



THE UNIVERSITY OF WYOMING

RADIOLOGICAL SAFETY CONTROL PROGRAM
BIOCHEMISTRY BUILDING

LARAMIE, WYOMING 82071

November 5, 1981

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Mr. R.G. Page

Re: Amendment to By-product Materials License Number 49-09955-10

Dear Mr. Page:

In order to conform with NRC requirements on possession limits of radio-nuclides, I am requesting an amendment to by-products materials license number 49-09955-10 issued to the University of Wyoming.

Conditions 6, 7, 8, are to be amended to read as follows:

- | 6. By product, source, and/or special nuclear material | 7. Chemical and/or physical form | 8. Maximum amount that license may possess at an one time |
|---|----------------------------------|---|
| A. Any byproduct material with atomic numbers 3 through 83, inclusive | A. Sealed sources | A. 20 Curies. NO sources to exceed 2 curies |
| B. Any byproduct material with Atomic numbers 3 through 83 and ²¹⁰ Pu, ²⁴¹ Am, ²⁴³ Am, ²⁵² Ca, ²⁴² Cm, ²⁴⁴ Cm, ²³⁸ Pu, and ²³⁹ Pu | B. Any | B. The sums of quotients of radionulides other than sealed, divided by the quantities authorized as specified in attached Table I does not exceed unity |
| C. Americium-241 | C. Sealed Sources | C. 5 curies |

8112070013 811117
NMS LIC30
49-09955-10 PDR

D. Californium 252

D. Sealed Sources

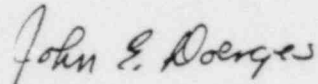
D. 100 Millicuries.
No source to ex-
ceed 1.5 milli-
curies.

E. Polonium 210

E. Sealed Sources

E. 100 millicuries.
No source to ex-
ceed 10 milli-
curies

Sincerely yours,



John E. Doerges
Health Physicist

JD/sls
Enclosure

Table 1
Schedule of
Limiting Possession Limits
Arranged Alphabetically by Elements

<u>Radionuclide</u>	<u>Group Number</u>	<u>Limiting Possession Limit</u>	
		<u>Curies</u>	<u>Grams</u>
Americium-241	I	0.30	0.09
Americium-243	I	0.30	1.5
Antimony-124	IV	1000	
Barium-140	V	2000	
Cadmium-113m	V	1500	
Calcium-45	IV	800	
Carbon-14	V	1300	
Californium-252	I	0.30	5.0×10^{-4}
Cesium-134	IV	350	
Cesium-137	IV	600	
Chromium-51	VI	150,000	
Cobalt-60	V	4000	
Copper-64	VI	50,000	
Curium-242	II	8.0	2.5×10^{-3}
Curium-244	I	0.50	6.0×10^{-3}
Gold-198	VI	100,000	
Hydrogen-3	V	6000	
Iodine-125	II	8.0	
Iodine-129	II	1.0	
Iodine-131	II	3.3	
Iridium-192	VI	50,000	
Iron-55	VI	30,000	
Iron-59	V	2400	
Krypton-85	V	7000	
Manganese-54	V	1500	
Manganese-56	VI	120,000	
Molybdenum-99	V	3000	
Neptunium-237	I	0.20	250
Nickel-63	V	5000	
Niobium-95	V	5000	
Phosphorous-32	III	15	
Plutonium-238	I	0.10	6.0×10^{-3}
Plutonium-239	I	0.10	1.5
Polonium-210	II	3.2	
Promethium-147	V	3500	
Ruthenium-103	V	1500	

Table 1 (Cont)

Ruthenium-105	VI	15,000	
Scandium-46	V	2500	
Selenium-75	IV	500	
Silver-110m	IV	500	
Strontium-90	III	25	
Sulfur-35	IV	500	
Tantalum-182	VI	15,000	
Technetium-99m	VI	200,000	
Thallium-204	VI	30,000	
Thulium-170	IV	1000	
Thorium-228	I	0.30	4.0×10^{-4}
Tin-113	IV	1000	
Tin-123	IV	1000	
Tungsten-187	V	5000	
Uranium-233	II	5	500
Xenon-133	V	10,000	
Zinc-65	V	2500	
Zirconium-93	V	5000	
Zirconium-95	V	1300	