FRANKLIN & MARSHALL

June 28, 2007

NMSS 2

U. S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

Dear Sir or Madam:

03017052

Please find enclosed a copy of the "Survey Report for Release of Premises for Unrestricted Use" for three rooms (rooms 214, 304, and 306 in Fackenthal Laboratories) covered under U. S. NRC License Number 37-11185-04 which has been submitted to the Division of Fuel Cycle Safety and Safeguards.

If you have any questions please contact me at (717) 291-3809 or linda.fritz@fandm.edu.

Sincerely,

Linda S. Fritz

Linda S. Fritz, PhD
Radiation Safety Officer

/enclosure

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REGION 1
2007 JUL -2 PM 2:43

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NMSS/RGN1 MATERIALS-002

DEPARTMENT OF PHYSICS AND ASTRONOMY FRANKLIN & MARSHALL COLLEGE P.O. BOX 3003 LANCASTER, PENNSYLVANIA 17604-3003
OFFICE: 717.291.4136 FAX: 717.358.4474 WEB: WWW.FANDM.EDU/PHYSICS.XML

Division of Fuel Cycle Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: U. S. Nuclear Regulatory Commission License Number 37-11185-04

Survey Report for Release of Premises for Unrestricted Use

Planned date of release: August 1, 2007

a) Rooms to be released for unrestricted use: Rooms 214, 304, and 306 in Fackenthal Laboratories
Franklin & Marshall College
Main Campus, off Harrisburg Pike
Lancaster, PA 17603

b) No contamination was found.

c) and d) Surveys and Wipe Tests and Results

Surfaces were surveyed using a Dosimeter Corporation model # 3007A survey meter with a model # 360 probe. The meter and probe were calibrated by Dosimeter Corporation on December 20, 2006. Background fluctuations were generally from 0.00 to 0.15 mrad/h. There were no readings above 0.20 mrad/h.

Wipe tests were done on lab bench tops, sinks, sink drains, and in hoods in each room. The wipes were measured using a model 500 nuclear scalar from The Nucleus with a Geiger-Mueller tube with a 1.25 inch diameter thin mylar end window. The tube and scalar were calibrated using a $1.2 * 10^4$ dpm ^{14}C source. This source was covered such that only one sixteenth of the area was open to the counter, giving an effective source strength of 750 dpm. In a sample of five one-minute trials the average count rate was 36 cpm above background. Therefore 1000 dpm corresponds to 48 cpm above background. The average one-minute background count rate in the rooms where the wipes were counted was 22 cpm, giving a minimum detectable count rate of $MDCR(95\%) = 3.29\sqrt{\frac{R_{background}}{t_{background}} + \frac{R_{background}}{t_{sample}}} = 4.65\sqrt{R_{background}} = 23 cpm$ above background. This MDCR corresponds to 479 dpm. The highest count rate measured was 14 cpm above background.

(over)

The isotopes used in these rooms are as follows:

Room	Isotope	Maximum activity at any one time
214	^{3}H	100 μCi
	^{14}C	100 μCi
304	^{3}H	50 μCi
	^{14}C	100 μCi
	^{125}I	100 μCi (not used in over 10 years)
306	^{3}H	100 μCi
	^{14}C	50 μCi
	^{32}P	50 μCi
	^{86}Rb	10 μCi

Submitted on June 28, 2007
by: Linda S. Fritz, PhD, Radiation Safety Officer
Franklin & Marshall College
Lancaster, Pennsylvania 17603

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

6/28/2007, and to inform you that the initial processing which includes an administrative review has been performed.

☑ Amend. 32-11185-04
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** 140753.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader