810	25	27.1	68.0
	816	RETURNED	26.9	67.6
	818		26.7	67.1
	843		27.1	68.1
6505 (6D6C-CA)	157		30	31.2
	164		31.3	78.6

*mg Radium equivalent calculated as described.
**Cesium-137 activity measured as described.

Wipe test < 0.0001 μ Ci removable activity (each)
Soak test < 0.0005 μ Ci removable activity (each)
Leak test Negative (immersion)

3M Print Number: B-1921-18, Issue L
Special Form requirements met

In compliance with our NRC distribution license, Model 6500-6507 and Model 6520-6524 sources require leak testing at a maximum interval of three (3) years.

No other certification is to be implied.

O.C. Supervisor Sharon A. Owen
H. Pfeiffer

Date 17 Aug 1982

Form 20818-A-PWO

Medical Products Division/3M
St. Paul, MN 55144



Consignee: Harper-Grace Hospital

70-4.12
23 Apr 1981

Address: Detroit, MI

Invoice No. KM96728

Measurement

The following radioactive sources are certified by Minnesota Mining and Manufacturing Company (3M) to have been subjected to the tests described below and to have given the results listed.

Model Number	Serial Number	Nominal Milligram Radium Equivalent Cesium-137	Milligram Radium Equivalent* Cesium-137	Millicuries** Cesium-137
6503 (6D6C-CA)	2021	20	21.1	53.0
	2022		21.0	52.9
	2033		20.9	52.6
	2034		21.0	52.7
	2050		21.1	53.0
	2068		21.0	52.7
6504 (6D6C-CA)	866	25	25.9	65.0
	869		25.6	64.2
	876		25.6	64.4
	900		25.4	63.8

*mg Radium equivalent calculated as described.

**Cesium-137 activity measured as described.

Wipe test < 0.0001 μ Ci removable activity (each)

Soak test < 0.0005 μ Ci removable activity (each)

Leak test Negative (immersion)

3M Print Number: B-1921-18, Issue L

Special Form requirements met

In compliance with our NRC distribution license, Model 6500-6507 and Model 6520-6524 sources require leak testing at a maximum interval of three (3) years.

No other certification is to be implied.

Q.C. Supervisor

Sharon J. Duem
T. H. Redner

10 Sep 1982

Date

Form 20818-A-PWO

Medical Products Division/3M
St. Paul, MN 55144

3M



Nuclear Products



3M CENTER • ST. PAUL, MINNESOTA 55101

THE GRACE HOSPITAL CENTRAL UNIT
Detroit, Michigan

3M 211408
PO 94688

None listed
copy
...

RADIOACTIVE SOURCE CERTIFICATION

The following radioactive sources are certified by Minnesota Mining and Manufacturing Company to have been subjected to the tests described below and to have given the results listed.

<u>Model Number</u>	<u>Serial Number</u>	<u>Nominal mg. Ra. Eq.</u>	<u>3M Assay* mg. Ra. Eq.</u>	<u>Nominal mCi Cs-137</u>	<u>Color Code</u>
6D6C-CA	0155	5	5.5	14	Blue
6D6C-CA	0157	5	5.3	14	Blue
6D6C-CA	0161	5	5.4	14	Blue
6D6C-CA	1133	10	11.1	27	Green
6D6C-CA	1136	10	11.1	27	Green
6D6C-CA	1137	10	11.1	27	Green
6D6C-CA	1142	10	11.1	27	Green
6D6C-CA	1143	10	11.1	27	Green
6D6C-CA	1149	10	11.1	27	Green
6D6C-CA	0484	15	15.7	41	Yellow
6D6C-CA	0488	15	15.7	41	Yellow
6D6C-CA	0490	15	15.7	41	Yellow
6D6C-CA	0491	16	15.7	41	Yellow
6D6C-CA	0496	15	15.6	41	Yellow
6D6C-CA	0507	15	15.7	41	Yellow
6D6C-CA	0351	20	21.4	54	Orange
6D6C-CA	0356	20	21.4	54	Orange
6D6C-CA	0138	25	27.1	68	Red
6D6C-CA	0159	25	27.5	68	Red
6D6C-CA	0034	30	33.7	82	Brown

- 1 ea Model BC9I Special Protective Group
- 1 ea Model BC9K Fletcher-Suit Afterloading Applicator
- 1 ea Model BC9L Fletcher-Suit Tandems & Pushers

Wipe test, each: <0.0001µCi removable activity
 Soak test, each: <0.0005µCi removable activity
 Leak test, each (immersion): Negative
 3M Print Number A1921-18

*0.5mm Platinum Filtration
 No other certification is to be implied.



Q.C. Supervisor *Kenneth M. Paddock* Date 15 June 1972

Kenneth M. Paddock

35-17.15, Rev. 2

Radioactive source test report

product code CDC6510	description CAESIUM-137 GAMMA SOURCE	nominal activity 1 30 MILLICURIE (1.11 GIGABEC)	customer AMERSHAM CORPORATION 2636 SOUTH CLEARBROOK DRIVE ARLINGTON HEIGHTS ILLINOIS 60015 U S A
AI item no. B45119	SEALED SOURCE		
BSI/ISO classification * NOT TESTED	special form certificate no. NONE	recommended working life 10 YEARS	customer's order no. S3293 HARPER GRACE HOSPITAL
serial number W797	measurement check MILLICURIES 27.5	measurement check date 21 APRIL 82	leakage test date passed 21 APRIL 82
			leakage test date passed 21 APRIL 82
			contamination test date passed 21 APRIL 82

*8mm PHYSICAL length
 2mm ACTIVE length (centered)
 D-H*

notes

TESTED TO A LIMIT OF 0.5 NANOCURIES

signed

J. Garland

date

22 APRIL 82

tion complies with BS.5288:1976, which is in agreement with ISO.2919 (see overleaf for definition and description of tests)

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Radioactive source test report

product code CDCQ615	description CAESIUM-137 GAMMA SOURCE	nominal activity 1.55 MICROCURIE (1.55 GIGABECQ)	customer AMERSHAM CORPORATION 2636 SOUTH CLEARCROOK DRIVE ARLINGTON HEIGHTS ILLINOIS 60005 U S A
AI item no. B45114	SEALED SOURCE		

BSI/ISO classification * NOT TESTED	special form certificate no. NONE	recommended working life 10 YEARS	customer's order no. S3293 HARPER GRACE HOSPITAL
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serial number	measurement check	measurement check date	leakage test		contamination test	
			date passed	leakage test	date passed	contamination test
W301	MILLICURIES 47.0	21 APRIL 82	21 APRIL 82	21 APRIL 82	21 APRIL 82	21 APRIL 82
			8mm PHYSICAL length 2mm ACTIVE length (centered) D.H.)			

TESTED TO A LIMIT OF 0.5 NANOCURIES

signed *[Signature]* date **22 APRIL 82**

The test procedure for this source should be in accordance with the recommendations of BS.5288:1976, which is in agreement with ISO.2919 (see overleaf for definition and description of tests)

complies with BS.5288:1976, which is in agreement with ISO.2919 (see overleaf for definition and description of tests)

AMERSHAM INTERNATIONAL LIMITED IS NOW A PUBLIC LIMITED COMPANY



Radioactive source test report

product code DCQ616	description CAESIUM-137 GAMMA SOURCE	nominal activity 1.75 MICROCURIES (2.77 MICROBQ)	customer 1-312-364-7100 AMERSHAM CORPORATION 2636 SOUTH CLEARBROOK DRIVE ARLINGTON HEIGHTS ILLINOIS 60015 U S A
AI item no. 345118	STALED SOURCE		

BSI/ISO classification * NOT TESTED	special form certificate no. NONE	recommended working life 10 YEARS	customer's order no. S3293 HARPER GRACE HOSPITAL
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serial number	measurement check	measurement check date	leakage test	date passed	leakage test	date passed	contamination test	date passed
W793	MILLICURIES 71.0	21 APRIL 82		21 APRIL 82		21 APRIL 82	21 APRIL 82	
		8mm Physical length 2mm ACTIVE length (centered) D.H.						

TESTED TO A LIMIT OF 0.5 NANOCURIES

signed *[Signature]* date 22 APRIL 82

over working life. In our recommendation
 when with the source should be
 used given has been assessed on the
 basis of the activity of the source. Total
 source construction for capsule design,
 dimensions, half-life of source, typical
 data etc. operation or experience.
 will not affect the appearance
 and the source is responsible
 during the recommended
 use should be checked

complies with BS.5288:1976, which is in agreement with ISO.2919 (see overleaf for definition and description of tests)

AMERSHAM INTERNATIONAL LIMITED IS NOW A PUBLIC LIMITED COMPANY

