SPECTRUM HEALTH

Spectrum Health United Hospital | MC400
615 South Bower Street
Greenville, MI 48838
spectrum-health.org

December 19, 2011

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

Re: Additional information to amendment 3
License No. 21-32293-01, Spectrum Health United.
****PLEASE EXPEDITE****

Enclosed please find the close out survey for our previous nuclear medicine department. This is being submitted as additional information to amendment 3, dated November 15, 2011.

We request expedited handling of this request, as the vacated space is needed for renovations that are part of a much larger facility expansion project. Once the close out survey has been approved, we will immediately begin renovations of the vacated space.

Andrew M. Bramnik of your office was on site at our facility on Thursday, December 15, 2011, conducting the triennial NRC Safety and Compliance Inspection. He conducted an independent survey of the vacated spaces of our previous nuclear medicine department, which he can also make available to you if needed to help expedite this request.

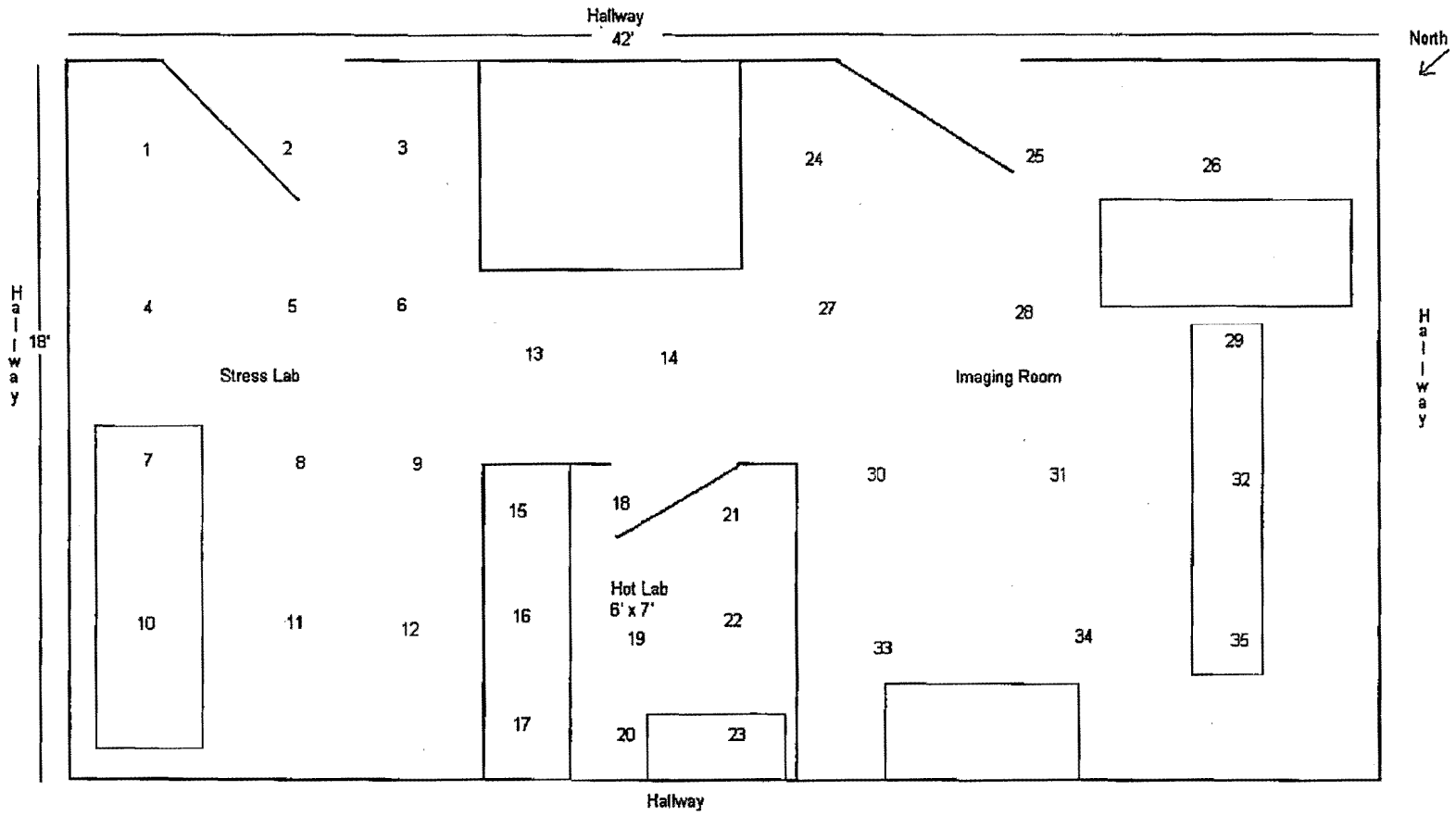
If you have any questions, please contact our Nuclear Medicine Technologist, Steven McDonnell at 616-225-6570 (Steven.Mcdonnell@spectrumhealth.org) or Mike Ancil, Director of Imaging Services at 616-225-6910 (George.Ancil@spectrumhealth.org).

Sincerely,

Priscilla K Mahar CCO

Priscilla K. Mahar
Chief Clinical and Compliance Officer

Spectrum Health United Hospital
Close out survey, December 13, 2011
Diagram of survey area



Closeout Survey

Spectrum Health United Hospital
615 Bower Street
Greenville, MI

Date Performed: December 13, 2011

Performed by: Steve McDonnell, Nuclear Medicine Technologist

Wipe tests were analyzed with a Capintec CRC 15W Well Counter. The efficiency factor is 1.2 dpm/cpm and the MDA is 33 dpm. The action level for wipe tests was 1000 dpm/100 cm^2.

Surveys were performed using a Ludlum 14C survey meter, serial number 172406 with an end window probe. The meter was last calibrated on 04/04/11. The range used was 0-0.2 mR/hr and 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. Tc-99m and Tl-201 radiopharmaceuticals were used at this location and all waste was decayed to background exposure. The last use of Tl-201 was at least 5 years ago and the last use of Tc-99m was December 9, 2011. The camera room and stress lab was used for patient imaging and injections. The hot lab area was used to store sealed sources and radiopharmaceuticals. Radioactive sealed sources and radioactive decay in storage waste was moved to the new Nuclear Medicine department prior to the close out survey. 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 department demonstrated radiation levels in excess of the background reading of 0.02 mR/hr.

Removable Contamination

1 minute counts

Background 336 cpm (0 dpm)

Area Results in net dpm (net cpm x 1.2 dpm/cpm)

Area	Result	Area	Result
1	4 dpm	19	0 dpm
2	26 dpm	20	27 dpm
3	17 dpm	21	0 dpm
4	0 dpm	22	14 dpm
5	52 dpm	23	0 dpm
6	11 dpm	24	36 dpm
7	57 dpm	25	0 dpm
8	27 dpm	26	0 dpm
9	14 dpm	27	18 dpm
10	0 dpm	28	15 dpm
11	39 dpm	29	31 dpm
12	28 dpm	30	41 dpm
13	35 dpm	31	36 dpm
14	0 dpm	32	27 dpm
15	0 dpm	33	0 dpm
16	35 dpm	34	6 dpm
17	47 dpm	35	22 dpm
18	0 dpm		

Maximum removable contamination: __57__ dpm

Conclusion

No removable contamination is present.

A diagram of wipe and survey areas is enclosed.

MPC MEDICAL PHYSICS CONSULTANTS, INC.

Sealed Source Inventory

Licensee: Spectrum Health-United Memorial Hlth Ctr Date: 06/21/11

Performed by: Dawn Edwards

Nuclide	Type	Calibration Activity	Date	Location	M/N	S/N
Cs-137	Vial	197.1 uCi	03/01/01	Hot Lab	RV137200U	7471143
Current Activity: 155.32 uCi						
Ba-133	Vial	246.5 uCi	04/01/01	Hot Lab	RV133250U	7472219
Current Activity: 127.41 uCi						
Cs-137	Disk	1 uCi	07/01/00	Meter	1336	
Current Activity: 0.776 uCi						
Cs-137	Disk	1 uCi	07/01/00	Meter	1161	
Current Activity: 0.776 uCi						
Co-57	Disk	65 uCi	04/01/01	Hot Lab	MED3503	6097
Current Activity: 0.005 uCi						
Cs-137	Rod	500 nCi	03/01/01	Hot Lab	IPL	747151
Current Activity: 394.02 nCi						
Co-57	Flood	15 mCi	01/01/10	Hot Lab	PF24R057-15M	1399-161
Current Activity: 3.807 mCi						

SEALED SOURCE AMBIENT EXPOSURE SURVEY

Meter: Ludlum 14C

Max Reading: 0.1 mR/hr

RADIATION SAFETY OFFICER: _____

MPC MEDICAL PHYSICS CONSULTANTS, INC.

Sealed Source Leak Test

Licensee: Spectrum Health-United Memorial Hlth Ctr Date: 06/21/11

Performed by: Dawn Edwards

Nuclide	Type	Calibration Activity	Calibration Date	Location	M/N	S/N
Cs-137	Vial	197.1 uCi	03/01/01	Hot Lab	RV137200U	7471143
Current Activity: 155.32 uCi						
Ba-133	Vial	246.5 uCi	04/01/01	Hot Lab	RV133250U	7472219
Current Activity: 127.41 uCi						
Co-57	Flood	15 mCi	01/01/10	Hot Lab	PF24R057-15M	1399-161
Current Activity: 3.807 mCi						

Comment: The sources listed above were leak tested using a dry wipe technique and were found to have less than 0.005 uCi 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

Nuclide	MDA	Background
Cs-137	2.0×10^{-4} uCi	145 counts/1 min
Ba-133	8.8×10^{-5} uCi	204 counts/1 min
Co-57	1.7×10^{-5} uCi	53 counts/1 min

RADIATION SAFETY OFFICER: _____

SPECTRUM HEALTH

Fax

Spectrum Health United Memorial
Diagnostic Imaging
615 South Bower Street
Greenville, MI 48838

Date:	Time:	No. of pages (including cover):
Dec 19, 2011	14:43:05 a.m.	7
To:	Fax:	Phone:
USNRC	630-515-1078	
From:	Fax:	Phone:
Mike Ancil	616-225-6495	616-225-6910

Please call if you have any problems with this transmission.
If you have received this fax in error, please notify us immediately.

Message:

License No.. 21-32293-01
Additional Information to Amendment 3
Decommissioning of previous nuclear medicine department

Please expedite – renovation of previous nuclear medicine department is tied to large construction/expansion project for our facility.

Thank you!

Mike Ancil, B.S., R.T.(R)(QM)(ARRT)
Director, Diagnostic Imaging
Spectrum Health United Memorial

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