



December 15, 2004

Michelle Beardsley  
Health Physicist  
US NRC Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

RECEIVED  
REGION I  
DEC 20 P 1 25  
04

03033417

**Re: Amendment Request for Radioactive Materials License Number 37-28453-02**

Dear Ms. Beardsley,

An amendment to the above referenced radioactive materials license is requested to:

**1. Add the following authorized user:**

Suman Jana, MD

Please see Dr. Jana's attached board certification. He should be authorized for nuclear medicine and PET imaging under 35.100, 35.200, and 35.500.

**2. Remove the following authorized user:**

Ping Lu, MD

**3. Remove the following as a location of use:**

Integral Imaging at Oxford Square  
390 Middletown Boulevard, Suite 602  
Langhorne, PA 19047

Please see the attached closeout survey. All areas were found to be free of radioactive contamination. The radioactive vial sealed sources were picked up by Cardinal Health for disposal. The radioactive flood sealed source was transferred to our location at 193 N. Harrison Street, Princeton, NJ. The radioactive rod source was transferred to our location at 1262 Wood Lane, Suite 202, Langhorne, PA. Radioactive waste was decayed down to background and then disposed of as biohazardous waste.

**4. Remove the following as a location of use:**

Integral Nuclear at Hamilton  
1777 Klockner Road, First Floor  
Trenton, NJ 08619

136167

**NMSS/RGNI MATERIALS-002**

Please see the attached closeout survey. All areas were found to be free of radioactive contamination. The radioactive sealed sources were picked up by Cardinal Health for disposal. Radioactive waste was decayed down to background and then disposed of as biohazardous waste.

Separate amendment requests have been submitted to the Pennsylvania Department of Environmental Protection and the New Jersey Department of Environmental Protection in order to make these changes to our state radioactive material licenses.

If you have any further questions or need any additional information, please do not hesitate to notify me at (610) 993-1640 Ext. 203, or you may contact Janice Nguyen, our Health Physicist, at (610) 993-1640 Ext. 208. Thank you in advance for your help.

Sincerely,

A handwritten signature in cursive script that reads "Wendy Rowan".

Wendy Rowan  
Vice President of Operations

Attachments

# The American Board of Nuclear Medicine

Incorporated 1971

Certifies that

## Suman Jana

has met the requirements of this Board and is qualified  
during the period of 2000 through 2010 to practice as a Specialist  
in all aspects of Clinical and Laboratory

## Nuclear Medicine

including but not limited to Radiobioassay, Nuclear Imaging,  
In Vivo Measurements & Therapy with Unsealed Radionuclides

Ronald L. Van Heerden  
Chairman



07096  
Number 35

Mark J. Ferguson  
Secretary-Treasurer

Weekly Survey Data for Oxford Square

For the Week of: 11-29-04

Survey Area Meter No.:	Monday		Tuesday <sup>11/30/04</sup>		Wednesday		Thursday		Friday		Saturday	
	mR/hr	dpm	mR/hr	dpm	mR/hr	dpm	mR/hr	dpm	mR/hr	dpm	mR/hr	dpm
1. Hot Lab Prep			.03	38								
2. Dose Calibrator			.04	16								
3. Hot Trash			.03	29								
4. Cold Trash			.02	98								
5. Hot Lab Floor			.02	0								
6. Prep Room			.02	0								
7. Stress Room			.03	0								
8. Source Storage			.06	120								
9. Camera/Computer			.02	0								
10. Camera Floor			.02	0								
11. Bathroom			.03	0								
12. Waiting Room			.02	0								
Background (mR/hr/cpm)			0.02	776 cpm								
Surveyor:	<i>ES</i>		<i>ds</i>									
Individual (hands/feet/clothing)	<i>Dave S.</i>		<i>0.03/0.03/0.02</i>		<i>0.03/0.03/0.02</i>							
Individual (hands/feet/clothing)												
Individual (hands/feet/clothing)												

Notify RSO if any survey is:

5.0 mR/hr  
0.5 mR/hr

20,000 dpm/100cm<sup>2</sup> (Restricted Area)  
2,000 dpm/100cm<sup>2</sup> (Unrestricted Area)

HOT LAB AREA.  
Close-out surveys.  
11.30.04.

performed by D. Steigerwalt, CNM  
Oxford Square

	<u>mR/hr</u>	<u>dpm</u>
Lead bricks - source storage	0.04	∅
Counter space in front of lead bricks.	0.03	∅
Well counter	0.03	∅
Dose calibrator.	0.04	16
Lead L-block	0.02	∅
Counter space in front of Well counter + dose calibrator.	0.02	6
Counter space next to sink (i.e., left of sink.)	0.03	143.
Sink.	0.04	27
Floor.	0.02	∅
Decay storage bin.	0.03	29

Background = 0.02 mR/hr.

Survey meter used. - Ludlum 3 s/n. 162651

Background = 776 cpm.

Well counter used:  
Ludlum 2200 s/n 104312

# Source Leak Test / Inventory

Paoli Executive Green II  
43 Leopard Road, Suite 200  
Ioli, PA 19301

(610) 993-1640  
(610) 993-1651 FAX

Date: 11-30-04

Review Performed by: D. Feigenwall, CNMT, ASST RSO.

Facility: Oxford Square

RSO Review: Janeil E. Nguyen 11-30-04

## I. Source Data :

Source	Serial Number	Activity/Date	Wipe(cpm)	BKG(cpm)	NET(cpm)	Comments
* Cs 137	58117010-05	105.9 $\mu$ Ci 10-4-92	770	776	Ø	Capintec vial.
	(from Buck County)	Added to inventory 11-30-04 ds.				
		* Picked up by Cardinal Health for disposal on 11-30-04.				
Cs 137	788-22-3	261.0 $\mu$ Ci 3-1-02	681	776	Ø	Syringe vial
		- Removed from inventory. Delivered to Bucks County office ds				
						11-30-04
<b>Location of Sources:</b>						

## II. Well Counter Efficiency Verification :

Check Source : \_\_\_\_\_ Calib. Date : \_\_\_\_\_ Activity : \_\_\_\_\_

Current Source Activity : \_\_\_\_\_

$$\text{Efficiency} = \frac{\text{Check Source (cpm)} - \text{Background (cpm)}}{(2.22 \times 10^6 \text{ dpm/uCi}) \times (\text{Current Activity uCi})}$$

= \_\_\_\_\_ cpm/dpm

0.005 uCi x 2.22 x 10<sup>6</sup> dpm/uCi = 11,100 dpm

For this counter :  
11,100 dpm x \_\_\_\_\_ cpm/dpm = \_\_\_\_\_ cpm  
(Efficiency from above)

Therefore, wipes exhibiting net count rates of this or less, are less than 0.005 uCi.

### Source Leak Test / Inventory

Paoli Executive Green II  
43 Leopard Road, Suite 200  
All, PA 19301

(610) 993-1640  
(610) 993-1651 FAX

Date: 8-10-04

Review Performed by: Sue Carper, CNMT

Facility: Oxford Square

RSO Review: Jessica E. Nguyen, Health Phys. SRO/RSO  
8-10-04

#### I. Source Data :

Source	Serial Number	Activity/Date	Wipe(cpm)	BKG(cpm)	NET(cpm)	Comments
* CS137	757-99-8	1.133 uCi / 3-1-02	—	518	—	Syringe-Rod
** CS137	788-22-3	261.0 uCi / 3-1-02	498	518	0	Syringe-Vial
*** Co57	788-68-49	5.530 mCi / 4-12-04	522	518	3	Syringe-Vial
**** Co57	DM01101226	10 mCi / 4-12-04	530	518	10	Red Oval-Flood
CS137(2)	99-2409, 99-2534	1 uCi each	496	518	0	Source checks

All sources are present, secure, and free of removable contamination (< 0.005 uCi).

Location of Sources: Check Sources are on Survey meters. Rod & vial sources are kept in lead foil. Flood is kept in lead-lined case near hot trash. All sources are kept in hot lab, which is kept locked when not in use.

#### II. Well Counter Efficiency Verification :

Check Source : \_\_\_\_\_ Calib. Date : \_\_\_\_\_ Activity : \_\_\_\_\_

\* Transferred to Wood Lane site. Current Source Activity : \_\_\_\_\_

\*\* Transferred to Bucks County site.

\*\*\* Picked up by Cardinal Health for disposal.

\*\*\*\* Transferred to Princeton site.

Check Source (cpm) - Background (cpm)

$(2.22 \times 10^6 \text{ dpm/uCi}) \times (\text{Current Activity uCi})$

Efficiency = \_\_\_\_\_

All done on \_\_\_\_\_

11-30-04. = \_\_\_\_\_ cpm/dpm

$0.005 \text{ uCi} \times 2.22 \times 10^6 \text{ dpm/uCi} = \underline{11,100} \text{ dpm}$

For this counter :

$11,100 \text{ dpm} \times \underline{\hspace{2cm}} \text{ cpm/dpm} = \underline{\hspace{2cm}} \text{ cpm}$   
(Efficiency from above)

Therefore, wipes exhibiting net count rates of this or less, are less than 0.005 uCi.





Weekly Survey Data for Hamilton

For the Week of:

Survey Area	12-10-04									
Meter No.:	mR/hr	dpm	mR/hr	dpm	mR/hr	dpm	mR/hr	dpm	mR/hr	dpm
1. Hot Lab →	0.02	426/θ	Dose Calibrator →	0.02	424/θ					
2. Hot Lab Floor →	0.02	411/θ	Well Counter →	0.02	452/θ					
3. Safe →	0.02	418/θ	Survey Meters →	0.02	460/θ					
4. Table →	0.02	470/1	Staff Bathroom →	0.02	457/θ					
5. Camera →	0.02	486/20	Patient Bathroom Toilet →	0.03	459/θ					
6. Hot Trash → *	0.50	547/91	Patient Bathroom Sink →	0.03	419/θ					
7. Storage →	0.02	469/θ	Lead Lined Sharps →	0.02	510/48					
8. Treadmill →	0.02	501/37	Lead Syringe Carriers →	0.02	465/θ					
9. Injection Site →	0.02	468/θ	Small Lead-Lined Waste →	0.02	490/24					
10. Chair →	0.02	452/θ	Large Lead-Lined Waste →	0.02	444/θ					
11. Bathroom Floor →	0.03	486/20	L-Block →	0.02	465/θ					
12. Waiting Room →	0.02	499/35	Lead Bricks →	0.02	412/θ					
Background (mR/hr/cpm)	0.02	469		0.02	469		0.02	469		
Surveyor:	Janice Nguyen									
Individual: (hands/feet/clothing)	0.02/0.02/0.02		1	1	1	1	1	1	1	1
Individual: (hands/feet/clothing)	1	1	1	1	1	1	1	1	1	1

Last Day of Patients: 12-9-04  
Only use Tc-99m

\* Hot trash was bagged and put into lead safe for decay - in-storage. Reading in lead safe was 0.02 mR/hr

Notify RSO if any survey is:  
5.0 mR/hr  
Efficiency for Tc-99m/ 0.5 mR/hr  
Co-57 is 0.86 cpm/dpm

20,000 dpm/100cm2 (Restricted Area)  
2,000 dpm/100cm2 (Unrestricted Area)

Used Well Counter  
Ludlum 2200 S/N 157910  
w/ 243 well S/N R159428





This is to acknowledge the receipt of your letter/application dated

12/15/2008, and to inform you that the initial processing which includes an administrative review has been performed.

AMCWA, 37-28453-02 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

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A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 136167.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.

BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

: (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----  
:  
: Program Code: 02220  
: Status Code: 0  
: Fee Category: 7C  
: Exp. Date: 20140331  
: Fee Comments: \_\_\_\_\_  
: Decom Fin Assur Reqd: N  
: ::

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: INTEGRAL NUCLEAR ASSOCIATES, LLC  
Received Date: 20041220  
Docket No: 3033417  
Control No.: 136167  
License No.: 37-28453-02  
Action Type: Amendment

2. FEE ATTACHED

Amount: \_\_\_\_\_  
Check No.: /

3. COMMENTS

Signed Mr. A. Perkins  
Date 12/22/04

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /\_\_/) )

1. Fee Category and Amount: \_\_\_\_\_

2. Correct Fee Paid. Application may be processed for:

Amendment \_\_\_\_\_  
Renewal \_\_\_\_\_  
License \_\_\_\_\_

3. OTHER \_\_\_\_\_  
\_\_\_\_\_

Signed \_\_\_\_\_  
Date \_\_\_\_\_