

St. Louis Cancer and Breast Institute
(Ballas Cancer Center)
Suite 100
1000 Des Peres Rd.
Des Peres, MO 63131

May 2, 2007

Materials Licensing Branch
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352
Phone: (630) 829-9500
Fax: (630) 515-1078

RE: Application for Materials License Amendment to USNRC license # 24-32151-01.

We have ceased all licensed operations at Suite 70, 450 N. New Ballas Rd., St. Louis, MO 63141 and have changed our location to Suite 100, 1000 Des Peres Rd., Des Peres, MO 63131 consistent with our most recent license amendment adding the Des Peres location, which was approved on March 12, 2007.

Please find enclosed NRC Form 313 to remove the Ballas Rd location from our NRC license. The two most recent leak test results and a final survey and wipe test report are also enclosed demonstrating the lack of contamination at the Ballas site. All licensed material was relocated to the Des Peres clinic before performing the final wipe tests and survey.

Please expedite this request if possible and direct any questions to Todd E. Grigereit, Ph.D. at (314) 471-0254 or via email at tgrigereit@stlcancer.com.

Sincerely,



Todd E. Grigereit, Ph.D.
Radiation Safety Officer



Diane M. Radford, M.D.
Executive Manager

RECEIVED MAY 09 2007

NRC FORM 313

(10-2005)
10 CFR 30, 32, 33,
34, 35, 36, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 10/31/2008

Estimated burden per response to comply with this mandatory collection request: 4.4 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, MISSISSIPPI, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-4005

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

☐

A. NEW LICENSE

☒

B. AMENDMENT TO LICENSE NUMBER 24-32151-01

☐

C. RENEWAL OF LICENSE NUMBER

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Ballas Cancer Center, dba:
St. Louis Cancer & Breast Institute
Suite 100
1000 Des Peres Road
Des Peres, MO 63131

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

Ballas Cancer Center, dba:
St. Louis Cancer & Breast Institute
Suite 100
1000 Des Peres Road
Des Peres, MO 63131

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Todd E. Grigereit, Ph.D.

TELEPHONE NUMBER

(314) 471-0250

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY	AMOUNT ENCLOSED	\$ 0.00
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13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER -- TYPED/PRINTED NAME AND TITLE

Diane M. Radford, M.D., Executive Manager

SIGNATURE

DATE

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
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\$

APPROVED BY

DATE

Final Radiation Survey and Contamination wipe-test

Date: April 5, 2007
Location: 450 N. New Ballas Rd, Suite 70, St. Louis, MO 63141
Performed by: Todd E. Grigereit, Ph.D., Medical Physicist, Radiation Safety Officer

Equipment

Survey Meter (Ion Chamber): Victoreen 450P, SN 3903, last calibration 10/26/06.
Background radiation level: 20 microR/hr
Survey Meter constancy check: 10 microCurie Cs-137 Checksource

Wipe-test spectrometer: Atomlab 930, SN 1651016
Startup calibration source: Cs-137 10 microCurie source

Wipe Tests performed in radiopharmaceutical "hot lab", the only use location of unsealed source material.

<u>Location</u>	<u>Outcome</u>
1. Right half of plastic cover on counter	Passed
2. Left half of plastic cover on counter	Passed
3. Base of superficial machine	Passed
4. Locked cabinet second shelf	Passed
5. Top of superficial machine	Passed
6. Left half of counter top	Passed
7. Right half of counter top	Passed
8. Locked cabinet bottom shelf	Passed
9. Locked cabinet under the sink	Passed

St. Louis Cancer & Breast Institute

WIPE REPORT: RESULTS

DATE: Apr 09, 2007

TIME: 09:32

AREA # 1 Description: Balles Wipe Test HotLab

Unrestricted, RSD trigger level at 100 % of Federal guidelines.

Isotope:	Cs-137	Sm-153	Tc-99m	I-131	Ba-133	Ir-192
Trigger in dpm:	200	200	2000	200	200	200
Det. probability	0.80	0.99	0.99	0.94	0.97	0.99
Wipe Description	dpm	dpm	dpm	dpm	dpm	dpm
1) <u>R counter cover</u>	-71	12	4	-24	-43	-16
2) <u>L counter cover</u>	86	-10	4	4	-19	1
base 3) <u>Superficial machine</u>	149	8	0	44	22	18
4) <u>2nd shelf upper cab.</u>	149	-1	0	31	14	21
top 5) <u>Superficial machine</u>	-8	-5	0	17	30	14
6) <u>L counter</u>	55	-10	9	-37	-51	1
7) <u>R counter</u>	-102	-10	4	17	39	4
8) <u>1st shelf upper cab.</u>	86	17	0	4	14	28
9) <u>Under sink cubm.</u>	149	17	0	44	22	-27

Technologist: Y. S. J.

Comments: All clear

St. Louis Cancer & Breast Institute

WIPE REPORT: EFFICIENCY AND LLD

DATE: Apr 09, 2007

TIME: 09:06

DETECTOR: WELL GEOMETRIC EFFICIENCY: 98 %

ISOTOPE SETUP:

ISOTOPE	GAIN	LEFT ROI KEV	RIGHT ROI KEV	DETECTOR EFFICIENCY %
Tc-99m	12	119	162	82
I-131	4	309	420	30
Ba-133	4	256	410	50
Cs-137	2	561	761	13
Ir-192	2	250	703	120
Sm-153	12	40	110	93

WIPE COUNT TIME: RESTRICTED AREA AND SEALED SOURCE: 15 Seconds
 UNRESTRICTED AREA WIPE COUNT TIME: 15 Seconds
 WIPE RECOUNT TIME: RESTRICTED AREA AND SEALED SOURCE: 15 Seconds
 UNRESTRICTED AREA WIPE RECOUNT TIME: 15 Seconds
 LAB BACKGROUND COUNT TIME: 60 Seconds

BACKGROUND RESULTS:

ISOTOPE	BKG. COUNTS	BKG. RATE CPM	BKG. DPM Equiv.	LOWER LIMIT OF DETECTION DPM	
				Restricted	Unrestricted
Tc-99m	0	0	0	19	19
I-131	19	19	64	97	97
Ba-133	33	33	67	70	70
Cs-137	29	29	227	255	255
Ir-192	99	99	84	43	43
Sm-153	37	37	40	39	39

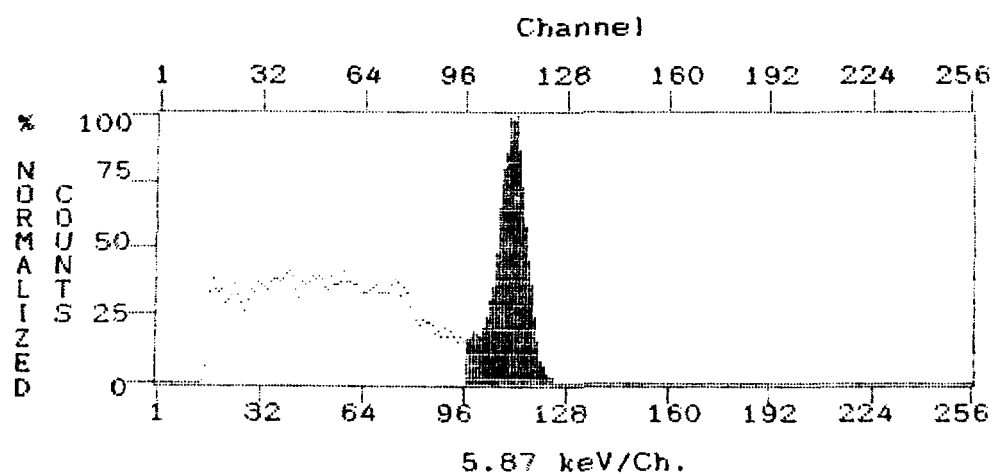
S/N 1651016 D4.2/M4.0

St. Louis Cancer & Breast Institute

Spectrum Report

DATE: Apr 09, 2007

TIME: 09:03



Count Distribution
I = Shaded
II = Unshaded
III = Events > Ch 256

The above spectrum was collected under the following conditions:

Mode: Calibration - after calibration save

ID: N/A

Isotope: Cs-137

Detector: Well

Gain: 2

Count type: Auto count time using the maximum

Spectrum Analysis:

Peak: Energy = 661 keV; Count = 2016; Rate = 2016 cpm

ROI 1: Energy = 562 keV to 761 keV; Count = 21246; Rate = 21248 cpm

Total: Count = 76094; Rate = 76094 cpm

Count Time: 60 seconds.

Events above channel 256: 146 counts

S/N 1651016 D4.2/M4.0

omed Yet

CALIBRATION:

Isotope	Peak keV	normalization factors		Gain	LLD keV	ULD keV
		Well	Probe			
I-123	159	N/A	N/A	8	133	183
I-125	27	N/A	N/A	48	23	40
I-131	364	N/A	N/A	4	309	419
Co-57	122	N/A	N/A	12	104	156
Cr-51	320	N/A	N/A	4	272	368
Tc-99m	141	N/A	0.9929	12	119	162
Cs-137	662	N/A	N/A	2	562	761
OTHER		N/A	N/A	1	117	2000

* indicates a change from the factory defaults.

ERRORS:

None.

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WIPE REPORT: RESULTS

DATE: Apr 12, 2007

TIME: 15:53

AREA # 1 Description: Leak Testing

Unrestricted, RSO trigger level at 100 % of Federal guidelines.

Isotope:	Cs-137	Sm-153	Tc-99m	I-131	Ba-133	Ir-192
Trigger in dpm:	200	200	2000	200	200	200
Det. probability	0.79	0.99	0.99	0.94	0.98	0.99

Wipe Description	dpm	dpm	dpm	dpm	dpm	dpm
1) <u>Cs vial</u>	-197	11	-1	61	51	16
2) <u>Cs big rod</u>	86	20	-1	47	34	6
3) <u>Cs small rod</u>	-103	33	3	7	26	-14
4) <u>Cs button</u>	-8	-20	3	-7	-23	-18
5) <u>Ba vial</u>	-8	-28	-1	7	18	30

Technologist: JS Fry A

Comments: _____

St. Louis Cancer & Breast Institute

WIPE REPORT: EFFICIENCY AND LLD

DATE: Apr 12, 2007

TIME: 15:46

DETECTOR: WELL GEOMETRIC EFFICIENCY: 98 %

ISOTOPE SETUP:

ISOTOPE	GAIN	LEFT ROI KEV	RIGHT ROI KEV	DETECTOR EFFICIENCY %
Tc-99m	12	119	162	82
I-131	4	309	420	30
Ba-133	4	256	410	50
Cs-137	2	561	761	13
Ir-192	2	250	703	120
Sm-153	12	40	110	93

WIPE COUNT TIME: RESTRICTED AREA AND SEALED SOURCE: 15 Seconds
 UNRESTRICTED AREA WIPE COUNT TIME: 15 Seconds
 WIPE RECOUNT TIME: RESTRICTED AREA AND SEALED SOURCE: 15 Seconds
 UNRESTRICTED AREA WIPE RECOUNT TIME: 15 Seconds
 LAB BACKGROUND COUNT TIME: 60 Seconds

BACKGROUND RESULTS:

ISOTOPE	BKG. COUNTS	BKG. RATE CPM	BKG. DPM Equiv.	LOWER LIMIT OF DETECTION DPM	
				Restricted	Unrestricted
Tc-99m	1	1	1	21	21
I-131	18	18	61	97	97
Ba-133	27	27	55	66	66
Cs-137	33	33	259	265	265
Ir-192	97	97	82	43	43
Sm-153	38	38	41	39	39

St. Louis Cancer & Breast Institute

WIPE REPORT: RESULTS

DATE: Sep 18, 2006

TIME: 12:46

AREA # 1 Description:

Leak Testing

Unrestricted, RSD trigger level at 100 % of Federal guidelines.

Isotope:	Cs-137	Sm-153	Tc-99m	I-131	Ba-133	Ir-192
Trigger in dpm:	200	200	2000	200	200	200
Det. probability	0.77	0.99	0.99	0.93	0.97	0.99
Wipe Description	<u>dpm</u>	<u>dpm</u>	<u>dpm</u>	<u>dpm</u>	<u>dpm</u>	<u>dpm</u>
1) <u>Small Cs rod</u>	-181	27	0	24	-11	-16
2) <u>Cs button</u>	-244	14	0	-17	-19	-19
3) <u>Large Cs rod</u>	-118	5	0	-30	-11	-9
4) <u>Ba vial</u>	-55	18	0	24	55	15

Technologist:

YJF

Comments:

B6 done before

St. Louis Cancer & Breast Institute

WIPE REPORT: RESULTS

DATE: Sep 13. 2006

TIME: 12:48

AREA # 1 Description:

Leichter

Unrestricted, RSD trigger level at 100 % of Federal guidelines.

Isotope:	Cs-137	Sm-153	Tc-99m	I-131	Ba-133	Ir-192
Trigger in dpm:	200	200	2000	200	200	200
Det. probability	0.77	0.99	0.99	0.93	0.97	0.99

Wipe Description	dpm	dpm	dpm	dpm	dpm	dpm
1) <i>Cs vial</i>	70	14	0	-17	-19	-6

Technologist: *JS*

Comments:

