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JENNIFER S. BROWN
jennifer.brown@kutakrock.com
(816) 502-4632

August 28, 2009

VIA FEDEX

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

Re: St. John's Regional Medical Center, Joplin, Missouri
License No. 24-0190-03
Change of Ownership

To Whom It May Concern:

Please accept this letter as notice of a change of ownership of St. John's Regional Medical Center, located at 2727 McClelland Blvd., Joplin, Missouri 64801 ("SJRMC"). SJRMC is the current holder of NRC Material License No. 24-0190-03, as amended from time to time ("License").

Mercy Health of Joplin, Inc., a Missouri nonprofit, public benefit corporation that is an affiliate of Sisters of Mercy Health System ("Mercy"), will acquire substantially all of the assets of SJRMC, which will trigger a change of ownership of the License. The anticipated closing date of this transaction is September 30, 2009, and we will inform you of any delays in the closing date. Please accept this letter as a request on behalf of SJRMC for the Nuclear Regulatory Commission's consent to such change of ownership relating to the License.

The d/b/a name of the facility will not change. However, the legal business name of the successor will be Mercy Health of Joplin, Inc. d/b/a St. John's Regional Medical Center, a Missouri nonprofit, public benefit corporation.

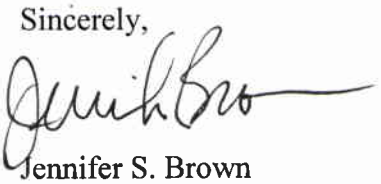
The personnel and duties associated with the use of nuclear materials at the facility will not change as a result of the change of ownership. No changes to the organization, location, facilities, equipment or procedures that relate to SJRMC's activities under the License are anticipated at this time. The facility's surveillance program is in compliance with the applicable regulations and will continue to be compliant upon transfer. The most recent NRC Consultant's Visit was May 2009. We have attached a copy of the Consultant's Report to this notice for your information. The facility will not be decommissioned as a result of this change of ownership.

RECEIVED AUG 3 1 2009

SJRMC had advised Mercy of its obligation to abide by all constraints, conditions, requirements and commitments of SJRMC with respect to the License, as amended. SJRMC has further advised Mercy of its obligation to apply to the Nuclear Regulatory Commission for amendment of the License to reflect this change of ownership immediately after the effective date. A representative of Mercy has countersigned this letter in order to confirm Mercy's understanding and intent to abide by these obligations.

Should you have any questions or require additional information, please do not hesitate to contact us. Thank you for your assistance.

Sincerely,



Jennifer S. Brown
Legal Counsel for St. John's Regional Medical Center

Jacquelynn Richmond
Legal Counsel for Mercy Health of Joplin, Inc. and Sisters of Mercy Health System

wer/mcb

cc: Jeff J. Miller, Esq.
Jacquelynn Richmond, Esq.
Timothy E. Gorman, Esq.

ASSOCIATES IN MEDICAL PHYSICS, LLC

Consultant's Report - Nuclear Medicine - Nuclear Cardiology-Radiation Oncology

NATIONAL OFFICE:
514 BRECKSVILLE RD., SUITE 105
RICHFIELD, OH 44286

FACILITY: St. John's Regional Medical Center **DATE OF VISIT:** 6/04 & 05/09

LOCATION: Joplin, Missouri

RSO: Jamie Walker, MS

PHYSICIAN(S): F. Corcoran; D. Myers; J. Pacheco-Gil; T. Ward; L. Ware

ADMINISTRATIVE DIRECTOR: John Mentgen, Vice President

DIRECTOR, RADIATION ONCOLOGY: Whit Sanders, RT., (R)(T)

MEDICAL PHYSICIST RADIATION ONCOLOGY: Jamie Walker, MS

DIRECTOR, MEDICAL IMAGING: Nora Cannon, RT

TECHNOLOGIST(S): Larry Cannon, CNMT, Chief; Debra Golden, CNMT, RT.; Justin Gilstrap, CNMT; Carey Reiter, CNMT; Matt Hulsey, CNMT; Beverly Davis, CNMT; Mindy Babbit

This report summarizes my second quarter visit. During this consulting visit, the radiation safety program was reviewed for compliance with regulatory and license requirements. Various instrumentation was evaluated for proper operation. The items evaluated are listed on the attached medical physics survey form. Noteworthy items are elaborated upon in the following paragraphs.

I. LICENSING

NRC issued Amendment No. 41 to the Materials License. This amendment added Drs. Price and Taggart and deleted Dr. Meoli as Authorized users on the license. Several additional physicians also need to be deleted from the license as Authorized Users. This was addressed with Jamie Walker, RSO, and information had been sent to NRC. When NRC issues Amendment No. 42, Drs. Hammerman, Moore, Ruiz and Rivas-Gotz should be deleted from the list of Authorized Users.

II. PERSONNEL DOSIMETRY

Personnel dosimetry records were reviewed for individuals working in Nuclear Medicine, Nuclear Cardiology, and Radiation Oncology. For the first quarter ending 4/14/09, all individuals had reported exposures that were below ALARA level 1.

III. ADMINISTRATIVE/EDUCATION

I reminded Larry, Jamie, and Carey that The Annual Review of the ALARA and Radiation Safety Program for CY 2008 should be completed since all exposure reports for CY 2008 are now on file.

Larry will have the technologists in Nuclear Medicine update their annual radiation safety training. The documents were left with Larry this audit.

V. RADIOPHARMACEUTICALS

Technologists confirmed there had been no problems with the administration of radiopharmaceuticals to patients since my last visit. Records showed each patient dose was assayed in the dose calibrator before administration. Administered doses were within ±20% of the prescribed dose. Scripts from Cardinal Health Nuclear Pharmacy now note that radiopharmaceuticals are dispensed under Dr. Ward (Authorized User).

VI. SEALED SOURCES

An inventory of sealed sources stored in Nuclear Medicine, Nuclear Cardiology, and Oncology was done during this visit. In addition to the inventory, sealed sources were leak tested. In Nuclear Cardiology two new Co-57 floods had been obtained and two old Co-57 floods had been shipped back to Isotope Products for disposal via Cardinal Health. Carey was reminded to contact Cardinal Health and request acknowledgment of receipt confirmations for these two Co-57 floods and for two old floods that were returned in March of 2008. The inventory was revised to reflect the receipt and disposal of the above-mentioned sources. Sealed sources in all Departments were accounted for. Leak test results for removable contamination (including the Sr-90 eye applicator source in storage) were below the regulatory limit of 0.005 µCi.

VII. SURVEYS

Radiation surveys and wipe test records were reviewed. Except for 4/02/09, required radiation surveys for ambient radiation exposures were done and on file. Written Directive material (Sm-153) was administered in the main Nuclear Medicine Department to a patient on 4/02/09. Weekly wipe test records (Nuclear Medicine) for removable contamination were not in the computer records for 3/30 to 4/04 and 4/05 to 4/11/09. Other weekly wipe test records were on file and results were below established action levels.

X. EQUIPMENT

Radiation survey instruments were checked for calibration and operation. The Ludlum 14C, S/N 164985, in Nuclear Medicine was calibrated on 5/12/09. Technologists were reminded that the other Ludlum 14C would be due for calibration on 9/18/09. Carey was

reminded that the Ludlum 14C, S/N 141981, would be due for calibration on 8/22/09. Both radiation survey instruments in Radiation Oncology were calibrated and operating properly.

The Capintec CRC-15W, dose calibrator and well counter in Nuclear Medicine and the Capintec CRC-12R, dose calibrator in Nuclear Cardiology were evaluated. Linearity tests were done on both units and the tests are attached in the MPS data pages of this report.

An efficiency test using an NIST Co-57 rod source was done on the Caprac well counter in Nuclear Cardiology. A copy of the test is in the front pocket of this report folder.

XI. RADIOPHARMACEUTICAL THERAPY

Several radiopharmaceutical therapy procedures (I-131 & Sm-153) were administered this past quarter. Written directives were on file for all of the therapy procedures. All patients were treated as outpatients.

A copy of instructions, given to the outpatient that received 104 mCi of I-131 on 4/18/08, could not be found. The technologist in charge of the therapy administration stated that verbal and written instructions were given to the patient and the patient indicated they could follow the instructions.

XII. BRACHYTHERAPY

Jamie, Brenda, and Kim stated there were no problems with the brachytherapy program. There was one Cs-137 implant and two Pd-103 seed implants done since my last visit. Written Directives are kept in the patient's Radiation Oncology Department Medical Record chart. Some old unused Pd-103 seeds were returned to the manufacture for disposal on 3/06/09.

For any questions on the content of this report or if you require any further information or assistance, please contact me at (636) 225-1474.

Sincerely,

Tom Dickinson
Licensed Medical Nuclear Physicist

St. John's Regional Medical Center
NRC # 24-01090-03
Nuclear Medicine Department
Joplin, Missouri

June 04, 2009

ator Linearity

Dose Calibrator	:	CRC - 15W	**Source**	:	Tc99m
Manufacturer	:	CAPINTEC	**Bkgrnd**	:	0.0000 mCi
Serial Number	:	170411	**Date**	:	06-04-09
Location	:	NUCLEAR HOTLAB	**Start**	:	12:28
Technologist	:	LARRY CANNON	**End**	:	12:32
Comment	:				

# Tubes	Reading-Bkgnd	(1) Present Factor	(2) Initial Factor	(3) Percent Ratio	Decay Time
1 0 Only	530.0000 mCi	1.0000	1.0000	100.0000	0.00
2 0 + A	168.0000 mCi	3.1548	3.1151	101.2719	9.87
3 0 + B	115.8000 mCi	4.5769	4.5195	101.2702	13.10
4 0 + AB	35.9000 mCi	14.7632	14.4161	102.4082	23.18
5 0 + C	13.6400 mCi	38.8563	38.0540	102.1085	31.61
6 0 + AC	4.3500 mCi	121.8391	118.2635	103.0234	41.46
7 0 + BC	3.0100 mCi	176.0797	170.9957	102.9732	44.66
8 0 + ABC	0.9520 mCi	556.7227	537.4150	103.5927	54.61

NOTES: (1) Each factor is the ratio of the reading-background for TUBE 0 only to the reading background for that entry.

(2) Values determined from the INITIAL calibration.

(3) % Ratio of ENTRIES: 100 x Col.(1) / Col.(2)
If any entry in this column differs from 100 by an amount greater than the licence allows see LINEATOR PROCEDURE instructions.

The Linearity Test has **PASSED.**

All readings have fallen within +/- 10.00 NRC / State Limit.

Test performed by : Tom Deckinger (AMP)

Reviewed by : _____

Comments : _____

Dose Calibrator linearity is required to be performed upon installation, quarterly after each repair and/or as otherwise specified by your radioactive materials licence.

St. John's Regional Medical Center
NRC # 24-01090-03
Nuclear Medicine Department
Joplin, Missouri

June 04, 2009

ator Linearity

Dose Calibrator	:	CRC - 15W	**Source**	:	Tc99m
Manufacturer	:	CAPINTEC	**Bkgrnd**	:	0.0000 mCi
Serial Number	:	170411	**Date**	:	06-04-09
Location	:	NUCLEAR HOTLAB	**Start**	:	12:19
Technologist	:	LARRY CANNON	**End**	:	12:20
Comment	:				

# Tubes	Reading-Bkgnd	(1) Present Factor	(2) Initial Factor	(3) Percent Ratio	Decay Time
1 0 Only	32.5000 mCi	1.0000	1.0000	100.0000	0.00
2 0 + A	10.9100 mCi	2.9789	3.1151	95.6271	9.87
3 0 + B	7.4800 mCi	4.3449	4.5195	96.1382	13.10
4 0 + AB	2.3600 mCi	13.7712	14.4161	95.5267	23.18
5 0 + C	0.8850 mCi	36.7232	38.0540	96.5029	31.61
6 0 + AC	0.2910 mCi	111.6838	118.2635	94.4365	41.46
7 0 + BC	0.2020 mCi	160.8911	170.9957	94.0907	44.66
8 0 + ABC	0.0655 mCi	496.1832	537.4150	92.3278	54.61

NOTES: (1) Each factor is the ratio of the reading-background for TUBE 0 only to the reading background for that entry.

(2) Values determined from the INITIAL calibration.

(3) % Ratio of ENTRIES: 100 x Col.(1) / Col.(2)
If any entry in this column differs from 100 by an amount greater than the licence allows see LINEATOR PROCEDURE instructions.

The Linearity Test has **PASSED.**

All readings have fallen within +/- 10.00 NRC / State Limit.

Test performed by : Tom Dechaineau (AMA)

Reviewed by : _____

Comments : _____

Dose Calibrator linearity is required to be performed upon installation, quarterly after each repair and/or as otherwise specified by your radioactive materials licence.

CardinalHealth

Lineator tm

DOSE CALIBRATOR LINEARITY TEST

Location: St. John's Regional Medical Center **Test Date/Time:** 06/05/2009 09:30

Next Due: [redacted]

NUCLEAR CARDIOLOGY LAB Previous factors: 03/09/2007 Standard

Instrument: DOSE CALIBRATOR Make: CAPINTEC Model: CRC-15R

Serial#: 152806 ID: Test Voltage: 149

Test Data:

Tube Configuration	Measured Activity	Background Activity	Net measured Activity	Units	Calculated Factor	/ Previous factor x 100 =	Accuracy%
00 Only	43.1	0	43.1	mCi	1.000	1.00	100.00
00 + A	14.5	0	14.5	mCi	2.993	2.97	99.31
00 + B	9.94	0	9.94	mCi	4.339	4.34	99.93
00 + AB	3.13	0	3.13	mCi	13.808	13.77	99.72
00 + C	1.17	0	1.17	mCi	36.617	36.84	100.60
00 + AC	0.377	0	0.377	mCi	111.222	114.32	102.79
00 + BC	0.267	0	0.267	mCi	161.011	161.42	100.26
00 + ABC	0.0865	0	0.0865	mCi	493.363	498.27	100.99

Reference Value = First Tube Accuracy % = (Calculated Factor / Stored Factor) x 100

Calibration Factor = 1/(Tube reading/Reference value)Accuracy % should not deviate from 100% by more than 5% error.

Comments and Recommendations:

Passed linearity test. TWD

Performed by: Tom Dickinson (APM) Radiation safety officer:

MEDICAL PHYSICS SURVEY
PERSONNEL DOSIMETRY SUMMARY

FACILITY: St. John's Regional Medical Center LOCATION: Joplin, Missouri

DATE: 3/06/08

PERIOD: Annual CY 2007

Series: NM

ID #	NAME	Deep DDE	Eye LDE	Shallow SDE	Extremity SDE
304	Golden, Debra	421	429	412	4,140
308	Cannon, L.	513*	542	551	4,020
901	Gilstrap Justin	635*	635	630	2,668
1166	Hulsey, Matt	M	M	M	M
1200	Suhrie, Janell	337	367	369	—
1228	Bunn, Greg	28	28	25	280
1246	Babbitt, Mindy	36	36	36	100
	Series HCC	Deep DDE	Eye LDE	Shallow SDE	Extremity SDE
028	Beverly Davis	443	469	495	5,420*
1187	Norma Stephenson	311	325	317	570
1160	Carey Reiter	359	31	347	3,060
035	Christi Gideon	1	1	M	M
037	Jones, Gary	32	33	27	—
038	Johnson, Kimberly	195	222	222	440
235	Chicoine, J.	85	86	77	60
	Series XRO	Deep DDE	Eye LDE	Shallow SDE	Extremity SDE
647	Pacheco, J.	M	M	1	M
649	Boyd , B.	M	M	M	M
651	Meyers, D.	8	10	15	2,570
653	Miller, K.	M	M	M	M
657	Stelts, M.	3	3	2	M
1047	Walker, J.	M	M	M	M

Current NVLAP Approved Dosimetry Badge Vendor: R. S. Landauer

Facility ALARA Exposure Action Level:

	Level 1	Level 2
Whole Body	125 mrem	375 mrem
Extremity or skin	1,250 mrem	3,750 mrem
Lens of eye	375 mrem	1,125 mrem

* See Report 2009

MEDICAL PHYSICS SURVEY
PERSONNEL DOSIMETRY SUMMARY

FACILITY: St. John's Regional Medical Center LOCATION: Joplin, Missouri

DATE: 3/05/09

PERIOD: Annual CY 2008

Series: NM

ID #	NAME	Deep DDE	Eye LDE	Shallow SDE	Extremity SDE
304	Golden, Debra	334	363	355	3,660
308	Cannon, L.	373	400	397	2,490
901	Gilstrap Justin	429	428	420	982 Est
1166	Hulsey, Matt	1	M	M	M
1200	Suhrie, Janell	244	279	281	—
1226	Bunn, Greg	26	24	28	70
1246	Bebbitt, Mindy	2	1	M	M
	Series HCC	Deep DDE	Eye LDE	Shallow SDE	Extremity SDE
011	Cupp, Brenda	69 Est	73 Est	66Est	—
028	Davis, Beverly	369 Est	406 Est	416 Est	4,910 Est
035	Gideon, Christi	M Est	M Est	M Est	M Est
235	Chicoine, J.	192 Est	202 Est	195 Est	310 Est
782	Moser, Susan	344 Est	110 Est	339 Est	502 Est
1160	Reiter, Carey	399 Est	236 Est	397 Est	3,415 Est
1187	Stephenson, Norma	322 Est	324 308	308 Est	666 Est
	Series XRO	Deep DDE	Eye LDE	Shallow SDE	Extremity SDE
647	Pacheco, J.	30	31	41	M
649	Boyd , B.	M	M	M	M
651	Meyers, D.	M	M	2	500
653	Miller, K.	M	M	M	M
657	Stelts, M.	15	16	20	40
1047	Walker, J.	M	M	3	M

Current NVLAP Approved Dosimetry Badge Vendor: R. S. Landauer

Facility ALARA Exposure Action Level:

	Level 1	Level 2
Whole Body	125 mrem	375 mrem
Extremity or skin	1,250 mrem	3,750 mrem
Lens of eye	375 mrem	1,125 mrem

MEDICAL PHYSICS SURVEY
PERSONNEL DOSIMETRY SUMMARY

FACILITY: St. John's Regional Medical Center LOCATION: Joplin, Missouri

	DATE: Series: NM	6/04/09		6/04/09		6/04/09		6/04/09	
	PERIOD:	1/15 - 2/14/09		2/15 - 3/14/09		3/15 - 4/14/09		1st Quarter	
ID #	NAME	DDE	TLD	DDE	TLD	DDE	TLD	DDE	TLD
304	Golden, Debra	26	480	22	290	38	390	86	1,160
308	Cannon, Larry	31	150	25	110	18	120	74	380
901	Gilstrap, Justin	37	50	36	120	38	40	111	210
1166	Hulsey, Matt	M	M	M	M	M	M	M	M
1200	Suhrie, Janell	20	—	17	—	9	—	46	—
1226	Bunn, Greg	M	M	M	M	M	M	M	M
1246	Babbitt, Mindy	M	M	M	M	M	M	M	M
Series HCC									
011	Cupp, Brenda	5	—	4	—				
026	Davis, Beverly	5	50	5	150				
035	Gideon, Christi	Unused		Unused					
235	Chicoine, J.	26	50	37	70				
782	Moser, Susan	23	60	31	100				
1160	Reiter, Carey	43	✡	51	330				
1187	Stephenson, Norma	13	M	3	M				

Series: XRO		1/15 - 4/14/09 1st Quarter	
		Deep DDE	Extremity SDE
647	Pacheco, J.	M	M
649	Boyd, B.	Absent	
651	Meyers, D.	M	M
653	Miller, K.	M	M
657	Stelts, M.	6	M
1047	Walker, J.	M	M

Nuclear Medicine (NM) & Heart Center (HCC): Monthly
Radiation Oncology (XRO): Quarterly
✡ ; No reported exposure, late or lost monitor
✡ ___ Est; No reported exposure, an estimate was calculated.

Current NVLAP Approved Dosimetry Badge Vendor: R. S. Landauer

Facility ALARA Exposure Action Level:

	Level 1	Level 2
Whole Body	125 mrem	375 mrem
Extremity or skin	1,250 mrem	3,750 mrem
Lens of eye	375 mrem	1,125 mrem

MEDICAL PHYSICS SURVEY
PERSONNEL DOSIMETRY SUMMARY

FACILITY: St. John's Regional Medical Center LOCATION: Joplin, Missouri

DATE: Series: NM 6/04/09

PERIOD: 4/15 - 5/14/09 5/15 - 6/14/09 6/15 - 7/14/09 2nd Quarter

ID #	NAME	DDE	TLD	DDE	TLD	DDE	TLD	DDE	TLD
304	Golden, Debra	34	290						
308	Cannon, Larry	19	100						
901	Gilstrap, Justin	30	130						
1166	Hulsey, Matt	M	M						
1200	Suhrie, Janell	8	—						
1226	Bunn, Greg	M	M						
1246	Babbitt, Mindy	M	M						

Series HCC

ID #	NAME	DDE	TLD	DDE	TLD	DDE	TLD	DDE	TLD
011	Cupp, Brenda								
028	Davis, Beverly								
035	Gideon, Christi								
235	Chicoine, J.								
782	Moser, Susan								
1160	Reiter, Carey								
1187	Stephenson, Norma								

Series: XRO 4/15 - 7/14/09 2nd Quarter

ID #	NAME	DDE	TLD
647	Pacheco, J.		
649	Boyd, B.		
651	Meyers, D.		
653	Miller, K.		
657	Stelts, M.		
1047	Walker, J.		

Nuclear Medicine (NM) & Heart Center (HCC): Monthly
Radiation Oncology (XRO): Quarterly
☼ ; No reported exposure, late or lost monitor
☼ ___ Est; No reported exposure, an estimate was calculated.

Current NVLAP Approved Dosimetry Badge Vendor: R. S. Landauer

Facility ALARA Exposure Action Level:

	Level 1	Level 2
Whole Body	125 mrem	375 mrem
Extremity or skin	1,250 mrem	3,750 mrem
Lens of eye	375 mrem	1,125 mrem

MEDICAL PHYSICS SURVEY
SURVEY METER EVALUATION

FACILITY: St. John's Regional Medical Center LOCATION: Joplin, Missouri

Type: Mfg.:	G-M (EW) Ludlum (Nuclear Med)	G-M (PC) Ludlum (Nuclear Med)	G-M Ludlum (Heart Lab)	Ion Victoreen (Oncology)	G-M (EW) Ludlum (Oncology)
Model No.: Serial No.:	14C 30503	14C 164985	14C 141981	450P 2569	14C 173000
Ck Source & Geometry	Integral end window probe cap off	Integral Cs-137 1μCi, pancake probe cap off	Integral	10 uCi Cs-137 disc on white dot	Integral Cs-137 10μCi, label down end window cap off
Calibrated Calibrated Calibrated	9/22/06 9/17/07 9/18/08	5/04/07 5/12/08 5/12/09	8/23/06 8/29/07 8/22/08	10/10/06 Suntrac 9/28/07 Suntrac 10/10/08 Suntrac	01/03/07 by Microtec 01/11/08 by Microtec 12/29/08 by Microtec
Date	Batt..mr/hr..Int	Batt..mr/hr..Int	Batt..mr/hr..Int	Batt..mr/hr	Batt..cpm..Int
6/05 - 06/08	OK-1.0-OK	OK-6.0-OK Was calibrated	OK-5.9-OK* Calibration due 8/29/08	OK-0.66	OK-12,400-OK
9/11 - 12/08	@ Calibration lab	OK-5.9-OK	OK-5.9-OK Was calibrated	OK-0.54* Calibration due 9/28/08	OK-12,311-OK
12/4 - 5/06	OK-0,95-OK Was calibrated	OK-6.0-OK	OK-6.0-OK	OK-0.62 Was calibrated	OK-12,141-OK* Calibration due 01/11/09
3/05 - 06/09	OK-1.1-OK	OK-6.0-OK* Calibration due 5/12/09	OK-6.0-OK	OK-0.58	OK-12,082-OK Was calibrated
6/04&5/09	OK-1.0-OK	OK-5.5-OK Was calibrated	OK-5.9-OK* Calibration due 8/22/09	OK-0.55	OK-11,845-OK

(PC) Pancake
(EW) End window

* See Report 2009

MEDICAL PHYSICS SURVEY
DOSE CALIBRATOR EVALUATION
ACCURACY TEST

FACILITY: St. John's Regional Medical Center MODEL No.: Capintec CRC 15-W

LOCATION: Joplin, MO SERIAL No.: 170411

Date	Cs-137 (220) Cal/Disp/% (µCi)	Co-57 (112) Cal/Disp/% (µCi)	Sealed Source Set Used	Identity	Test(V) Data Check	Zero(mV) Bkg(µCi)	Linearity
6/05/06	—	—	—	—	157.4 OK	-0.05 0.38	New calibration factors for 10 cc vial
9/11/06	—	—	—	—	157.3 OK	-0.05 0.31	678mCi-190µCi 9/11/06
12/04/06	—	—	—	—	157.1 OK	-0.05 0.32	701mCi-23µCi 12/04/06
3/05/09	115/117/+1.7	346/338/-2.3	SJRMC NUC	TWD	157.4 OK	-0.05 0.38	759mCi - 71µCi 3/05/09
6/04/09	—	—	—	—	157.4 OK	-0.05 0.38	530mCi-66µCi 6/04/09

SJRMC-NUC Cs-137, 203 µCi, 5/07/02, DuPont, Model # NES-356, S/N 3560584A-51; Co-57, 5.281 mCi, 4/01/06, Cardinal Health, Model # RV-057-5M, S/N 1145-51-3 (Co-57 vial from Cardinal Health Nuclear Pharmacy)

Date accuracy test last performed: 3/05/09

MEDICAL PHYSICS SURVEY
DOSE CALIBRATION EVALUATION
CONSTANCY READINGS

FACILITY: St. John's Regional Medical Center MODEL No.: Capintec CRC 15-W

LOCATION: Joplin, MO SERIAL No.: 170411

Date	Tc-99m (080) µCi	Ga-67 (100) µCi	I-131 (151) µCi	Tl-201 (205) µCi	Cs-137 (220) µCi	I-123 (277) µCi	In-111 (303) µCi	I-123 (350) Calib # µCi	F-18 (439) µCi	Sm-153 (254) µCi	Sr-89 (574) µCi
6/5/08	220	196	153	125	118	100	93.0	83.0	88.5	106	54.6
9/11/08	218	194	153	124	118	100	92.7	82.3	88.7	106	54.3
12/04/08	217	194	152	123	117	99.1	92.4	82.2	88.3	106	54.0
3/05/09	216	193	151	124	117	96.0	91.5	81.5	88.0	105	53.7
6/04/09	215	192	150	122	116	97.8	91.0	81.4	85.8	104	53.4

Source: Cs-137, Vial, DuPont Activity: 203 µCi

Model: NES-356, S/N 3560584A-51 Calibration: 5/7/02

* See Report 2009

MEDICAL PHYSICS SURVEY
DOSE CALIBRATOR EVALUATION
ACCURACY TEST

FACILITY: St. John's Regional Medical Center - Nuclear Cardiology Lab

MODEL No.: CRC-15R

LOCATION: Joplin, MO

SERIAL No.: 152806

Date	Cs-137 (220) Cal/Disp/% (µCi)	Co-57 (112) Cal/Disp/% (µCi)	Sealed Source Set Used	Identity	Test/ Data Check	Zero/ Bkg	Linearity Test
6/06/08	—/—/—	—/—/—	—	—	149.0V OK	-0.05mV 0.30µCi	42mCi-86µCi 6/06/08
9/12/08	—/—/—	—/—/—	—	—	149.9V OK	-0.05mV 0.58µCi	43mCi-86µCi 9/12/08
12/05/08	—/—/—	—/—/—	—	—	149.9V OK	-0.05mV 0.28µCi	51mCi-105µCi 12/05/08
3/05/09	164/162/-1.2	346/336/-3.2	SJRMC CARDIO	TWD	149.4V OK	-0.05mV 0.36µCi	36mCi-73µCi 3/05/09
6/05/09	—/—/—	—/—/—	—	—	149.1V OK	-0.05mV 0.42µCi	43mCi-87µCi 6/05/09

SJRMC-CARDIO Cs-137, 215 µCi, 7/7/97, DuPont, Model # NES356, S/N S356035-093; Co-57, 5.281 mCi, 4/01/06, Cardinal Health, Model # RV-057-5M, S/N 1145-51-3 (Co-57 vial from Cardinal Health Nuclear Pharmacy)

Date accuracy test last performed: 3/05/09

MEDICAL PHYSICS SURVEY
DOSE CALIBRATION EVALUATION
CONSTANCY READINGS

FACILITY:	St. John's Regional Medical Center - Nuclear Cardiology Lab	MODEL No.:	CRC-15R
LOCATION:	Joplin, MO	SERIAL No.:	152806

	Tc-99m (080)	Tl-201 (205)	Cs-137 (220)
	µCi	µCi	µCi
Date			
6/06/08	306	174	166
9/12/08	303	173	164
12/05/08	301	171	163
3/05/09	298	170	162
6/05/09	296	170	162

Source:	Cs-137, DuPont, S/N S356035-093	Activity:	215µCi
Model:	NES 356	Calibration:	7/7/97

MEDICAL PHYSICS SURVEY
SCINTILLATION WELL EVALUATION

FACILITY: St. John's Regional Medical Center MODEL No.: Capintec CRC-15W, S/N 170411

LOCATION: Joplin, Missouri ROOM No.: Hot Lab

Date	Energy Deviation%	Gain	Ch1/(Ch4+Ch5)	Cs-137 calculated nCi	Cs-137 measured nCi	Deviation %	Bkg cpm
3/06/08	-0.2	0881	0.89	435.1	435.5	0.1	225
6/05/08	0.9	0897	0.86	432.6	428.6	-0.9	219
9/11/08	-0.3	0897	0.87	430.0	424.0	-1.4	213
12/04/08	-0.3	0904	0.86	427.7	422.5	-1.2	165
6/04/09	-0.9	0920	0.87	422.8	417.5	-1.3	204

Cs-137, Rod, 500nC , 3/1/02, Isotope Products Labs, S/N 851-31.
Efficiency: Co-57, 85%, 12/05/07; entered a CF of 1.25, which is equal to 80% efficiency.

MEDICAL PHYSICS SURVEY
WELL COUNTER EVALUATION

FACILITY: St. John's Regional Medical Center - Nuclear Cardiology Lab

MODEL No.: Caprac Wipe Test Counter S/N 000684

LOCATION: Joplin, MO

ROOM No.: Hot Lab

DATE	Background (cpm)	Energy Deviation	Gain	Channel Ratio	Cs Calculated	Cs Measured	Activity Deviation
6/06/08	496	-0.2%	011	0.83	391.4 nCi	390.7 nCi	-0.2%
9/11/08	649	-0.4%	011	0.84	389.4 nCi	389.9 nCi	0.0%
12/05/08 Did a manual recalibration. Put gain back to 128.	621	0.1%	128	0.81	387.0 nCi	385.8 nCi	-0.3%
3/06/09	487	0.0%	128	0.83	384.7 nCi	387.9 nCi	0.8%
6/05/09	809	-0.2%	128	0.82	382.5 nCi	383.1 nCi	0.2%

Technique:
Using Caprac Channels 4 & 5, General counting: Cs-137, 0.5 µCi, 11/1/97, Isotope Products Laboratory, Mod# GF-0008, S/N 567042.

Efficiency: Co-57 85%, C.F.= 1.18, LLD = 88 dpm, MDA = 3.96 E-5µCi, Caprac, 6/05/09.

MEDICAL PHYSICS SURVEY
SCINTILLATION UPTAKE EVALUATION

FACILITY: St. John's Regional Medical Center MODEL No.: Captus 600 Capintec S/N 600356

LOCATION: Joplin, Missouri ROOM No.: #1

Date	HV Reference	Fine Gain	FWHM	Diagnostic Test	Energy Deviation	Cs-137 Calc	Cs-137 Meas	Activity Deviation	Chi Square
03/08/07	174	041	7.8%	OK	-0.2%	419 nCi	426 nCi	1.7%	3.95
03/06/08	126	096	8.0%	OK	0.5%	409 nCi	412 nCi	0.7%	6.88
9/11/08	126	058	7.7%	OK	0.4%	404 nCi	393 nCi	-2.7%	13.14
12/04/08	126	058	7.6%	OK	0.2%	402 nCi	396 nCi	-1.8%	15.59
6/04/09	126	029	7.9%	OK	0.3%	397 nCi	404 nCi	1.8%	12.53

(A) Cs-137, Rod, 500 ncl, 3/1/02, Isotope Products Labs, S/N 851-31.
Chi²: 10 samples - 95% probability = 3.33 to 16.9.

MEDICAL PHYSICS SURVEY
AMBIENT RADIATION EXPOSURE SURVEYS
NUCLEAR MEDICINE

FACILITY: St. John's Regional Medical Center LOCATION: Joplin, Missouri

LOCATION OF SURVEY AND RESULTS IN MREM/HR

DATE	SURVEY METER (Serial Number)	A	B	C	D	E	F	SURVEYOR
5/05/08	164985	0.06	0.2	0.03	0.02	0.02	0.02	TWD
9/11/08	164985	0.06	0.2	0.03	0.02	0.02	0.02	TWD
12/04/08	164985	0.05	0.17	0.02	0.02	0.02	0.02	TWD
3/05/09	164985	0.03	0.3 Tc in drawer	0.02	0.02	0.02	0.02	TWD
6/04/09	164985	0.05	0.25 Sm-153 in drawer above	0.02	0.02	0.02	0.02	TWD

LOCATION KEY: Nuclear Medicine

A. Hood
B. Sealed source long-term storage drawer
C. Flood drawer
D. Background
E. Injection chair in hot lab
F. Bathroom Wall

MEDICAL PHYSICS SURVEY
AMBIENT RADIATION EXPOSURE SURVEYS
NUCLEAR CARDIOLOGY LAB

FACILITY: St. John's Regional Medical Center - Nuclear Cardiology Lab LOCATION: Joplin, MO

LOCATION OF SURVEY AND RESULTS IN MREM/HR

DATE	SURVEY METER (Serial Number)	A	B	C	D	E	SURVEYOR
6/06/08	141981	0.7	0.02	0.02	0.02	0.02	TWD
9/12/08	141981	0.8	0.02	Patients in room	0.02	0.02	TWD
12/05/08	141981	0.7	0.02	0.02	0.02	0.02	TWD
3/06/09	141981	0.5	0.4* RAM in trash	0.02	0.02	0.02	TWD
6/05/09	141981	0.5	0.02	0.02	0.02	0.02	TWD

LOCATION KEY:

A. Cs-137 and Co-57 Storage area
B. Hallway wall outside of hot lab
C. Treadmill/imaging room
D. Background
E. Injection chair in Hot Lab

MEDICAL PHYSICS SURVEY
AMBIENT RADIATION EXPOSURE SURVEYS
RADIATION ONCOLOGY

FACILITY: St. John's Regional Medical Center LOCATION: Joplin, Missouri

LOCATION OF SURVEY AND RESULTS IN MR/HR

DATE	SURVEY METER (Serial Number)	A	B	C	D	SURVEYOR
6/05/08	2569	0.45	0.30	3.5	0.02	TWD
9/11/08	2569	0.46	0.28	3.4	0.02	TWD
12/04/08	2569	0.42	0.28	3.3	0.02	TWD
3/05/09	2569	0.39	0.23	3.4	0.02	TWD
6/04/09	2569	0.37	0.25	3.4	0.02	TWD

LOCATION KEY: Radiation Oncology Department

A. Front of Safe
B. Sides of Safe
C. Sr-90 Eye Applicator, (1) as of 3/21/2000 450P positioned on top of the eye applicator box
D. Exam Room Wall adj. to safe

MEDICAL PHYSICS SURVEY
SEALED SOURCE INVENTORY

FACILITY: St. John's Regional Medical Center DEPARTMENT: Nuclear Medicine

LOCATION: Joplin, Missouri

Nuclide:	Cs-137	Various	Cs-137	Cs-137	Co-57	Co-57	
Type:	Vial E	See Below Box Contents	Rod	Ck Source	Flex Ruler	Flood	
Location:	Hot Lab	Hot Lab Storage Drawer	Hot Lab/ uptake unit	Hot Lab	Hot Lab	Hot Lab	
Assay: (Date)	203uCi 5/29/84		0.112 µCi 5/9/89	10 µCi 3/92	460µCi 4/1/98	15 mCi 02/01/06	
Mgr:	NEN		NEN	Source	NAS	Isotope Products	
Serial No.:	3560584 A-61		N/A	0690	W09013-24	1281-126	
Model:	NES-356				MED3501	PF24R-057-15M	
DATE							Inventoried by:
6/05/08	X	X	X	X	X	X	TWD
9/11/08	X	X	X	X	X	X	TWD
12/04/08	X	X	X	X	X	X	TWD
3/05/09	X	X	X	X	X	X	TWD
6/04/09	X	X	X	X	X	X	TWD

Contents of box in storage drawer:
1. Cs-137, Liquid Vial, 12.6 µCi, 7/1/76, Squibb, Mod# N/A, S/N 8834DD-2
2. Cs-137, Vial, 108 µCi, 8/23/77, Capintec, Mod# NES-319, S/N 319-074-31
3. Co-60, Vial, 95 µCi, 6/13/77, Capintec, Mod# NES-294, S/N 294-281-13
4. Co-57, Vial, 4.9 mCi, 6/26/84, NEN, Mod# NES-206, S/N 206068B-39
5. Co-57, Vial, 6.1 mCi, 2/12/82, NEN, Mod# NES-206, S/N 2060282A-25
6. Cs-137, dosimeter calib, 90µCi, 5/31/80, Victoreen, S/N 464

X - INDICATES SOURCE INVENTORIED
1 - Source not inventoried/could not locate
2 - Source in long-term decay storage area
3 - Returned to manufacturer
(B) Long-term storage.
(C) Decayed to background; disposed.

MEDICAL PHYSICS SURVEY
SEALED SOURCE INVENTORY

FACILITY: St. John's Regional Medical Center DEPARTMENT: Nuclear Medicine

LOCATION: Joplin, Missouri

Nuclide:	Co-57	Ce-137	Co-57	Co-57	Co-57	
Type:	Vial E	Rod	Flood	Flood	Flood	
Location:	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab	
Assay: (Date)	5.908 mCi 4/1/02	500 nCi 3/1/02	15 mCi 10/1/02	15 mCi 7/1/04	15 mCi 5/1/08	
Mgr:	N. Ame. Sci.	Isotope Products	Syncor	Isotope Products	Isotope Products	
Serial No.:	17734	851-31	937-136	1069-013	1183-099	
Model:	MED3550	GF-0008	SFL24R-057-15M	PF24R-057-15M	PF24R-057-15M	
DATE						Inventoried by:
6/05/08	X	X	X	X	X	TWD
9/11/08	X	X	X	X	X	TWD
12/04/08	X	X	X	X	X	TWD
3/05/09	X	X	X	X	X	TWD
6/04/09	X	X	X	X	X	TWD

X - INDICATES SOURCE INVENTORIED
1 - Source not inventoried/could not locate
2 - Source in long-term decay storage area
3 - Returned to manufacturer
(B) Long-term storage.
(C) Decayed to background; disposed.

MEDICAL PHYSICS SURVEY
SEALED SOURCE INVENTORY

FACILITY: St. John's Regional Medical Center - Nuclear Cardiology Lab

DEPARTMENT: Nuclear Cardiology

LOCATION: Joplin, MO

Nuclide:	Cs-137	Cs-137	Co-57	Co-57	Co-57	
Type:	Vial	Rod (Exempt)	Flood	Flood	Flood	
Location:	Hot Lab	Hot Lab	Hot Lab	Hot Lab	Hot Lab	
Assay: (Date)	215µCi 7/7/97	0.5µCi 11/1/97	10 mCi 6/1/06	10 mCi 3/01/08	10 mCi 3/01/08	
Mgr:	DuPont	I.P.L.	Isotope Products	Isotope Products	Isotope Products	
Serial No.:	S356035-093	567042	1121-182	1281-155	1283-026	
Model:	NES356	GF-0006	PF24R-057-10M	PF16R-057-10M	PF16R-057-10M	
Date						Inventoried by:
6/06/08	X	X	X	X New	X New	TWD
9/12/08	X	X	X	X	X	TWD
12/05/08	X	X	X	X	X	TWD
3/06/09	X	X	X	X	X	TWD
6/05/09	X	X	X	(A) Shipped to IP via Cardinal Health	(A) Shipped to IP via Cardinal Health	TWD

X - INDICATES SOURCE INVENTORIED
A - Returned to manufacturer or radiopharmacy

MEDICAL PHYSICS SURVEY
SEALED SOURCE INVENTORY

FACILITY: St. John's Regional Medical Center - Nuclear Cardiology Lab

DEPARTMENT: Nuclear Cardiology

LOCATION: Joplin, MO

Nuclide:	Co-57	Co-57	
Type:	Flood	Flood	
Location:	Hot Lab	Hot Lab	
Assay: (Date)	10 mCi 6/01/09	10 mCi 6/01/09	
Mgr:	Isotope Products	Isotope Products	
Serial No.:	1374-062	1374-063	
Model:	PF16R-057-10M	PF16R-057-10M	
Date			Inventoried by:
6/05/09	X New	X New	TWD

X - INDICATES SOURCE INVENTORIED
A - Returned to manufacturer or radiopharmacy

MEDICAL PHYSICS SURVEY
SEALED SOURCE INVENTORY

FACILITY: St. John's Regional Medical Center DEPARTMENT: Oncology

LOCATION: Joplin, Missouri

Nuclide:	Cs-137	Cs-137	Cs-137	Cs-137	Cs-137	Cs-137 (x2)	Sr-90 (A)	Co-60 (Exempt)	Cs-137 (Exempt)	
Type:	Tubes (4)	Tubes (6)	Tubes (3)	Tubes (2)	Tubes (x2)	Disc	Eye App.	Cal. tube	Cal. Tube	
Location:	Cs Storage Room	Cs Storage Room	Cs Storage Room	Cs Storage Room	Cs Storage Room	Cs Storage Room	Cs Storage Room	Cs Storage Room	Cs Storage Room	
Assay: (Date)	4 x 10 1/9/81 Green	6 x 15 1/9/81 Yellow	3 x 20 1/9/81 Orange	21.9 mgRaEq 4/28/92, 9/29/92 Blue	25 mgRaeq 11/3/93 White	10µCi	125mCi 10/84	0.102µCi 4/29/82	0.102µCi 12/8/81	
Mgr:	3 M	3 M	3 M	Medl + Physics	Medl Physics	Atomic Products	Nuc. Assoc.	NEN	NEN	
Serial No.:	3765 3770 3771 3783	2157 2168 2176 2190 2193 2212	1679 1684 1698	CZ210 CY258	CZ248 CZ266	N/A	N/A	N/A	N/A	
Model:	6D6C-CA	6D6C-CA	6D6C-CA	CDCT1	CDC.T1		N/A	N/A	N/A	
Date										Inventoried by:
6/05/08	X	X	X	X	X	X	X	X	X	TWD
9/11/08	X	X	X	X	X	X	X	X	X	TWD
12/04/08	X	X	X	X	X	X	X	X	X	TWD
3/05/09	X	X	X	X	X	X	X	X	X	TWD
6/04/09	X	X	X	X	X	X	X	X	X	TWD

X - INDICATES SOURCE INVENTORIED
1 - Source not inventoried/could not locate
2 - Source in long-term decay storage area
3 - Returned to manufacturer

(A) Sr-90 Eye applicator inventoried by exposure from box.
(B) Long-term storage

MEDICAL PHYSICS SURVEY
SEALED SOURCE INVENTORY

FACILITY: St. John's Regional Medical Center DEPARTMENT: Oncology

LOCATION: Joplin, Missouri

Nuclide:	Cs-137	Cs-137 (Exempt)	Sr-90 (Exempt)	Cs-137 (x2) (Exempt)	I-129 (x3)	
Type:	Pocket Dosimeter Calibrator	Disk	Ampule Liquid	2 Rod sources	3 Rod sources	
Location:	Cs Storage Room	Cs Storage Room	Cs Storage Room	Cs Storage Room	Cs Storage Room	
Assay: (Date)	N/A	10µCi 2/01	0.094µCi 4/22/82	<1 µCi each N/A	<.1 µCi each N/A	
Mgr:	N/A	Spectrum Techniques	NEN	Picker	Curtis Nuclear	
Serial No.:	N/A	1611	0705042282A	N/A	N/A	
Model:	N/A	N/A	NES 0705	658200	7243	
DATE						Inventoried by:
6/06/08	X	X	X	X	X	TWD
9/11/08	X	X	X	X	X	TWD
12/04/08	X	X	X	X	X	TWD
3/05/09	X	X	X	X	X	TWD
6/04/09	X	X	X	X	X	TWD

X - INDICATES SOURCE INVENTORIED
1 - Source not inventoried/could not locate
2 - Source in long-term decay storage area
3 - Returned to manufacturer

MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY:	St. John's Regional Medical Center	DEPARTMENT:	Nuclear Medicine
LOCATION:	Joplin, Missouri	ATTENTION:	Jamie Walker, MS, RSO

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 µCi, unless otherwise noted, when compared against NIST traceable standards.

Source: Cs-137 Vial E, 203 uCi, 5/29/84, NEN, Mod. #NES-356, S/N 3560584A-51. (NM)

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	4869	6863	9106	1119
MDA (µCi):	2 E-04	2 E-04	2 E-04	2 E-04
Net CPM:	11	4	14	7
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi:	1,500	1,500	1,500	1,500
Analyst:	LB	LB	LB	LB

Source: Co-57, Flood, 15 mCi, 7/1/04, Isotope Products, Mod# PF24R-057-15M, S/N 1069-013.

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	4870	6864	9107	1120
MDA (µCi):	3 E-05	3 E-05	3 E-05	3 E-05
Net CPM:	27	3	6	5
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi:	10,160	10,160	10,160	10,160
Analyst:	LB	LB	LB	LB

Source: Co-57, Flood, 15 mCi, 5/01/06, Isotope Products, Mod# PF24R-057-15M, S/N 1183-099.

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	4871	6865	9108	1121
MDA (µCi):	3 E-05	3 E-05	3 E-05	3 E-05
Net CPM:	27	3	6	5
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi:	10,160	10,160	10,160	10,160
Analyst:	LB	LB	LB	LB

Performed by: Associates in Medical Physics, LLC Under License No: 34-26645-02

MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY:	St. John's Regional Medical Center	DEPARTMENT:	Nuclear Medicine
LOCATION:	Joplin, Missouri	ATTENTION:	Jamie Walker, MS, RSO

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 µCi, unless otherwise noted, when compared against NIST traceable standards.

Source: Co-57, Flood, 15 mCi, 10/1/02, Syncor, Model # SFL24R-057-15M, S/N 937-136.

Date:	12/14/06 TWD	6/14/07 TWD	12/05/07 TWD	6/05/08
Wipe No.:	1013	3046	4872	Activity is less
MDA (µCi):	3 E -05	3 E -05	3 E -05	than 100 µCi.
Net CPM:	14	0	27	Leak test is
Net µCi:	< MDA	< MDA	< MDA	no longer
CPM for 0.005 µCi:	10,160	10,160	10,160	required.
Analyst:	AY	AY	LB	

Source: Co-57, Flood, 15 mCi, 02/01/08, Isotope Products, Mod# PF24R-057-15M, S/N 1281-126.

Date:	3/06/08 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	Initial leak test	6866	9109	1122
MDA (µCi):	was done by	3 E-05	3 E-05	3 E-05
Net CPM:	IP on 01/08/08.	3	8	5
Net µCi:	< 0.005 µCi	< MDA	< MDA	< MDA
CPM for 0.005 µCi:		10,160	10,160	10,160
Analyst:	IP	LB	LB	LB

Performed by: Associates in Medical Physics, LLC Under License No: 34-26645-02

MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY:	St. John's Regional Medical Center - Nuclear Cardiology Lab	DEPARTMENT:	Nuclear Cardiology
LOCATION:	Joplin, MO	ATTENTION:	Jamie Walker, MS (RSO)

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 µCi, unless otherwise noted, when compared against NIST traceable standards.

Source: Cs-137, Vial, 215 µCi, 7/7/97, DuPont, Mod# NES356, S/N S356035-093.

Date:	12/06/07 TWD	6/06/08 TWD	12/05/08 TWD	6/05/09 TWD
Wipe No.:	4874	6857	9110	1123
MDA (µCi):	2 E-04	2 E-04	2 E-04	2 E-04
Net CPM:	4	4	14	7
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi	1,500	1,500	1,500	1,500
Analyst:	LB	LB	LB	LB

Source: Co-57, Flood, 10 mCi, 6/1/05, Isotope Produces Labs, Model # PF24R-057-10M, S/N 1121-182.

Date:	12/06/07 TWD	6/06/08 TWD	12/05/08 TWD	6/05/09 TWD
Wipe No.:	4875	6858	9111	1124
MDA (µCi):	3 E -05	3 E -05	3 E -05	3 E -05
Net CPM:	13	3	10	5
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi:	10,160	10,160	10,160	10,160
Analyst:	LB	LB	LB	LB

Performed by: Associates in Medical Physics (AMP) Under License No.: 34-26645-02

MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY:	St. John's Regional Medical Center - Nuclear Cardiology Lab	DEPARTMENT:	Nuclear Cardiology
LOCATION:	Joplin, MO	ATTENTION:	Jamie Walker, MS (RSO)

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 µCi, unless otherwise noted, when compared against NIST traceable standards.

Source: Co-57, Flood, 10 mCi, 3/01/08, Isotope Products, Model # PF16R-057-10M, S/N 1281-155.

Date:	3/07/08 TWD	6/06/08 TWD	12/05/08 TWD	6/05/09 TWD
Wipe No.:	Initial leak test	8869	9112	Shipped to IP
MDA (µCi):	was done by	3 E -05	3 E -05	for disposal.
Net CPM:	IP on	3	10	
Net µCi:		< MDA	< MDA	
CPM for 0.005 µCi:	<0.005	10,160	10,160	
Analyst:	IP	LB	LB	

Source: Co-57, Flood, 10 mCi, 3/01/08, Isotope Products, Model # PF16R-057-10M, S/N 1283-028.

Date:	3/07/08 TWD	6/06/08 TWD	12/05/08 TWD	6/05/09 TWD
Wipe No.:	Initial leak test	8870	9113	Shipped to IP
MDA (µCi):	was done by	3 E -05	3 E -05	for disposal.
Net CPM:	IPL on	3	10	
Net µCi:		< MDA	< MDA	
CPM for 0.005 µCi:	<0.005	10,160	10,160	
Analyst:	IPL	LB	LB	

Performed by: Associates In Medical Physics (AMP) Under License No.: 34-26645-02

MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY:	St. John's Regional Medical Center - Nuclear Cardiology Lab	DEPARTMENT:	Nuclear Cardiology
LOCATION:	Joplin, MO	ATTENTION:	Jamie Walker, MS (RSO)

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 µCi, unless otherwise noted, when compared against NIST traceable standards.

Source: Co-57, Flood, 10 mCi, 6/01/09, Isotope Products, Model # PF16R-057-10M, S/N 1374-062.

Date:	6/05/09 TWD	6/05/09 TWD
Wipe No.:	Initial leak test	1125
MDA (µCi):	was done by	3 E -05
Net CPM:	IP on 4/20/09	5
Net µCi:		< MDA
CPM for 0.005 µCi:	<0.005	10,160
Analyst:	IP	LB

Source: Co-57, Flood, 10 mCi, 6/01/09, Isotope Products, Model # PF16R-057-10M, S/N 1374-063.

Date:	6/05/09 TWD	6/05/09 TWD
Wipe No.:	Initial leak test	1126
MDA (µCi):	was done by	3 E -05
Net CPM:	IPL on 4/20/09	5
Net µCi:		< MDA
CPM for 0.005 µCi:	<0.005	10,160
Analyst:	IPL	LB

Performed by: Associates in Medical Physics (AMP) Under License No.: 34-26645-02

MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY:	St. John's Regional Medical Center	DEPARTMENT:	Radiation Oncology
LOCATION:	Joplin, Missouri	ATTENTION:	Jamie Walker, MS, RSO

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 µCi, unless otherwise noted, when compared against NIST traceable standards.

Source: (x4) Cs-137 Tubes, LLD, 10 mg Ra Eq, 1/9/81, 3 M, Mod. #6D6C, S/N 3783, 3771, 3765, 3770. 3-year leak test exemption.

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	4878	6871	9114	1127
MDA (µCi):	2 E-04	2 E-04	2 E-04	2 E-04
Net CPM:	4	4	14	7
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi:	1,500	1,500	1,500	1,500
Analyst:	LB	LB	LB	LB

Source: (x6) Cs-137 Tubes, 15 mg Ra Eq, 1/9/81, 3 M, Mod #6D6C, S/N 2190, 2157, 2176, 2193, 2212, 2168 (LLD) 3-year leak test exemption.

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	4878	6871	9114	1127
MDA (µCi):	2 E-04	2 E-04	2 E-04	2 E-04
Net CPM:	4	4	14	7
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi	1,500	1,500	1,500	1,500
Analyst:	LB	LB	LB	LB

Source: (x3) Cs-137 Tubes, LRD, 20 mg Ra Eq, 1/9/81, 3 M, Mod #6D6C, S/N 1679, 1698, 1684 3-year leak test exemption.

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	4878	6871	9114	1127
MDA (µCi):	2 E-04	2 E-04	2 E-04	2 E-04
Net CPM:	4	4	14	7
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi:	1,500	1,500	1,500	1,500
Analyst:	LB	LB	LB	LB

Performed by: Associates in Medical Physics, LLC Under License No. : 34-28645-02

LRD = Lower Right Drawer
LLD = Lower Left Drawer

MEDICAL PHYSICS SURVEY
SEALED SOURCE LEAK TEST ANALYSIS REPORT

FACILITY:	St. John's Regional Medical Center	DEPARTMENT:	Radiation Oncology
LOCATION:	Joplin, Missouri	ATTENTION:	Jamie Walker, MS, RSO

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 µCi, unless otherwise noted, when compared against NIST traceable standards.

Source: Sr-90 Eye applicator, 125 mCi, 10/84, Nuclear Associates

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	Locked, not	Locked, not	Locked, not	1126
MDA (µCi):	leak tested	leak tested	leak tested	3 E-05
Net CPM:	Storage Only	Storage Only	Storage Only	14
Net µCi:	not in active use	not in active use	not in active use	< MDA
CPM for 0.005 µCi:				3,957
Analyst:				LB

Source: Cs-137, Tubes (x2), 25 mgRaeq, 11/3/93, Medi + Physics, Mod. #CDC.T1, S/N CZ246, CZ266

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	4878	6871	9114	1127
MDA (µCi):	2 E-04	2 E-04	2 E-04	2 E-04
Net CPM:	4	4	14	7
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi:	1,500	1,500	1,500	1,500
Analyst:	LB	LB	LB	LB

Source: (x2) Cs-137, tubes, 21.9 mgRaEq, Medi + Physics, Mod. #CDCT1, S/N CZ210(4/28/92), CY258(9/29/92)

Date:	12/05/07 TWD	6/05/08 TWD	12/04/08 TWD	6/04/09 TWD
Wipe No.:	4878	6871	9114	1127
MDA (µCi):	2 E-04	2 E-04	2 E-04	2 E-04
Net CPM:	4	4	14	7
Net µCi:	< MDA	< MDA	< MDA	< MDA
CPM for 0.005 µCi:	1,500	1,500	1,500	1,500
Analyst:	LB	LB	LB	LB

Performed by: Associates in Medical Physics, LLC Under License No.: 34-26645-02

LRD = Lower Right drawer
LLD = Lower Left drawer

MEDICAL PHYSICS SURVEY

DATE: June 04 & 05, 2009 FACILITY: St. John's Regional Medical Center
Joplin, Missouri

The attached Medical Physics Survey is a review of the Radiation Safety Program. This survey satisfies the Radiation Safety Officer's (RSO) obligations under ALARA.

Other suggested recommendations for corrections are listed below:

ITEM (if any)	Correction
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
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_____
Radiation Safety Officer

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Kansas City, MO 64106

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