

L&R:IB:RLH (12-140-4)

July 17, 1959

Sinclair Research Laboratories, Inc.  
400 East Sibley Boulevard  
Harvey, Illinois

Attention: Dr. Adolph I. Snow

Gentlemen:

You will note that we did not include a procurement limit for Hydrogen 3 on the enclosed license. Therefore, you may procure as much Hydrogen 3 as demanded by your program as long as you do not have in your possession more than 100 curies of Hydrogen 3 at any one time.

Very truly yours,

Robert E. Brinkman  
Senior Licensing Reviewer  
Isotopes Branch  
Division of Licensing and Regulation

Enclosures:

1. Amendment No. 1 to Lic # 12-140-4
2. 10 CFR, Parts 20 and 30
3. Form AEC-313 w/instructions

A/10

OFFICE ▶	Isotopes	Isotopes				
SURNAME ▶	Hervin:dg	Brinkman				
DATE ▶	7/17/59	7/17/59				

U. S. ATOMIC ENERGY COMMISSION  
BYPRODUCT MATERIAL LICENSE

LICENSE NO. 12-140-4

AMENDMENT NO. 1 (G61)

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with application dated <b>June 22, 1959,</b>	
1. Name <b>Sinclair Research Laboratories, Inc.</b>		3. License number <b>12-140-4 is amended in its entirety as follows:</b>	
2. Address <b>400 East Sibley Boulevard Harvey, Illinois</b>		4. Expiration date <b>July 31, 1961</b>	
		5. Reference No.	
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time.	
<b>A. Hydrogen 3 (See Page 2)</b>	<b>A. Any (See Page 2)</b>	<b>A. 100 curies (See Page 2)</b>	

9. Authorized use  
**A. and B: RESEARCH AND DEVELOPMENT as defined in Section 30.4(k) of Title 10, Code of Federal Regulations, Part 30, "Licensing of Byproduct Material".**

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
11. The authorized place of use includes temporary job sites owned or leased by the Sinclair Research Laboratories, Inc., in all 49 states.
12. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation".
13. A curie of Iridium 192 is defined as that quantity of activity which presents a radiation intensity of 0.55 roentgen per hour at a distance of one meter.
14. Sealed sources containing byproduct material (except solid metal Iridium 192; Tantalum 182; Cobalt 60 plated with gold or nickel; and gases) shall be tested for leakage and contamination at intervals of not more than six (6) months and records of test results shall be maintained by the licensee.

(See Page 2)

U. S. ATOMIC ENERGY COMMISSION  
BYPRODUCT MATERIAL LICENSE  
Supplementary Sheet

License Number 12-140-4  
(G61)

AMENDMENT NO. 1

Continued from Page 1

6. Byproduct material (element & mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
B. Any byproduct material between Atomic Nos 3-83, inclusive.	B. Any	B. 1,000 millicuries of any byproduct material between Atomic Nos. 3-83, inclusive except: Cobalt 60 - 25 curies Iridium 192 - 25 curies Strontium 90- 100 millicuries. Total- 130 curies.

CONDITIONS

- 15. Byproduct material shall be used by, or under the direct supervision of individuals approved by the local isotope committee, Dr. Adolph I. Snow, Chairman.
- 16. Each sealed source of licensed material to be used outside of a shielded exposure device shall be acquired from the supplier with a durable, legible and visible tag permanently attached. The tag shall be attached directly to the source or attached by a durable chain or leader. The tag shall be at least 1 inch square, shall bear a conventional radiation symbol and a minimum of the following instructions: "Danger - Radioactive Material, Do Not Handle, Notify Civil Authorities if Found". Repair or replacement of tags shall be accomplished by returning the source to the manufacturer.
- 17. Byproduct material shall not be used in or on human beings.
- 18. The licensee shall possess and use byproduct material described in Items 6, 7 and 8 of this license in accordance with statements, representations, and procedures contained in his application and attachments thereto dated May 16, 1957, and in related documents entitled "Radioisotope Committee Control Over Radioisotope Procurement and Record Keeping", and "Radiation Laboratories, Inc."

For the U. S. Atomic Energy Commission

DUPLICATED

Date July 17, 1959

FOR DIV. OF INSP.

by

Original Signed By  
James R. Mason  
**Chief, Isotopes Branch**  
Division of Licensing and Regulation  
Washington 25, D. C.

*1. Goodhill / [Signature]*

*REN 7/17/59*