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FAUQUIER HOSPITAL

K-8

FACSIMILE TRANSMITTAL SHEET

TO:	FROM:
Sandra Gabriel	Leisa Hirtle (Fauquier Hospital)
COMPANY: NRC	DATE: 7/17/2008
FAX NUMBER: 610-337-5269	TOTAL NO. OF PAGES INCLUDING COVER: 5
PHONE NUMBER:	

RE: **Mail Control 142357**

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

Ms. Gabriel,

Please find attached copies of the Hot Lab close out surveys for May 3, 2005 and June 20, 2005.

If you have any questions, please feel free to contact me via email or telephone.

Thank you,

L Hirtle

Leisa Hirtle

Hirtlel@FauquierHospita.org

540-316-4567

142357

NRC/ORIGINAL MATERIALS-002

DIAGNOSTIC MEDICAL HEALTH PHYSICS

PO BOX 563 NELLYSFORD, VIRGINIA 22958
434 361-9100 FAX 434 361-1344 e-mail: dmhpphysics@aol.com

May 3, 2005

Ms. Leisa Hirtle
Department of Nuclear Medicine
Fauquier Hospital
500 Hospital Drive
Warrenton, Virginia 22186

Dear Ms. Hirtle,

On May 3, 2005. a closeout survey was performed in the former Hot Lab and Skylight camera room following the removal of all equipment and radioactive material.

The survey consisted of survey meter readings performed with a Ludlum 14C #214829 with pancake probe (last calibration 02-05) (range 0.01-2000 mR/hr) and a Ludlum 2221 scintillation counter #65840 (last calibration 12-04). Ever square foot of the camera and hot lab room as well as all cabinets and work counters was surveyed with the Ludlum 14C with no detectable reading greater than background (0.02 mR/hr). A total of 73 wipes were performed (approx 1 per $(3ft)_2$) in both the hot lab and camera room. Results indicate that no wipe was in excess of the established background of (257 cpm or 2852 dpm with 11.1% efficiency).

The room may now be released to the general population for renovation. A copy of the floor plan and location of the wipe and survey areas will follow under a separate cover. In addition the efficiency data and conversion factors for wipe test results will accompany that diagram. Upon receipt, attach the information to this letter and maintain the report for review by regulatory officials.

If you have any questions or if I may be of further assistance, please contact me at your convenience.

Sincerely,

P. Norman Fenton, Ph.D.
Radiation Health Physicist

DIAGNOSTIC MEDICAL HEALTH PHYSICS
P.O. Box 563 - Nellysford, Virginia 22958
434-361-9100 - (FAX) 434-361-1344 e-mail: dmhpphysics@aol.com

June 20, 2005

Ms. Leisa Hirtle
Department of Nuclear Medicine
500 Hospital Drive
Warrenton, Virginia
22186

Dear Ms. Hirtle,

On June 14, 2005, the nuclear medicine staff conducted a wipe/leak test closeout survey of the Vertex and Hot Lab areas of the former Nuclear Medicine department at Fauquier Hospital, in Warrenton, Virginia. All survey meter readings were less than or equal to Bkg. mR/hr.

The wipes were counted using a Ludlum Model 2221 Rate meter with a 44-2 scintillation probe.

Efficiency response for Co-57 (122 keV) and Cs-137 (662 keV) were determined and documented in the report. Correction factors for converting observed cpm to dpm were determined and the lowest efficiency response (Cs-137) 6.27% was used to convert all wipes.

The results indicate that all wipes were within the acceptable limits of 200 dpm above background and that no residual contamination was present. The rooms may be released to general population use.

Please maintain a copy of this report for review by regulatory officials.

If you have any additional questions or if I may be of further assistance, please contact me at your convenience.

Sincerely,

P. Norman Fenton, Ph.D.
Radiation Health Physicist

Sealed Source Leak Test/Inventory Con't

The previous referenced sources were leak tested and analyzed utilizing a Ludlum Model 2221 Rate Meter with a 44-2 scintillation probe. The unit was calibrated at the time of the survey in accordance with the manufacturer's recommendations.

Cesium 137 and Cobalt 57 sources were utilized as reference standards

Cs-137 Calibration Activity: 1.12 uCi as of 12-03-1988
Activity as of: 6/20/2005 0.7668 uCi = 1700161 dpm

Co-57 Calibration Activity: 50 uCi as of 07-01-1995
Activity as of: 6/20/2005 0.0076 uCi = 16878 dpm

Bkg.: 155 Minimum Dectable Activity = 37.3

Gross Counts of Cs-137 Calibration Source = 106798 cpm Net cpm = 1E+05

Gross Counts of Co-57 Calibration Source = 2645 cpm Net cpm = 2490

Cs-137 $\frac{106643}{1700161.18}$ = 6.27 % eff.

Co-57 $\frac{2490}{16878}$ = 14.75 % eff.

Leak 8 cpm

All observed cpm were multiplied by: 15.943 ***to obtain dpm***

net wipe cpm above bkg.

HOT LAB

Leak 1-5 cpm =	0	=	0 dpm *	Leak 6-10 cpm =	0	=	0 dpm *
Leak 11-15 cpm =	0	=	0 dpm *	Leak 16-20 cpm =	0	=	0 dpm *
Leak 21-25 cpm =	0	=	0 dpm *	Leak 26-30 cpm =	0	=	0 dpm *
Leak 31-35 cpm =	0	=	0 dpm *	Leak 36-40 cpm =	0	=	0 dpm *
Leak 41-42 cpm =	0	=	0 dpm *				

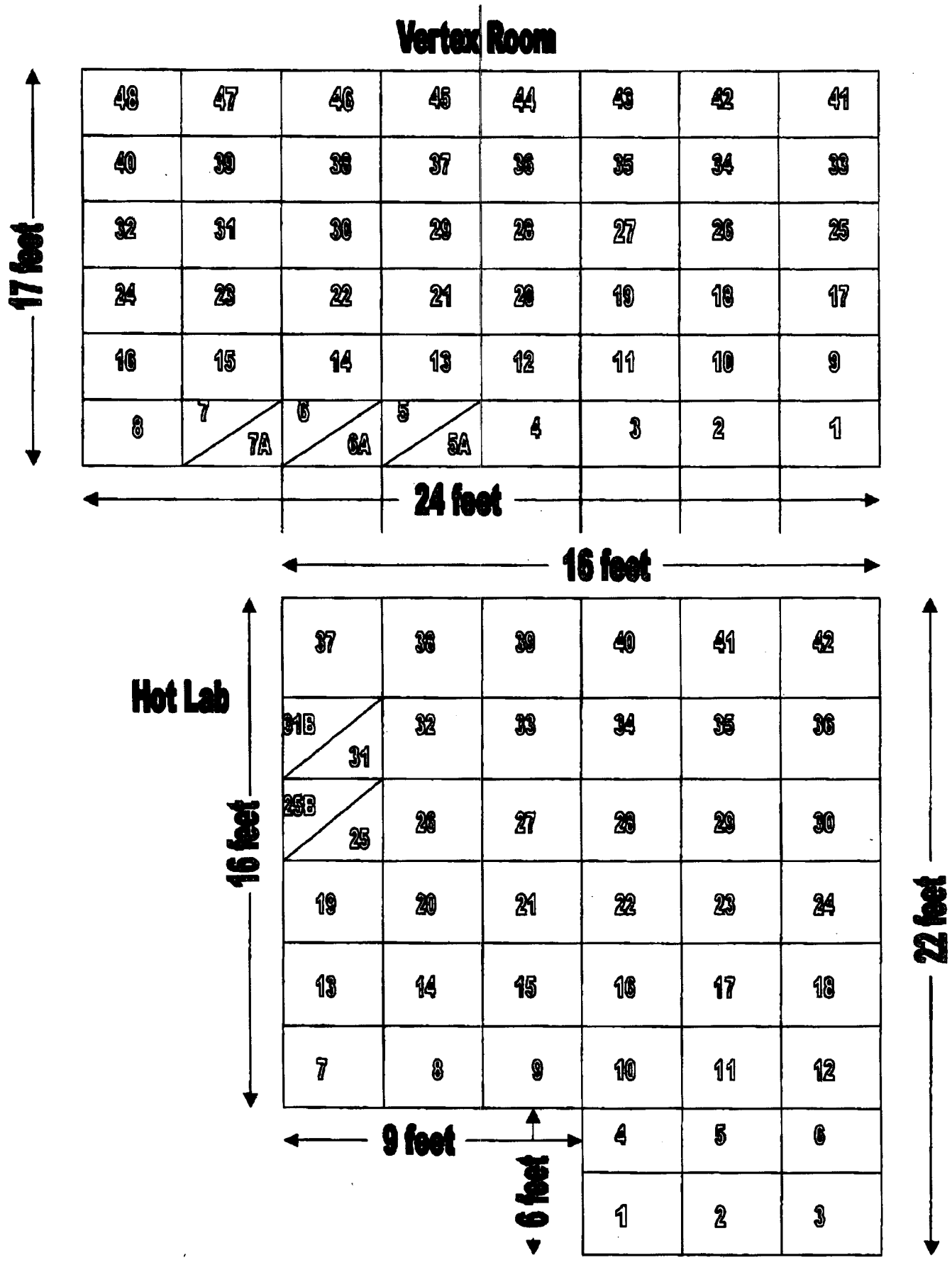
VERTEX ROOM

Leak 1-5 cpm =	0	=	0 dpm *	Leak 5A-7A cpm =	0	=	0 dpm *
Leak 6-10 cpm =	0	=	0 dpm *	Leak 11-15 cpm =	0	=	0 dpm *
Leak 16-20 cpm =	0	=	0 dpm *	Leak 21-25 cpm =	0	=	0 dpm *
Leak 26-30 cpm =	0	=	0 dpm *	Leak 31-35 cpm =	0	=	0 dpm *
Leak 36-40 cpm =	0	=	0 dpm *	Leak 41-45 cpm =	0	=	0 dpm *
Leak 46-48 cpm =	0	=	0 dpm *				

(*) Within allowable limits established by the NRC & the Commonwealth of Virginia

(Maximum removable contamination allowed by the State and/or NRC for leak testing = 0.005 uCi above background) 0.005 uCi = 11,100 dpm above background. The maximum net dpm above background for the above wipes was = 0 dpm > background

P. Norman Fenton, Ph.D.
Radiation Health Physicist


Vertex Room
48 47 46 45 44 43 42 41
40 39 38 37 36 35 34 33
32 31 30 29 28 27 26 25
24 23 22 21 20 19 18 17
16 15 14 13 12 11 10 9
8 7 7A 6 6A 5 5A 4 3 2 1
17 feet
24 feet
16 feet
Hot Lab
37 38 39 40 41 42
31B 31 32 33 34 35 36
25B 25 26 27 28 29 30
19 20 21 22 23 24
13 14 15 16 17 18
7 8 9 10 11 12
4 5 6
1 2 3
16 feet
9 feet
6 feet
22 feet