



Northeastern Vermont Regional Hospital, Inc.

1315 Hospital Drive | PO Box 905 | St. Johnsbury, Vermont 05819  
802.748.8141 | www.nvrh.org

March 25, 2008

From: Paul R. Bengtson, CEO

*142282*

To: US Nuclear Regulatory Commission  
Region 1, 475 Allendale Road  
King of Prussia, PA 19406-1415

*03010721*

Ref: License No. 44-16262-01

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Subject: Notification for Nuclear Medicine Department space change

We are in the process of building an addition to our existing facility and will be moving Nuclear Medicine into new space in approximately 6-7 months.. The move is part of a consolidation project to bring all Diagnostic Imaging services to one area, which will free-up space for other hospital needs. Our Nuclear Medicine department performs mostly diagnostic imaging services with an occasional hyperthyroid therapy.

Enclosed you will find drawings which show the existing Nuclear Medicine department and its new location(ATTACHMENT #1). Essentially the Nuclear Medicine section will move north, down a hallway for approximately 112 feet and west 80 feet of where it is now located. In vacating the present space nuclear medicine personnel will obtain multiple area surveys and wipe tests of the "Hot Lab", imaging, stress and bathroom areas and will maintain records of these wipes permanently. Should any survey or wipe demonstrate removable contamination ,that area will be held vacant until further surveys, after decay or decontamination procedures are completed, are negative for removable contamination.

Enclosed you will also find drawings representative of locations where radiation surveys (ATTACHMENTS #2 & 2A) wipe tests (ATTACHMENTS 3 &3A) will be performed in the new area. We do not perceive significant changes in our Nuclear Medicine program and expect trigger levels to remain as they are now, for wipes and surveys. You will note the three inside walls of the "Hot Lab" will contain 1/16" of lead in the walls(See Attachments 2A and #A). There will be nothing above the new Nuclear Medicine area. Only HVAC equipment will occupy the space directly beneath it. Active and long term decay, reference source storage and dose preparation areas will also utilize lead shielding as before. The new space for Nuclear Medicine, as you will see on the drawings, is located on an outside wall and at the end of the building.

We are seeking approval for this new space designation and, as always, expect to fully comply with all pertinent Nuclear Regulatory Commission rules and regulations. If you have questions, or need more information, please contact Bradley Collette, RT(N), our Radiation Safety Officer at (802) 748-7447.

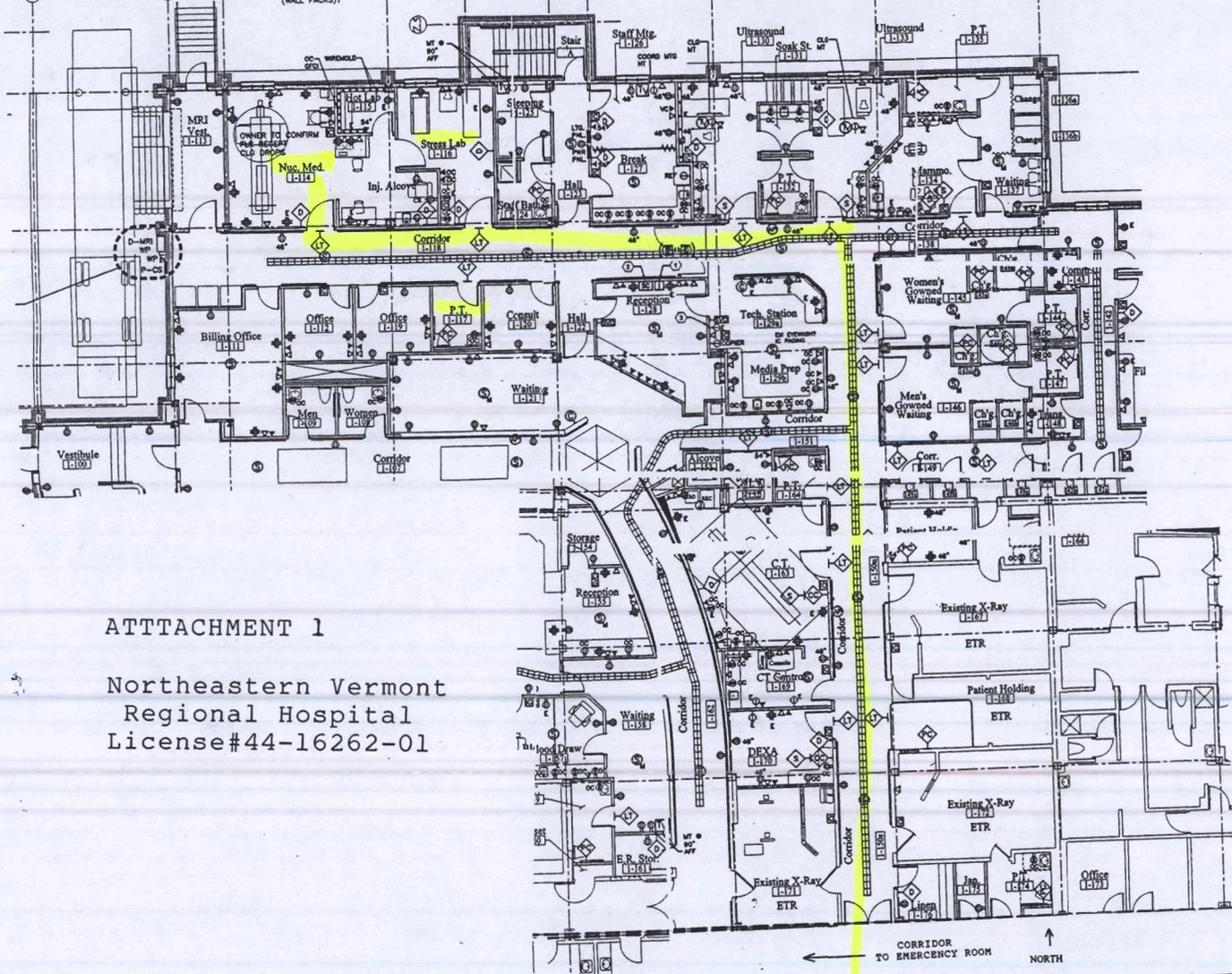
I thank you in advance for your review of this matter.

Sincerely,

Paul Bengtson, CEO

*142282*

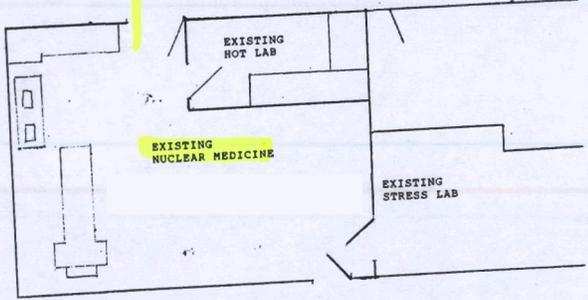
NMSS/RGN1 MATERIALS-002



ATTACHMENT 1

Northeastern Vermont  
Regional Hospital  
License#44-16262-01

1 Upper Level  
B1.2 Scale 1/8"=1'-0"





## NUCLEAR MEDICINE

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Revised: 3/18/08 bc

**PROTOCOL FOR:** AREA SURVEYS

**PURPOSE:** TO DETECT AREAS WHICH MAY HAVE BECOME CONTAMINATED DURING THE COURSE OF THE DAY'S WORK.

TO ASSURE MINIMAL RADIATION EXPOSURES TO TECHNOLOGISTS, PATIENTS AND OTHER HOSPITAL WORKERS AND VISITORS.

**EQUIPMENT:**

- 1) LUDLUM MODEL 14C, SN 92291- Primary Meter
- 2) Ludlum Model 14c, SN 214855(Backup)
- 3) BICRON SURVEYOR 2000 SURVEY METER, SN 1581B  
(Backup- *limited use due to limited upper range*)

**PROCEDURE:**

- 1) Check for proper instrument reading by verifying your daily spot source reading against the most recent calibration finding, located on instrument side. Record findings in the PINESTAR Nuclear Medicine Information System(NMIS). This result will be printed out, along with daily/weekly survey findings, on the NMIS Daily Report.

If spot check is outside +/-10%, **DO NOT USE METER**, report findings to RSO. Find substitute meter to use.

- 2) *DAILY* surveys must be performed on areas where radiopharmaceutical preparation, receive/sendback, injection, scanning and bathroom use occur. (See accompanying maps)
- 3) *WEEKLY* surveys are made of areas where active decay/storage and expiring inventory exists, in addition to the daily survey areas.
- 4) Results of daily and weekly surveys are to be entered into the Pine-Star NMIS and printed out as part of the daily report at the end of the day.
- 5) *ALL* results **above** TRIGGER LEVELS are to be reported to the RSO or, if unavailable, the RADIOLOGIST on duty IMMEDIATELY. ALL AREAS ABOVE TRIGGER LEVELS must be decontaminated, marked and/or clearly labeled as contaminated and left for decay if not decontaminated, and a "CONTAMINATION REPORT" filed before the end of the working day.
- 6) Direct all questions concerning this procedure to the RSO.

DAILY SURVEYS shall include:

Dose Preparation Area(#1)      Trigger Level = 0.05mR/hr  
Receive/Sendback Area(#2)      Trigger Level = 0.05mR/hr  
Scanning and Injection Areas(#3) Trigger Level = 0.05mR/hr

Bathroom used by patients(#4)      Trigger Level = 0.05mR/hr  
CARDIAC STRESS ROOM - on those days that injections were  
performed in that area.(#5)      Trigger Level = 0.05mR/hr

WEEKLY SURVEYS shall include:

**ALL DAILY SURVEY AREAS and**

Active Storage Area(#6)      Trigger Level = 5.0mR/hr  
Long Term decay barrel.(#7)      Trigger Level = 0.05mR/hr

APPROVED: Bradley P. Collette      DATE: 3/24/08  
Bradley P. Collette, RSO, A.S., NMT

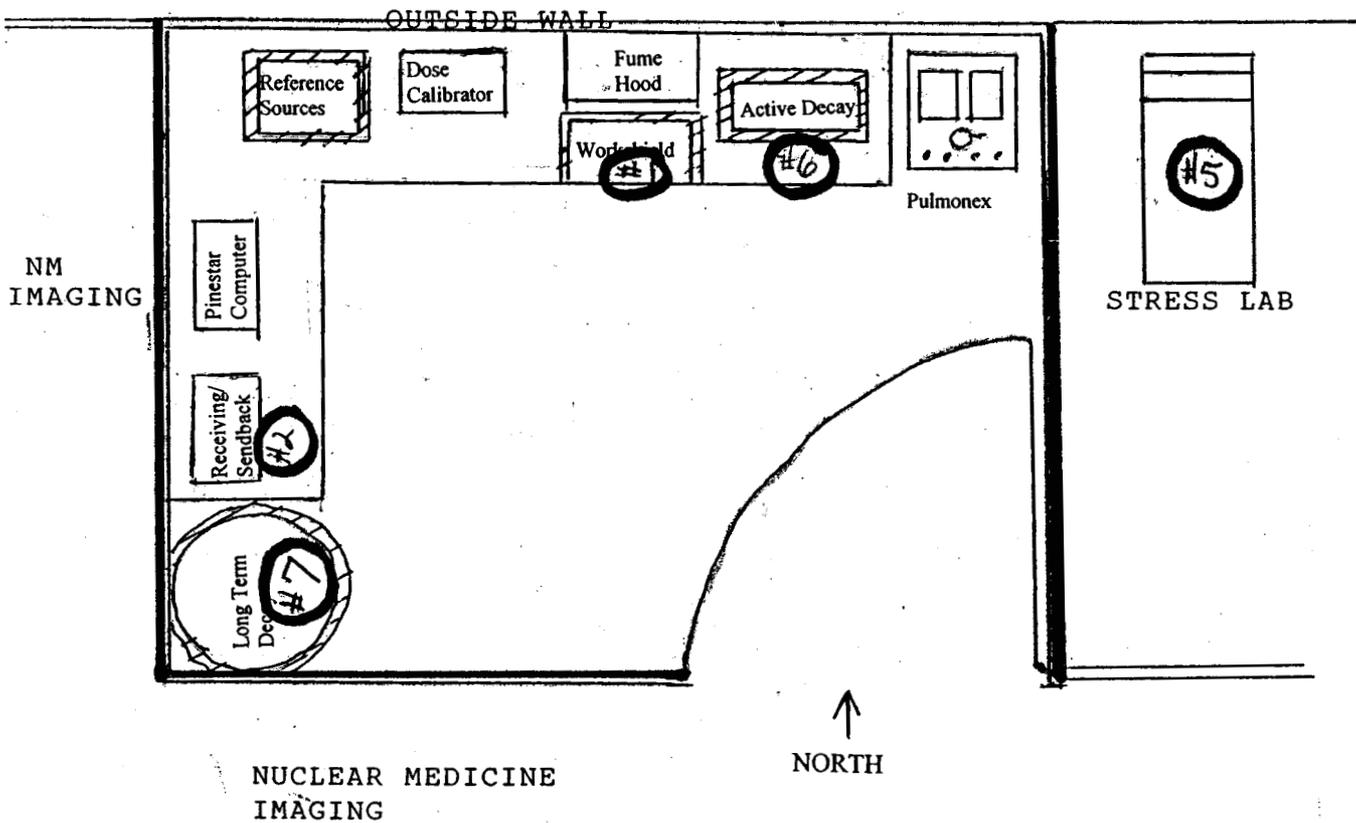
Reviewed with staff: 3/27/08

Reviewed by Radiation Safety Committee 3/27/08  
Date

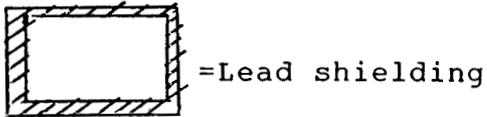


ATTACHMENT 2A

Northeastern Vermont Regional Hospital  
Department of Nuclear Medicine  
NRC Byproduct License #44-16262-01



The three inside "hot lab" walls contain  $\frac{1}{16}$ " lead





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### NUCLEAR MEDICINE

#### **PROTOCOL FOR:** WIPE TESTS FOR REMOVABLE CONTAMINATION

**PURPOSE:** TO DETECT AREAS WHICH MAY BE CONTAMINATED WITH REMOVABLE RADIOACTIVE MATERIAL DURING THE COURSE OF THE WEEK'S WORK.

TO ASSURE MINIMAL RADIATION EXPOSURE TO TECHNOLOGISTS, PATIENTS, OTHER HOSPITAL WORKERS AND VISITORS.

**EQUIPMENT:** ATOMLAB 950 WELLCOUNTER AND PROBE  
SERIAL NUMBER 0408004

**PROCEDURE:** Wipe tests shall be obtained on a weekly basis of the areas indicated on the room diagram, see Wipe Test Map.

A "Wipe Sample" of a 4"x4"(100cm<sup>2</sup>) will be obtained using an alcohol prep pad. This "wipe" will then be placed in a test tube for counting in the Well Counter.

The Well Counter will be shall be calibrated daily by using the Cs-137 Rod source. A room background count shall be obtained at the beginning of each working day. Records of "daily calibration" and "background" shall be maintained for a minimum of three years. Wipes are counted on the "Wide Window" setting. The Wipe Results Report document the Isotope(wide window), Trigger(100% of NRC guidelines of 20000dpm, Background, Count time and Net Activity of the removable contamination.

**RESULTS:** Results of Wipe Test data shall be stored on the Pinestar, Nuclear Medicine Information System(NMIS) and printed daily reports are available in the REPORTS LOG.

**“WIPES” shall include:**

- 1) Dose Preparation area
- 2) Receive/Sendback area
- 3) Decay/Storage area
- 4) Inject/Imaging room
- 5) Inject/Treadmill
- 6) Imaging Table
- 7) Patient Toilet

Revised: 3/18/08 Bradley Collette, RSO

Reviewed with Nuclear Medicine Staff on:

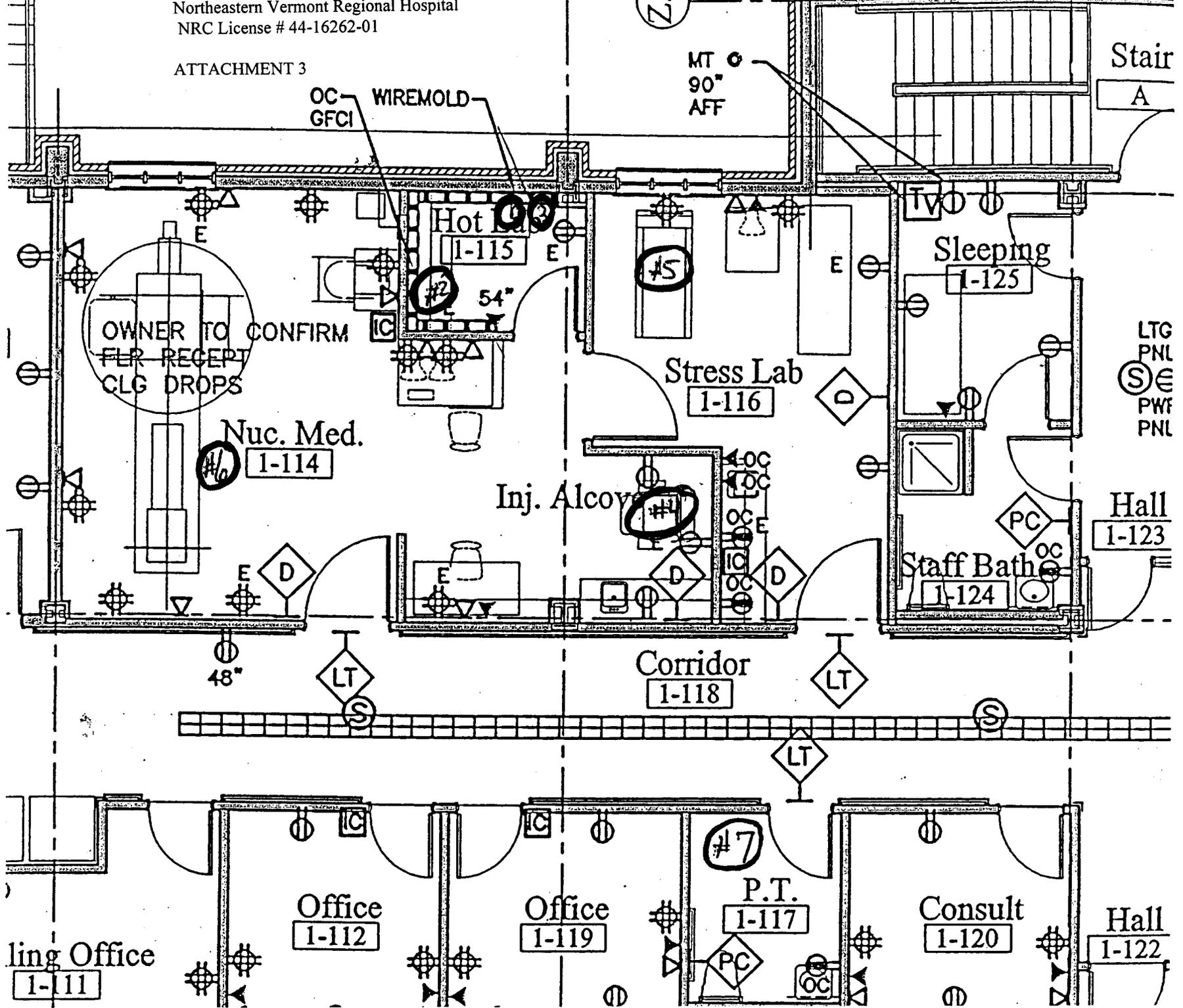
3/27/08

Reviewed by Radiation Safety Committee on:

3/27/2008

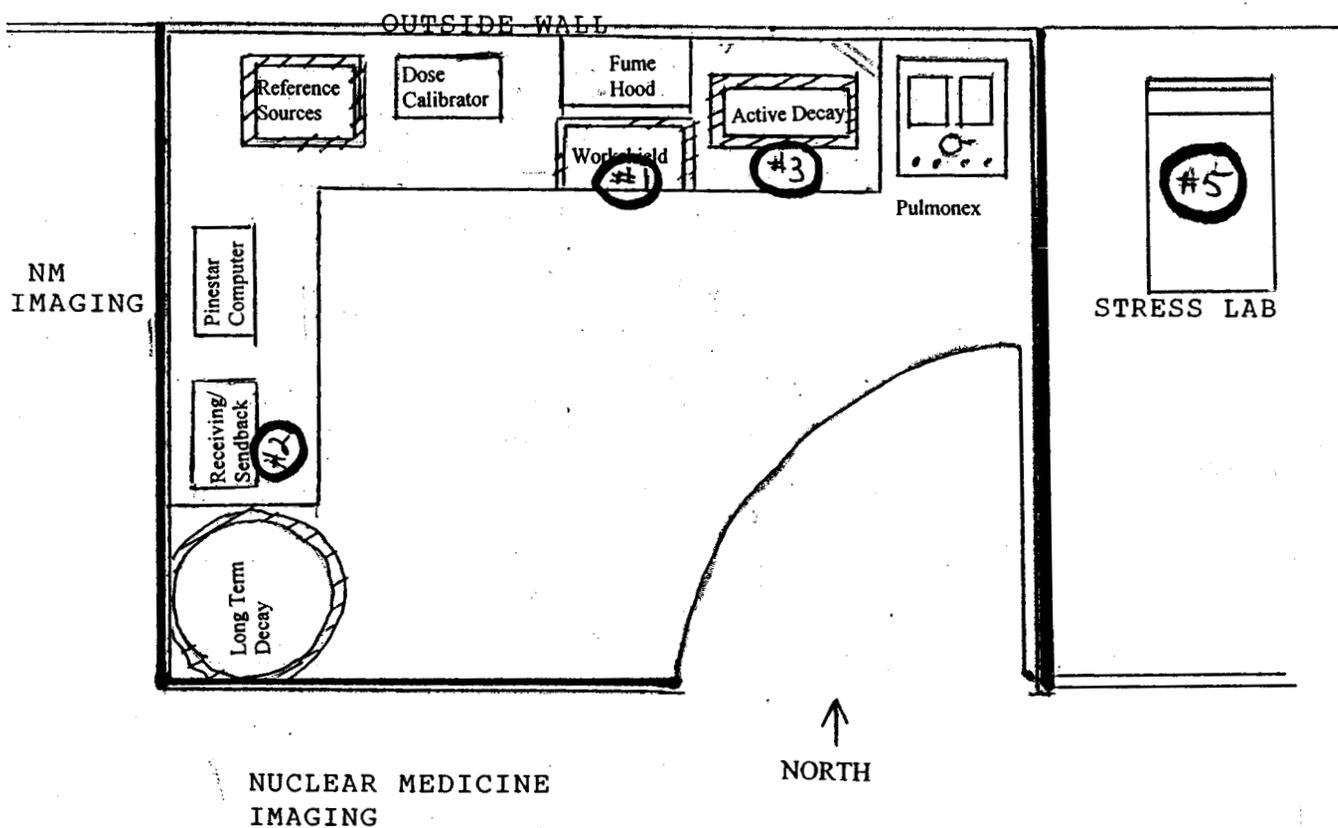
Date

ATTACHMENT 3

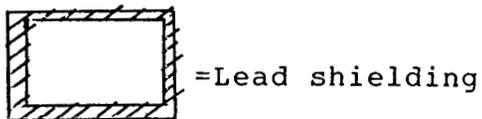


Northeastern Vermont Regional Hospital  
NRC License # 44-16262-01

ATTACHMENT 3A



The three inside "hot lab" walls contain  $\frac{1}{16}$ " lead



0701

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

3/25/2008, and to inform you that the initial processing which includes an administrative review has been performed.

APPROX. 44-16262-01 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** 142282.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.