WITHAM HEALTH SERVICES

Small Hospital. Big Medicine.

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Lebanon, IN 46052-3005
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www.witham.org

December 7, 2020

U. S. Nuclear Regulatory Commission
Materials Licensing Section
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Dear Sir or Madam:

Witham Memorial Hospital (Byproduct Materials License, Number 13-23331-01) would like to amend our license to remove a temporary area of use within our hospital at 2605 N. Lebanon St., Lebanon, IN. Decommissioning documentation is enclosed supporting this request.

If there are any questions concerning this amendment request, please contact our nuclear medicine physicist, Mr. Bryce A. Caudle, at 317-443-9035 or by email at bcaudle@mpcphysics.com.

Sincerely,

Jason Scott

Jason Scott
Director of Imaging

Close-out survey of Temporary Mobile Nuclear Medicine Unit,
Witham Memorial Hospital
2605 N. Lebanon St., Lebanon, IN 46052

Performed by: Bryce A. Caudle, M.S.
Medical Physics Consultants, Inc.

Radioactive materials usage in this area of use was limited to materials licensed under 10 CFR 35.100 and 35.200. Sealed sources were used for equipment quality control but were brought onto the unit from the hospital and not stored in this area.

Wipe tests for removable radioactive contamination were taken on 12/7/20 and analyzed in a Ludlum Model 243 (S/N: 117305) Shielded Well Scintillator coupled to a Ludlum Model 2200 (S/N: 116584) Scaler Ratemeter. A window of 50 to 400 keV was used to analyze the wipes. The efficiency of this system for cobalt-57 is 1.15 dpm/cpm. The results of the wipe samples are enclosed.

The radiation levels survey was performed on 12/7/20 by Bryce Caudle, using a Ludlum Model 3 Geiger-Muller survey meter (S/N: 31745) with an end-window probe. The meter was calibrated on 1/6/2020. The range used for the radiation level survey was 0.0 to 0.2 mR/hr.

Visual Inspection

The area was visually inspected to ensure that all radioactive waste had been removed. No radioactive material was located in the area. All radioactive material signage has been removed from the area.

Radiation Level Survey

No area demonstrated radiation levels in excess of the background reading of 0.02 mR/hr.

Sealed Sources

No sealed sources or waste materials were stored in this area. Any waste materials generated were taken to the hospital hot lab at the end of the day. Sealed sources used for camera quality control were brought in from the hospital hot lab and then taken to the hot lab for storage after use.

Removable Contamination Survey Results

Wipe samples were counted in a Ludlum Model 243 Shielded Well Scintillator (S/N: 117305) coupled to a Ludlum Model 2200 Scaler Ratemeter (S/N: 116584). The efficiency of this system for cobalt-57 is 1.15 dpm/cpm.

Background: 154 counts per minute

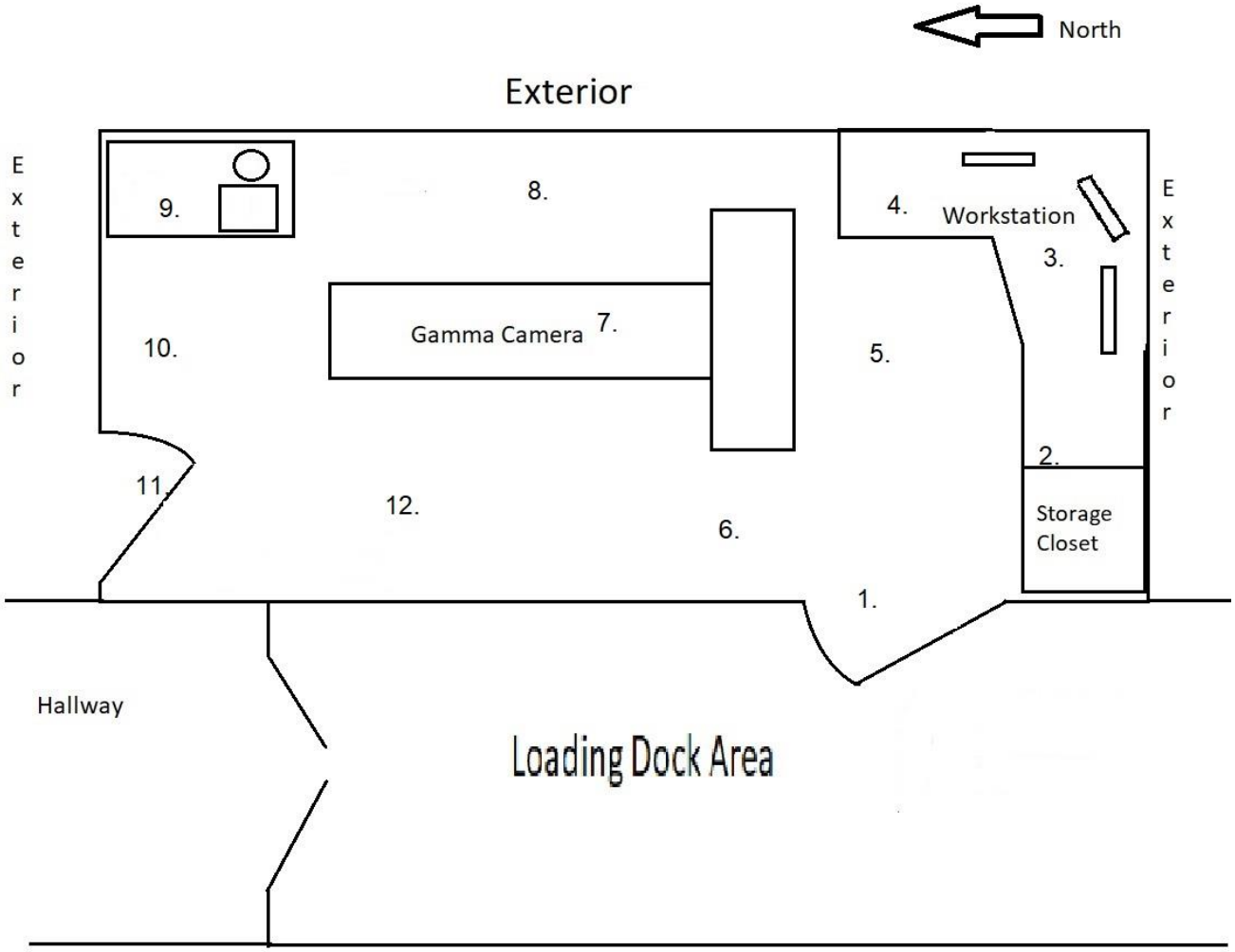
Wipe Number	Gross counts per minute	Net counts per minute	Disintegrations per minute
1	138	0	0
2	158	4	4.60
3	149	0	0
4	133	0	0
5	150	0	0
6	153	0	0
7	138	0	0
8	142	0	0
9	137	0	0
10	131	0	0
11	140	0	0
12	145	0	0

*Please refer to the attached survey map for wipe locations.

Maximum removable contamination occurred in area 2. Gross count rate = 158 cpm/100cm^2. Net count rate (gross minus background) = 158 – 154 = 4 cpm/100cm^2. Net removable disintegrations per minute = 4 cpm/100cm^2 x 1.15 dpm/cpm = 4.60 dpm/100cm^2.

Conclusion

All radioactive materials have been removed from the area of use and no removable contamination is present.



Witham Memorial Hospital Temporary Area of Use

The above area of use was a fixed unit mobile truck attached to the loading dock at the hospital (2605 N. Lebanon St., Lebanon, IN 46052). The area was limited to 35.100 and 200 materials only. No sealed sources or waste materials were stored in the area. Patients were injected with radiopharmaceuticals and imaged on the truck. Any waste materials generated were taken to the hospital hot lab for storage. Sealed sources were brought in from the hot lab for quality control and immediately returned to the hot lab for storage after the quality control testing was completed.

Willour, Jeffrey

From: Song, Taehoon
Sent: Tuesday, December 8, 2020 8:08 AM
To: Willour, Jeffrey
Cc: Pavon, Sandy
Subject: FW: Amendment Request
Attachments: Witham Mobile Unit Decom 2020.pdf

Hi,

Please process into ADAMS.

Thank you
Taehoon

From: Tomczak, Tammy <Tammy.Tomczak@nrc.gov>
Sent: Tuesday, December 08, 2020 7:42 AM
To: Song, Taehoon <Taehoon.Song@nrc.gov>; Pavon, Sandy <Sandy.Pavon@nrc.gov>
Subject: FW: Amendment Request

Good morning, Tae and Sandy,

Can you please add the attached to ADAMS?

Thanks,
Tammy

From: Bryce Caudle <bcaudle@mpcphysics.com>
Sent: Tuesday, December 08, 2020 7:38 AM
To: Tomczak, Tammy <Tammy.Tomczak@nrc.gov>
Subject: [External_Sender] Amendment Request

Tammy,

I have an amendment request attached for one of the hospitals I service. I am emailing it so that I can request that the reviewer assigned contact me when they receive it. The request is for the removal of a temporary area of use, which is a mobile truck the facility is paying for by the week. I am hoping to either get approval for the hospital to release the truck now that the survey has been completed or for the request to be processed quickly so that they can release it. I realize this is an unusual way to send in an amendment request but the cost for the facility is fairly high so the sooner we can get something worked out the better.

Thanks!
Bryce Caudle
Medical Physics Consultants, Inc.