

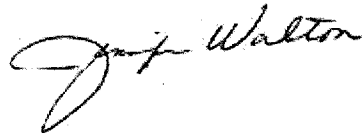
May 9, 2017

United States Nuclear Regulatory Commission,  
Region III  
ATTN: Michael LaFranzo  
Re: Control Number 593032

Mr. LaFranzo,

I am writing to follow-up on your request for additional information for the Central Michigan University application for a license amendment. The information you requested is attached. Let me know if you have any further questions. My phone number is (989) 774-4189.

Sincerely,



Jennifer Walton, Ph.D., CIH  
Radiation Safety Officer/Director of the Office of Laboratory and Field Safety  
Foust 104  
Central Michigan University  
Mount Pleasant, MI 48859

**Responses to NRC Request for Additional Information:**

1. The sealed source Am-Be was never used or stored in Brooks Hall or CART Building. The sealed source Pu-Be was never used or stored in CART Building, but historically, it was stored and used in Brooks Hall.
2. The final leak test result for the Pu-Be source (serial # 800-P-8) is attached. It was conducted when the source was removed from the neutron howitzer for transfer to Los Alamos National Laboratory, Off-Site Source Recovery Project.
3. Cloth disc smears and total surface activity measurements were not performed on internal surfaces of drain traps, vacuum piping, and small diameter ventilation exhausts. Due to the small geometry of the piping, it was not possible to insert a radiation detector probe nor to collect a cloth disc smear; therefore, only liquid scintillation swabs were collected. That is why information is lacking in several sections of Appendix G of the Brooks Hall report. Liquid scintillation swabs are capable of detecting both alpha and beta radioactivity. The exterior portions of these systems are included in the scanning protocol.

Leak Test of the Plutonium-239/Beryllium Source			Serial # 800-P-8			
Date of LSC Analysis	6-May-03					
C14 Standard DPM:	108817					
Lot:	CGH0308					
Ref:	14-Sep-95					
Exp.:	14-Sep-10					
<b>Plutonium 239 Efficiency = 100% per the user 11 program and Beckman Instruments</b>						
*Wipe #	cpm from wipe sample	cpm from background	Efficiency in cpm/dpm	dpm on wipe sample	µCi on wipe sample	Result
C	97	97	1	0	0.00000	ok
1	94	97	1	-3	0.00000	ok
2	94	97	1	-3	0.00000	ok
3	83	97	1	-14	-0.00001	ok
4	110	97	1	13	0.00001	ok
* Note:						
	C Blank control, cotton swab					
	1 Cotton swab of the outside of the aluminum can					
	2 Cotton swab of the plutonium source					
	3 Cotton swab of the inside of the howitzer					
	4 Cotton swab of the inside of the aluminum can					

*Jennifer Walker*  
*RSO*  
 5/14/03

ID: SCHEIDE SCREEN

6 MAY 2003 10:26

USER: 11

COMMENT: COMPARTMENTAL COUNTING

PRESET TIME : 10.00  
 DATA CALC : CPM H# : YES SAMPLE REPEATS: 1 PRINTER : STD  
 COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 : OFF  
 TWO PHASE : NO AGC : NO CYCLE REPEATS : 1  
 SCINTILLATOR: LIQUID LUMEX: NO LOW SAMPLE REJ: 0  
 LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 0.0 - 400.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0  
 CHAN: 0.0 - 670.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0  
 CHAN: 0.0 - 1000.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1		WIND2		WIND3		LUMEX %	ELAPSED TIME	
				CPM	%ERROR	CPM	%ERROR	CPM	%ERROR			
1	**1	10.00	75.8	41.70	9.79	62.90	7.97	97.10	6.42	2.42	10.60	Cont.
2	**2	10.00	92.3	34.20	10.81	55.50	8.49	93.80	6.53	2.09	21.25	1
3	**3	10.00	83.8	38.50	10.19	60.30	8.14	93.60	6.54	2.40	31.93	2
4	**4	10.00	116.8	29.60	11.62	53.00	8.69	82.40	6.97	3.77	42.62	3
5	**5	10.00	87.5	56.40	8.42	78.60	7.13	110.30	6.02	18.41	53.47	4
6	**6	10.00	2.7	17.40	15.16	29.40	11.66	49.20	9.02	0.13	64.14	BKG
7	**7	0.30	-1.8	39720.00	1.83	40476.66	1.81	40500.00	1.81	0.00	64.98	H3
8	**8	0.55	-1.3	19074.54	1.95	104436.4	0.83	105076.4	0.83	0.00	66.09	CH

INSTRUMENT CALIBRATION: Maxi 6 MAY 2003 10:25  
Calibration successful