# BORGESS Medical Center

October 9, 2012

UNITED STATES NUCLEAR REGULATORY COMMISSION Region III, Materials Licensing Section 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352

Re: 411 Naomi Street, Plainwell, MI location License No. 21-12275-02, Borgess Medical Center

We are resubmitting the request to remove the 411 Naomi Street, Plainwell, MI location from our license. A copy of our original request dated July 25, 2011 is enclosed. The last decay in storage, waste disposal records, and a close out survey of the location is enclosed for your review.

Thank you for your cooperation in this matter. If you have any questions, please contact our Radiation Safety Officer, Paul Jursinic, Ph.D. at 269-373-7407 or pjursinic@wmcc.org.

Regards,

Tom Mushett, Radiology Director

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Paul Jursinic, Ph.D., Radiation Safety Officer

RECEIVED OCT 15 2012

SCENSION



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Regards,

Linda Lawton, MSN, RN, FACHE

Vice President, Borgess Medical Center Operations

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#### Close-out Survey

Borgess – Pipp Hospital 411 Naomi Street Plainwell, MI 49080

Date Performed: July 5, 2011

Performed By: Dawn Edwards, M.S., Consulting Physicist

Wipe tests were analyzed with a Capintec Captus 600 Well Counter. The efficiency factor is 1.26 dpm/cpm and the MDA is 30 dpm. The action level for wipe tests was 1000 dpm/100 cm<sup>2</sup>.

Surveys were performed using a Bicron 2000 survey meter, serial number I-208A with an end window probe. Range used was 0-0.2 mR/hr. The meter was last calibrated on 08/23/10. The action level for exposure rate surveys was 0.1 mR/hr.

#### Visual Check

The area was checked to ensure no radioactive materials were in any of the rooms. The last use of radiopharmaceuticals was on June 30, 2011. The nuclear medicine room and stress lab were used for patient imaging and injections. The hot lab area was used to store sealed sources and radiopharmaceuticals. Only Tc-99m was used at this location and all waste was decayed to background exposure. Radioactive sealed sources were transferred to the main nuclear medicine department at Borgess Medical Center, 1521 Gull Road, Kalamazoo, Ml. There is no history of leaking sources and a copy of the most recent sealed source leak test is enclosed.

### Radiation Level Survey

No area within the office demonstrated radiation levels in excess of the background reading of \_0.01 mR/hr.

Borgess - Pipp Hospital July 5, 2011

## Removable Contamination

1 minute counts

Background 0 dpm

Area Results in dpm

Diagrams of the survey areas are enclosed.

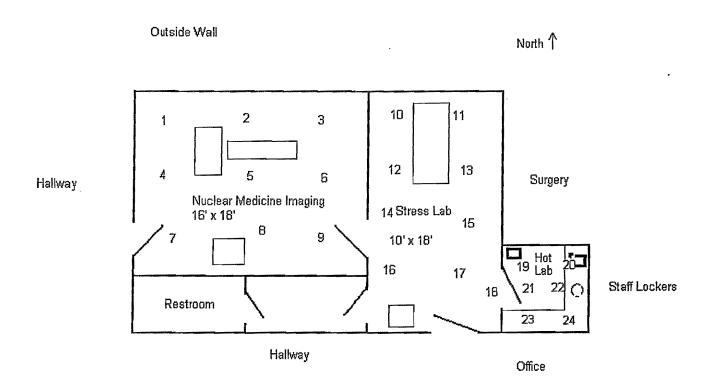
Area	Result
1	40 dpm
2	0 dpm
3	0 dpm
4	64 dpm
5	0 dpm
6	0 dpm
7	8 dpm
8	28 dpm
9	36 dpm
10	0 dpm
11	86 dpm
12	22 dpm
13	0 dpm
14	26 dpm
15	66 dpm
16	14 dpm
17	0 dpm
18	30 dpm
19	34 dpm
20	50 dpm
21	0 dpm
22	0 dpm
23	0 dpm
24	10 dpm

Maximum removable contamination: 86 dpm

### Conclusion

No removable contamination is present.

## Diagram of wipe and survey areas





# Sealed Source Inventory

Licensee: Borgess - Pipp Health Center

Date: 05/04/11

Performed by: Dawn Edwards

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Nuclide	Туре	Activity	Date	Location	M/N	S/N	
Ba-133	Vial	249.7 uCi	01/01/01	Hot Lab	IPL	743-16-6	
Current Ad	tivity; 128.1	i uCi					
Cs-137	Vial	217,1 uCi	12/01/00	Hot Lab	IPL	743-1-53	
Current Ad	ctivity: 170.6	3 uGi					
Cs-137	Rod	0.5 uCi	11/01/00	Hot Lab	IPL	725-42-4	
Current Ac	tivity: 0.392	uCi		•			
Cs-137	Spot	1 uCi	07/01/00	Meter		1159	
Current Ac	tivity: 0.778	uCi					
Cs-137	Spot	1 uCi	07/01/00	Meter		1168	
Current Ac	tivity: 0.778	uCi					
Co-57	Flood	15 mCi	12/10/07	Hof Lab	MED-3709	119669	
Current Ac	tivity: 0.627	mCi					
Co-57	Flood	10 mCi	10/01/10	Hot Lab	MED-3709	1457-053	
Current Ac	tivity: 5.769	mCl					

SEALED SOURCE AMBIENT EXPOSURE SURVEY

Meter:

Bicron at flood

Max Reading

0.3 mR/hr

Sealed Source Inventory Page 1



# Sealed Source Leak Test

Licensee: Borgess - Pipp Health Center

Date: 05/04/11

Performed by: Dawn Edwards

Nuclide	Туре	Calibration Activity	Calibration Date	on Location	M/N	S/N
Ba-133	Vial	249.7 uCi	01/01/01	Hot Lab	IPL	743-16-6
Current Ac	tivity: 12	8.1uCi				
Cs-137	Vial	217.1 uCi	12/01/00	Hot Lab	IPL	743-1-53
Current Act	tivity: 17	0.6uCl	•			
Co-57	Flood	15 mCi	12/10/07	Hot Lab	MED-3709	119669
Current Act	tivity: O.6	327mOi				
Co-57	Flood	10 mCi	10/01/10	Hot Lab	MED-3709	1457-053
Current Act	ivity: 5.7	769mCi				

Comment: The sources listed above were leak tested using a dry wipe technique and were found to have less than 0.005 uCl removable activity. The following Minimum Detectable Activities are based upon a background at the indicated value. Background was at or below these levels when the above tests were completed.

Well Counter: Captus 3000

<u>Nuclide</u>	MDA	Background
Cs-137	$2.0 \times 10^{-4} \text{ uCi}$	145 counts/1 min
Ba-133	8.8 x 10 <sup>-5</sup> uCi	204 counts/1 min
Co-57	1.7 x 10 <sup>-5</sup> uCi	53 counts/1 min

Sealed Source Leak Test Page 1

