



December 21, 2015

Sara A. Forster, Health Physicist Licensing Reviewer  
 U.S. Nuclear Regulatory Commission – Region III  
 Division of Nuclear Materials Safety  
 2443 Warrenville Rd. Ste. 210  
 Lisle, IL 60532-4352

NRC License No. 24-16652-01

Dear, Sara A. Forster

Re: Required additional information

The last date on which 10 CFR 35.400 Cesium 137 sources were used for medical purposes was December 17, 2012. All Cesium 137 sources are stored in the Cancer Center Hot lab at the Westwood Campus and are Secured with only the Radiation Safety Officer and Jessica Lane, Radiation Oncology Manager having access to Cancer Center Hot Lab. An inventory of Cs-137 will be maintained in the Office of Radiation Oncology Manager. List of all stored sources will be maintained for "possession incident to disposal"

- To remove the authorization for the use of byproduct material permitted by 10 CFR 35.300, please provide the following:
  - Last date on which 10 CFR 35.300 materials (e.g. iodine-131, samarium-153, strontium-89, etc.) were used or stored under this license, for each location where 10 CFR 35.300 materials were used or stored – **December 6, 2004**
  - Final disposal method (e.g. return dosages to manufacturer, decay-in-storage, etc.) and date: **I-131 100mCi Capsule was given orally to Patient on December 6, 2014.**
  - Confirmation that material was transferred or disposed, including name and or license number of entity to which sources were transferred. **I-131 100mCi Capsule was given orally to Patient. No materials were transferred.**
  - Spill history, if any **No Spills**
  - Final area surveys for areas where 10 CFR 35.300 material was used or stored **The last day Iodine-131 was administered to a patient was December 6, 2004. Dose was administered to patient (I-131 100mCi). Surveys were completed after I-131 dose was administered to patient. All exposure surveys and removable contamination wipes were performed. Staff performed Bioassay within 3 days after patient was administered I-131. There has been NO I-131 used or stored in Nuclear Medicine Hot Lab since December 6, 2014.**

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2. To remove the authorization for the use of iodine-125 and/or iodine-192 permitted by 10 CFR 35.400, please provide the following, for each radionuclide:
- **Last date on which 10 CFR 35.400 seeds (for each of iodine-125 or Pd-103 were used or stored under this license, for each location where 10 CFR 35.400 seeds were used or stored**  
**All seeds iodine -125 seeds were permanent implants, the last date Iodine-125 was used was 12/17/2012. There were 13 seeds returned to manufacture.**
  - Final disposal method (e.g. return seeds to manufacturer) and date
  - Confirmation of receipt of sources by manufacturer or other authorized entity
  - **History of leaking or lost sources, if any. No history of leaking or lost sources.**

*James Smith*

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Radiation Safety Officer  
901-262-7117  
Poplar Bluff Medical Center

### IMPLANT ORDER LOG SHEET

NAME	Isotope	Date Seeds Ordered	Orderor Initials	# Seeds	Prostate Volume	Date of Surgery	Date of Post-CT	Date Post Plan Complete
[REDACTED]	Pd103	10/18/12	[REDACTED]	117 seeds Pd103	41.2cc + 10% = 45.32cc	10/17/12	2/13/13	2/15/13 [REDACTED]
[REDACTED]	Pd103	10/21/12	[REDACTED]	135 seeds Pd103	47.9cc + 15% = 55.08cc	10/24/12	12/10/12	12/12/12 [REDACTED]
[REDACTED]	T125	11/29/12	[REDACTED]	122 seeds T125	55.1cc + 5% = 57.86cc	12/5/12	1/14/13	1/25/13 [REDACTED]
[REDACTED]	T125	12/10/12	[REDACTED]	96 seeds T125	29.8cc + 15% = 34.27cc	12/11/12	1/21/13	1/23/13 [REDACTED]
[REDACTED]	Pd103	3/4/13	[REDACTED]	129 seeds Pd103	33.9cc + 15% = 38.88cc	3/13/13	4/15/13	4/18/13 [REDACTED]
[REDACTED]	T125	3/4/13	[REDACTED]	96 seeds T125	29.1cc + 15% = 33.46cc	3/27/13	4/22/13	4/26/13 [REDACTED]
[REDACTED]	T125	4/1/13	[REDACTED]	123 seeds T125	54.6cc + 10% = 60.06cc	4/10/13	5/5/13	5/12/13 [REDACTED]
[REDACTED]	Pd103	5/5/13	[REDACTED]	124 seeds Pd103	51.7cc + 10% = 56.87cc	5/15/13	7/16/13	7/17/13 [REDACTED]
[REDACTED]	T125	6/24/13	[REDACTED]	127 seeds T125	46.5cc + 15% = 53.48cc	7/3/13	8/9/13	8/12/13 [REDACTED]
[REDACTED]	T125	7/22/13	[REDACTED]	92 seeds T125	38.1cc + 15% = 43.82cc	7/31/13	8/28/13	9/6/13 [REDACTED]
[REDACTED]	T125	7/22/13	[REDACTED]	88 seeds T125	26.4cc + 15% = 30.36cc	8/7/13	8/14/13	9/11/13 [REDACTED]

2013

done here as of  
 2/4/6 I sup for  
 Prostate  
 1999 - Sep 2012  
 [Signature]



Poplar Bluff Regional Medical Center

HOT LAB at Westwood – Security Declaration

On this date (12-08-2015): I, Keith Geer, hereby certify that the HOT LAB at Westwood Campus has been secured using a non-hospital key system. There are only two keys to the lock and both were given to Jessica Lane.

Respectfully,



William "Keith" Geer,  
Maintenance Tech. 1

Jessica Lane, Radiation Oncology manager 12/14/15

B. DC, Chief operating officer 12/14/15

J. Smith RSO 12/14/15



## MEDICAL PHYSICS SURVEY SEALED SOURCE INVENTORY

FACILITY: Poplar Bluff Regional Medical Center      DEPARTMENT: CTC  
 LOCATION: Poplar Bluff, Missouri

Nuclide:	Cs-137 (x2)	Cs-137 (x6)	Cs-137 (x6)	Cs-137 (x2)	Cs-137 (x4)	Cs-137	Cs-137	
Type:	Brachy	Brachy	Brachy	Brachy	Brachy	Cal/Src	Cal/Src	
Location:	Oncology Hot Lab	Oncology Hot Lab	Oncology Hot Lab	Oncology Hot Lab	Oncology Hot Lab	Oncology Hot Lab	Oncology Hot Lab	
Assay: (Date)	5mgRaEq 1992	11mgRaEq 1993	16mgRaEq 1994	25mgRaEq 1993	20mgRaEq 1994	194 uCi 10.20.75	1 mCi 7.1.75	
Mgr:	Medi Physics	Medi Physics	Medi Physics	Medi Physics	Medi Physics	NEN	Mall.	
Serial No.:	CY148 CY186	CY869, CY878 CY919, CY921 CZ301, CZ302	CY946, CZ339 CZ344, CZ346 CZ347, CZ362	CY804, CY805	CZ386, CZ387 CZ388, CZ398	208-226-27	750701	
Model:	CDCT1	CDCT1	CDCT1	CDCT1	CDCT1	NES 356	N/A	
DATE								Initial
1.12.15	Storage	Storage	Storage	Storage	Storage	Storage	Storage	MB
4.14.15	Storage	Storage	Storage	Storage	Storage	Storage	Storage	MB
7.14.15	Storage	Storage	Storage	Storage	Storage	Storage	Storage	MB
10.13.15	Storage	Storage	Storage	Storage	Storage	Storage	Storage	MB

Nuclide: Co-57  
 Type: Fid src  
 Location: Nuc HotLab  
 Assay: 10 mCi  
 (Date) 9.1.11  
 Mgr: E&Z  
 Serial No.: 1546-171  
 Model: MED3709

DATE

1.12.15      X  
 4.14.15      X  
 7.14.15      X  
 10.13.15     X

- X - INDICATES SOURCE INVENTORIED  
 1 - Source not inventoried/could not locate.  
 2 - Source in long-term decay storage area.  
 3 - Returned to manufacturer.  
 4 - Confirmed by staff.  
 5 - Under 100 uCi no wipe.

RSO Signature James Smit

# BRACHYTHERAPY & OTHER SEALED SOURCE STORAGE SITE SURVEYS

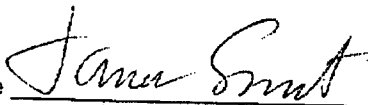
Radiation Oncology Department

## LOCATION OF SURVEY AND RESULTS IN MREM/HR

DATE	SURVEY METER (Serial Number)	A	B	C	D	E	F	Surveyor
1.12.15	LAB CLOSED							
4.14.15	110387	0.02	0.06	0.06	0.10	0.04	0.02	MB
7.14.15	110387	0.03	0.06	0.06	0.10	0.02	0.02	MB
10.13.15	110387	0.02	0.06	0.06	0.10	0.02	0.02	MB

LOCATION KEY: Cesium Safe    A. Front of L-shield    B. Right side    C. Left side    D. Back    E. Top    F. Background

RSO Signature





## MEDICAL PHYSICS SURVEY SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY: Poplar Bluff Regional Medical Center DEPARTMENT: Radiation Oncology

LOCATION: Poplar Bluff, Missouri

Analysis of the WIPE used to conduct a leak test on the sealed sources identified below was performed by gas or scintillation detection and reveals removable contamination was less than 0.005  $\mu\text{Ci}$ , unless otherwise noted, when compared against NIST traceable standards.

<p>Source: Cs-137, tubes (x2), 69 mCi (27.3 mgRaEq), 5.93, S/N CY804, CY805</p> <p>Date: 1.14.14 7.8.14</p> <p>Wipe No.: 6687 STORAGE</p> <p>MDA (<math>\mu\text{Ci}</math>): 2.0 E-4 2.0 E-4</p> <p>Net CPM: 2</p> <p>Net <math>\mu\text{Ci}</math>: &lt;MDA &lt;MDA</p> <p>CPM for 0.005 <math>\mu\text{Ci}</math>: 1,500 1,500</p> <p>Analyst: FB FB</p>	<p>Source: Cs-137, tubes (x4), 56 mCi (22.2 mgRaEq), 1.94, S/N CZ386, CZ387, CZ388, CZ398</p> <p>Date: 1.14.14 7.8.14</p> <p>Wipe No.: 6687 STORAGE</p> <p>MDA (<math>\mu\text{Ci}</math>): 2.0 E-4 2.0 E-4</p> <p>Net CPM: 2</p> <p>Net <math>\mu\text{Ci}</math>: &lt;MDA &lt;MDA</p> <p>CPM for 0.005 <math>\mu\text{Ci}</math>: 1,500 1,500</p> <p>Analyst: FB FB</p>
<p>Source: Cs-137, tubes (x2), 13.6 mCi (5.4 mgRaEq), 7.92, S/N CY148, CY186</p> <p>Date: 1.14.14 7.8.14</p> <p>Wipe No.: 6687 STORAGE</p> <p>MDA (<math>\mu\text{Ci}</math>): 2.0 E-4 2.0 E-4</p> <p>Net CPM: 2</p> <p>Net <math>\mu\text{Ci}</math>: &lt;MDA &lt;MDA</p> <p>CPM for 0.005 <math>\mu\text{Ci}</math>: 1,500 1,500</p> <p>Analyst: FB FB</p>	<p>Source: Cs-137, tubes (x6), 28 mCi (11.2 mgRaEq), 1993, S/N CY869, CY878, CY919, CY921, CZ301, CZ302</p> <p>Date: 1.14.14 7.8.14</p> <p>Wipe No.: 6687 STORAGE</p> <p>MDA (<math>\mu\text{Ci}</math>): 2.0 E-4 2.0 E-4</p> <p>Net CPM: 2</p> <p>Net <math>\mu\text{Ci}</math>: &lt;MDA &lt;MDA</p> <p>CPM for 0.005 <math>\mu\text{Ci}</math>: 1,500 1,500</p> <p>Analyst: FB FB</p>
<p>Source: Cs-137, tubes (x6), 40 mCi (15.9 mgRaEq), 1994, S/N CY948, CZ339, CZ344, CZ346, CZ347, CZ362</p> <p>Date: 1.14.14 7.8.14</p> <p>Wipe No.: 6687 STORAGE</p> <p>MDA (<math>\mu\text{Ci}</math>): 2.0 E-4 2.0 E-4</p> <p>Net CPM: 2</p> <p>Net <math>\mu\text{Ci}</math>: &lt;MDA &lt;MDA</p> <p>CPM for 0.005 <math>\mu\text{Ci}</math>: 1,500 1,500</p> <p>Analyst: FB FB</p>	

Performed by: AMP

Under Ohio License No. : 03220180001

RSO Signature

