

**Wright State
University**

Department of Safety
Dayton, Ohio 45435

513/873-2115 2215

RECEIVED BY LFMB	
Date	7/3/85
Log	July 31H
By	[Signature]
Orig. To	[Signature]
Action Compl	[Signature]

April 26, 1984

U.S. Nuclear Regulatory Commission
Materials Licensing Section
799 Roosevelt Rd.
Glen Ellyn, IL 60137

Madam or Sir,

This letter is submitted in application for renewal of USNRC License No. 34-11912-03, issued to the University.

The University wishes to continue operation under the provisions of this license and will continue to operate in accordance with the relevant documents, cited below, applicable USNRC regulations and License conditions.

Documents listed in License condition 20 that remain relevant to the current radiation safety and material control program are:

Application dated August 3, 1978
Letters dated March 5, 1981
October 12, 1982
December 1, 1982
March 4, 1983
April 22, 1983
October 7, 1983

Radiation Safety Manual dated August 1983

Those superseded are:

Radiation Safety Manual dated 1978
Letter dated March 20, 1979
Application dated August 31, 1979
Letters dated September 17, 1980
April 7, 1982
July 6, 1982

In addition to the above, the following changes have recently occurred and should be reflected in license documentation:

By Provost's memorandum dated April 3, 1984, Dr. Albert E. Langley, Associate Professor and Chairman of Pharmacology and Toxicology has been appointed as member and chairman of the University Radiation Safety Committee. This

8508130287 850709
REG3 LIC30
34-11912-03 PDR

CONTROL NO. 7 924 1

FEE EXEMPT

APR 30 1984

RECEIVED
REGION III

results in partial revision of the letter dated April 22, 1983. A copy of the Provost's memorandum and Dr. Langley's credentials relevant to his appointment are enclosed (enclosures 1 and 2).

Due to replacement of radiation survey and assay equipment that is available for use for radiationsafety purposes, item 10 of Appendix D to the application of 1978, last updated by letter dated March 4, 1983, should be updated by substitution of the enclosed listing (enclosure 3). No significant alteration of radiation survey and assay capability is reflected in the updated listing.

Reflecting the changing education and research mission of the University School of Medicine at the V.A. Medical Center, the lease designating University control of space at the center has been amended to add portions of V.A. Building 315 and to delete portions of V.A. Building 307 in which material has not been used. While material has not yet been used in these new areas, the University Radiation Safety Committee will continue to authorize material use in accord with policy previously elaborated for areas under University jurisdiction. Enclosure 4, (4 pages), is enclosed in description of areas under University control.

Enclosure 5 depicts a new laboratory complex for the radiation safety program that is nearing completion.

Besides a contained working environment, the facility will provide a centralized location for improved program efficiency and control of material receipt and distribution in support of the University Radiation Safety Program.

With the availability of this dedicated space, the J.L. Shepherd, model 28-6 calibration source is to be relocated for use and storage from the area specified in the letter dated March 4, 1983. Use and storage procedures, previously specified, remain unchanged. At a source to barrier distance of 28 feet or greater, the unattenuated beam intensity at the proximate surface of the barrier will not exceed 3.67 mR/hr. Typical use for calibration purposes involving attenuation for most procedures, a source use cycle of less than 50% and inherent barrier attenuation, will assure an exposure rate of less than 2 mR in any hour in uncontrolled areas adjacent to the laboratory.

Should any questions arise concerning this application, please do not hesitate to contact the undersigned at 513/873-2215.

Sincerely,



Bruce T. Austin, Ph.D., Consultant
University Radiation Safety Officer

BTA/sdb

Enclosures



WRIGHT STATE UNIVERSITY

OFFICE OF THE PROVOST

Provost's Memorandum April 3, 1984

No. 84-1 (Supersedes No. 83-1)

SUBJECT: University Radiation Safety Committee

Nuclear Regulatory Commission guidelines require an official announcement of University Radiation Safety Committee membership. Current members of the Committee are:

Dr. Albert E. Langley, Associate Professor,
Pharmacology and Toxicology (Chairperson)

Dr. George G. Hess, Associate Professor
Chemistry

Dr. Lawrence J. Prochaska, Assistant Professor,
Biological Chemistry

Dr. Adrian Rake, Associate Professor,
Biological Sciences

Mr. David S. Atwater, Assistant Vice President,
Facilities and General Services

Dr. Bruce T. Austin, University Radiation Safety
Officer, (Ex-officio/Non-voting member)

The University Radiation Safety Committee will report to the Provost. This memorandum supersedes Provost's Memorandum 83-1, dated April 11, 1983.

Application for Renewal
April 26, 1984

WRIGHT STATE UNIVERSITY
RADIATION SAFETY COMMITTEE

Albert E. Langley, Ph.D.
Associate Professor, Pharmacology and Toxicology

I. Education:

Ph.D. Ohio State University, 1974

II. Training:

Ohio State University
Isotopic Tracers in Biology, 3 credit hrs

III. Experience:

<u>ISOTOPE</u>	<u>WHERE USED</u>	<u>DURATION</u>	<u>TYPE OF USE</u>
^{14}C	Ohio St. University	3 years	Enzyme Assay
^{14}C	Univ. of Colorado	2 years	Enzyme Assay
^3H	Univ. of Colorado	2 years	Tracer labeling
^3H	Warner-Lambert Co.	1 year	Tracer labeling
^3H	Wright State University	6 1/2 yrs	Tracer labeling
^{125}I	Wright State University	2 years	RIAs
^{32}P	Wright State University	1 year	Enzyme Assay

IV. Previous Radiation Safety Committee Experience:

None

Application for Renewal
April 26, 1984

APPENDIX D ITEM 10

<u>TYPE INSTRUMENT</u>	<u>RADIATION DETECTED</u>	<u>COUNTING RANGE</u>	<u>WINDOW THICKNESS</u>	<u>USE</u>
<u>SAFETY DEPT.</u>				
Eberline EI20	Beta, Gamma	0-500 mR/Hr	1.4-2 mg/cm ²	GM survey meter
Eberline PAC-4G-3	Alpha	0-500,000 cpm	.85 mg/cm ²	Alpha survey meter
Ludlum 2200			7 mg/cm ²	scintillation
Victoreen 470A	Beta, Gamma	0-500,000 cpm	.093 mg/cm ²	analyzer
	x-ray	0-1000 mr/hr	w/o cap 17 mg/cm ²	
Victoreen 541R	Beta, Gamma	0-1000 r/hr	w. cap 5000 mg/cm ²	survey meter
Victoreen 855 (3)	Gamma, x-ray	0-200 mr		pocket dosimeter
Beckman LS9000	Gamma, x-ray	0-999 mr		pocket dosimeter
	Beta	0-5.6x10 ⁶ cpm		liquid scintillation counter
Victoreen 471	Alpha, Beta			
	Gamma, x-ray	0-3000 mr/hr	1.1 mg/cm ²	survey meter
Victoreen 808D	Beta, Gamma	.1-1000 mr/hr	680 mg/cm ²	area monitor
Victoreen 498 (2)	Beta, Gamma	0-1 r/hr	w/o cap	survey meter
			170 mg/cm ²	
Siersat 08-400	none	n/a	n/a	air sampler
Nuclear-Chicago	Beta, Gamma	0-1 r/hr	1 mg/cm ²	cutiepie
2592, 2593, 2594				survey meter
Victoreen 570 r-meter	x-ray	0-250 roentgens	663-213 mg/cm ²	precision ion
	Beta, Gamma		705-67 mg/cm ²	chambers
			621-576 mg/cm ²	
			651-6.1 mg/cm ²	
			154-89 mg/cm ²	
			130-212 mg/cm ²	
Ludlum Model 3 (4)	Beta, Gamma	0-200 mR/hr		survey meter
D.S. Davidson	Beta, Gamma	0-1,000,000 counts		multi-channel analyzer
<u>FELS INSTITUTE</u>				
Nuclear-Chicago	Beta, Gamma	0-100,000 cpm		planchet counter
Packard 2420A (tri carb)	Beta	0-2,000,000 cpm		liquid scintillation counter
Packard 410 (tri carb) series 314F	Beta, Gamma	0-999,999 cpm		well counter
Victoreen 498	Beta, Gamma	0-1 r/hr	170 mg/cm ²	survey meter
Packard 5110	Beta	0-999,999 cpm		liquid scintillation counter
<u>BIOLOGICAL SCIENCES</u>				
Packard 3255 (2)	Beta	0-999,999 cpm		liquid scintillation counter
Nuclear-Chicago 6770	Beta	0-499,999 cpm		liquid scintillation counter
Packard Autogamma	Gamma	0-3999,999 cpm		gamma counter
Packard B460CD	Beta	0-999,999 cpm		liquid scintillation counter

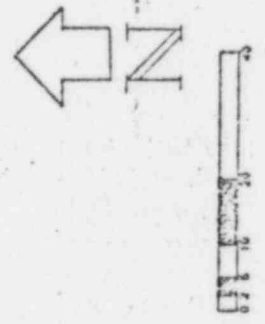
Application for Renewal
April 26, 1984

CONTROL NO. 7 924 L

Appendix D Item 10 Cont.

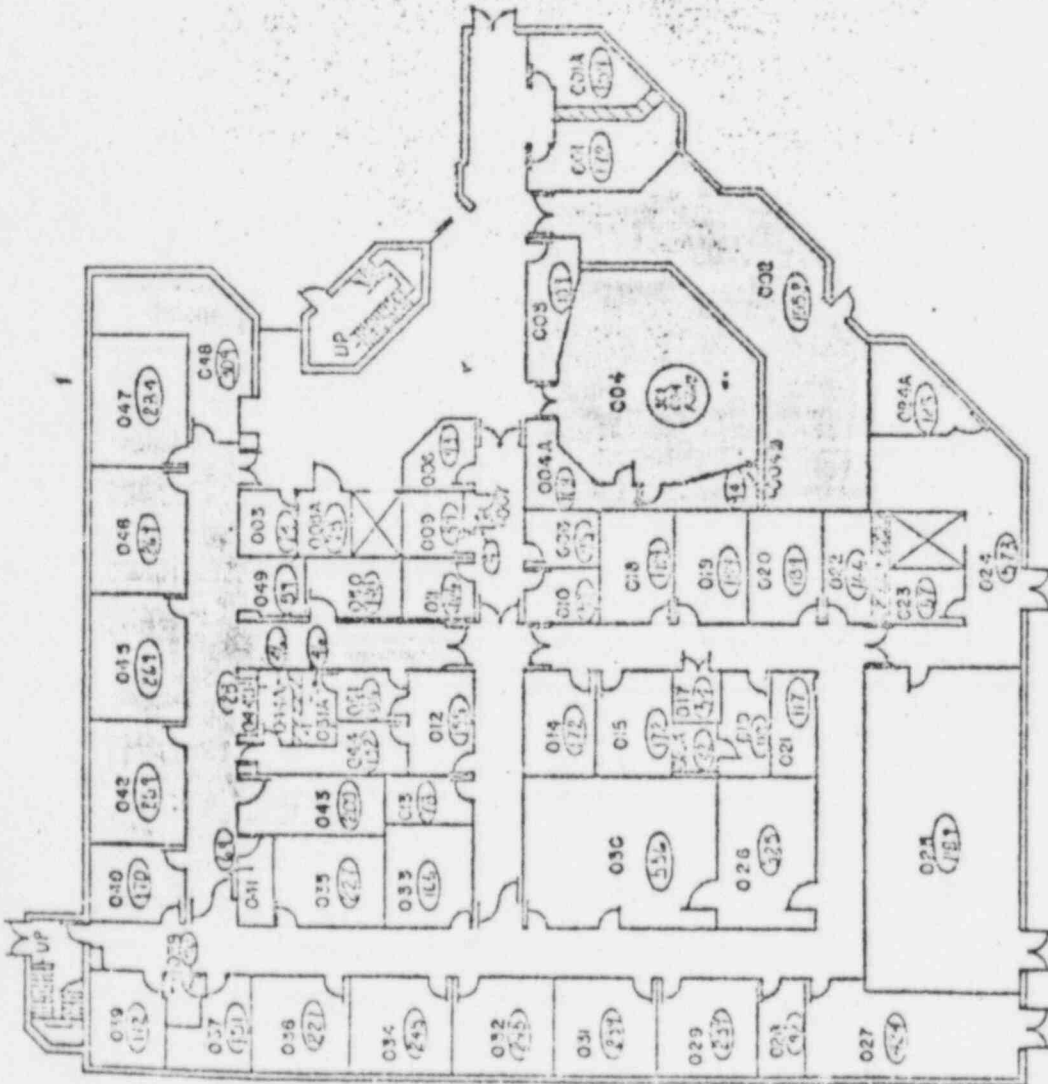
<u>TYPE INSTRUMENT</u>	<u>RADIATION DETECTED</u>	<u>COUNTING RANGE</u>	<u>WINDOW THICKNESS</u>	<u>USE</u>
<u>COX HEART INSTITUTE</u>				
Searle Delta 300	Beta	0-999,999 cpm		liquid scintillation counter
Packard 800 CD	Beta, Gamma	0-999,999 cpm		Gamma counter
Eberline rm-14	Beta, Gamma	0-50,000 cpm	30 mg/cm ²	radiation monitor
<u>PHYSICS</u>				
Xetec 501A-1	Beta, Gamma	.1-99.9 mr/hr	internal GM tube	range monitor
Victoreen 808D	Gamma	.1-1000 mr/hr	internal GM tube	area monitor
Nuclear-Chicago Labitron	Beta, Gamma	0-20,000 cpm		counter
Victoreen Fricker Model 495-5	Beta, Gamma	0-500 x 10 ³ cpm		survey meter
<u>MICROBIOLOGY & INNUNOLOGY</u>				
Packard 3255	Beta	0-999,999 cpm		liquid scintillation counter
Abbott Auto Logic (2)	Gamma	0-999,999 cpm		well counter
Eberline E120	Beta, Gamma	0-500 mr/hr	30 mg/cm ²	survey meter
<u>ENVIRONMENTAL HEALTH</u>				
Eberline E530	Beta, Gamma	0-200 mr/hr	30 mg/cm ²	survey meter
<u>CENTRAL STORES</u>				
Eberline E120	Beta, Gamma	0-500 mr/hr	30 mg/cm ²	survey meter
<u>CHEMISTRY</u>				
Nuclear Supplies SA-250	Beta, Gamma	0-999,999 cpm		GM counter
<u>BLDG. 307 V.A. CENTER</u>				
Beckman LS3011	Beta	0-999,999 cpm		liquid scintillation counter
Beckman Gamma Mate	Gamma	0-99,999 cpm		single well counter
<u>GEOLOGY</u>				
Victoreen 498 (2)	Beta, Gamma	0-1 r/hr	170 mg/cm ²	survey meter
<u>PHARMACOLOGY</u>				
Packard Prias Model P1	Beta	0-9,999,999 cpm		liquid scintillation counter

Application for Renewal
April 26, 1984



1	6/11/72	DATE	7/72
REVISION NO.	DATE	APPROVED	SCALE 1" = 20'-0"
WRIGHT STATE UNIVERSITY			
TITLE			
BASIC SCIENCE TEACHING ADDITION			
FIRST FLOOR PLAN V.A. CENTER			
ELDG. ³ U635 V.A. 35			
DWG NO.	BY	C.G.	
179			

REVISION NO.	DATE	TITLE
		WRIGHT STATE UNIVERSITY
TITLE		
BASIC SCIENCE TEACHING ADDITIO		
GROUND FLOOR PLAN V.A. CENTER		
BLDG. V U635 V.A. 315		
DWG NO.	SY	APPROVED
1510	CG.	
		DATE
		7/7/31



SQUARE FOOT AREAS					
GROSS	NET AREAS	CURTAIN	CIRCULAR TOWER	STAIR TOWER	MICHELI
10330	3014	166	4700	3182	HUNDRED 2520 UNQUANTIFIED 2619 TOTAL 5139
40105	19499	264	8893	6104	MICHELI 5894 UNQUANTIFIED 2619 TOTAL 8513

CONTROL NO. 7 924

Application for Renewal

8-4-11 26 1001

(5.5 T.A)



REVISION NO.	DATE	TITLE	
		WRIGHT STATE UNIVERSITY	
		FIRST FLOOR	
		EDUCATION BLDG. VA. CENT	
		SCHOOL OF MEDICINE VA	
DWG NO.	BY	APPROVED	DATE
1670	K.P.		1-20-60

SQUARE FOOT AREAS						
	NET CAPTAINABLE		CUSTOMER	CIRCULAR FLOW	SPRING TOTAL	MECHANICAL
	CATCH					
CENTER	13,027	8,653	48	2658	815	NUMBERED 600 UNNUMBERED 27 TOTAL 627
	26,265	17,705	96	4750	2169	NUMBERED 1451 UNNUMBERED 100 TOTAL 1551

Application for Renewal
April 26, 1984

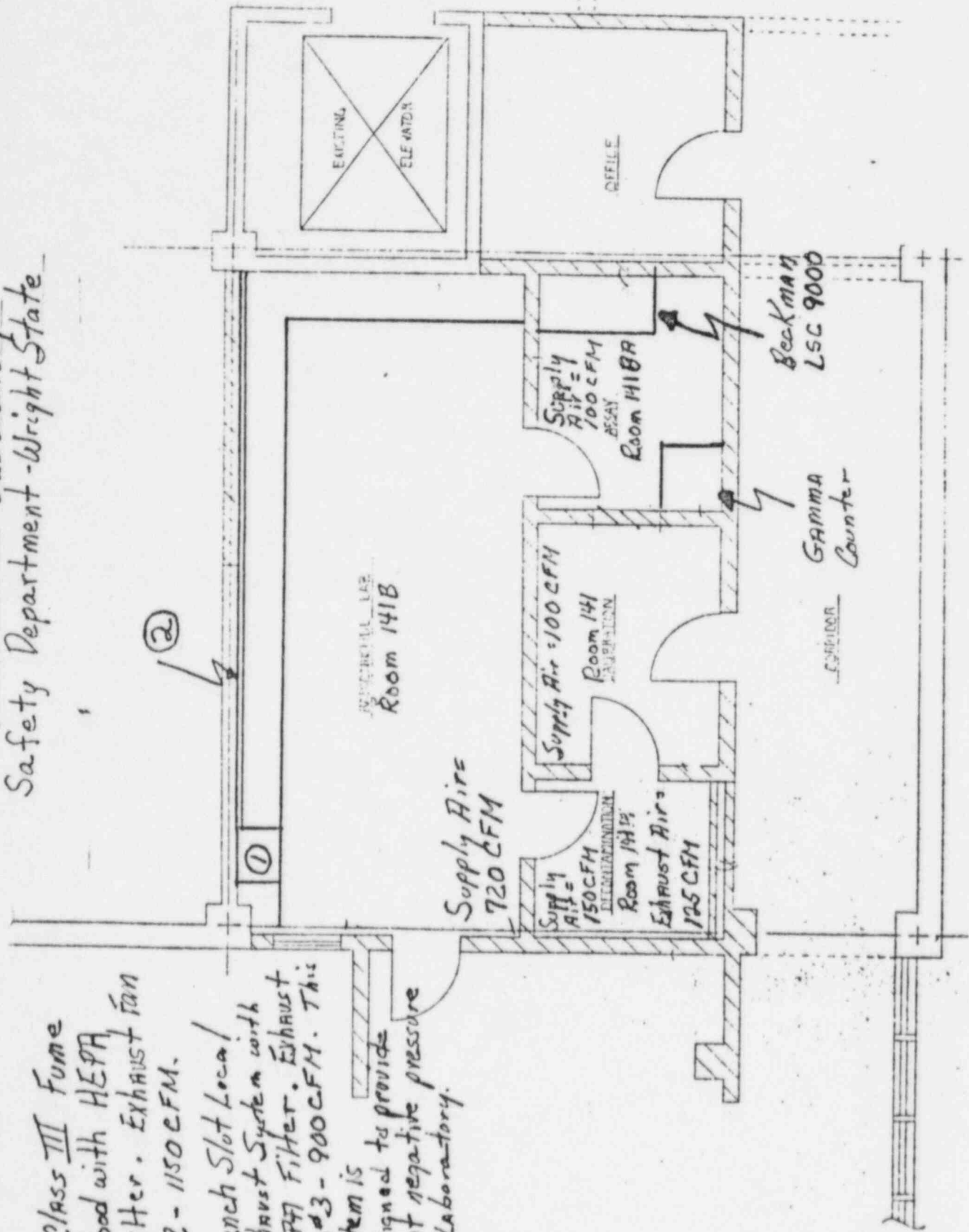
SQUARE FOOT AREAS				
QWCS	NET SCHEDULE	CUSTOMER	CHIEFLY THIN	STUD TOTAL
2242	9,042	48	1912	1354
				MECHANICAL
				POWERED 647
				UNPOWERED 33
				TOTAL 680
5269	17,705	95	4760	2169
				MECHANICAL 1035
				UNPOWERED 113
				TOTAL 1150



Application for Renewal
April 26, 1984

*Radionuclide Laboratory
Safety Department - Wright State*

- ① Class III Fume Hood with HEPA Filter. Exhaust Fan #2 - 1150 CFM.
- ② Bench Slot Local Exhaust System with HEPA Filter. Exhaust Fan #3 - 900 CFM. This system is designed to provide slight negative pressure to Laboratory.



CONTROL NO. 7924.1