



SINCLAIR RESEARCH, INC.

400 EAST SIBLEY BOULEVARD
HARVEY, ILLINOIS

June 14, 1963

Isotopes Branch
Division of Licensing and Regulation
U. S. Atomic Energy Commission
Washington 25, D. C.

Gentlemen:

Attached is a completed Form AEC-313 in renewal of License Number 12-140-4 (G63) which is due to expire on July 31, 1963. It is desired to renew this license and all amendments to date.

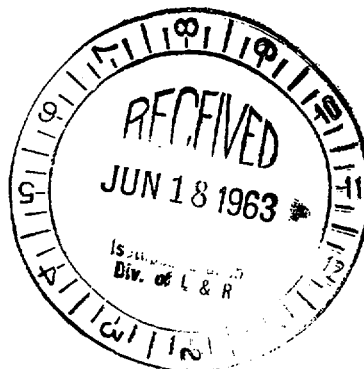
The only change from the license in effect now is in the composition of the Radioisotope Committee. One of the past members of this committee has left the company and has been replaced by a new member whose qualifications have been described in the application.

Yours very truly,

SINCLAIR RESEARCH, INC.

A. I. Snow,
Chairman, Radioisotope Committee

AIS:ec
Attachment



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APPLICATION FOR BYPRODUCT MATERIAL LICENSE

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application. If application is for renewal of a license, complete only Items 1 through 7 and indicate new information or changes in the program as requested in Items 8 through 15. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail three copies to: U. S. Atomic Energy Commission, Washington 25, D. C. Attention: Isotopes Branch, Division of Licensing and Regulation. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30 and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.

1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc.) Sinclair Research, Inc. 400 East Sibley Boulevard Harvey, Illinois		(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a).) Same as shipping address except for field uses.	
2. DEPARTMENT TO USE BYPRODUCT MATERIAL Any		3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.) Renewal 12-140-4 (G63) and amendments	
4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.) As approved by the radioisotope committee of applicant institution; see attachment for change in radioisotope committee membership.		5. RADIATION PROTECTION OFFICER (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.) Dr. Adolph I. Snow	
6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.) A. Hydrogen 3. B. Any byproduct material between atomic Nos. 3-83 inclusive.		(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.) A. Any chemical or physical form. Possession limit 100 curies. B. Any chemical or physical form. Possession limit 1000 millicuries of any byproduct material between atomic Nos. 3-83, except cobalt 60 - 25 curies iridium 192 - 25 curies strontium 90 - 100 millicuries Total - 130 curies	
7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.) 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.			

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TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection			Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments			Yes No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity			Yes No	Yes No
d. Biological effects of radiation			Yes No	Yes No

9. EXPERIENCE WITH RADIATION. (Actual use of radioisotopes or equivalent experience.)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

10. RADIATION DETECTION INSTRUMENTS. (Use supplemental sheets if necessary.)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier.)

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. (Circle answer) Yes No

14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.

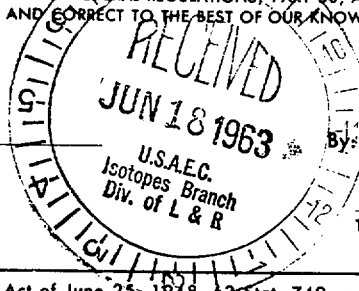
15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

See attachment

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

Date June 14, 1963



SINCLAIR RESEARCH, INC.

Applicant named in item 1

By: E. J. Martin

Vice President and General Manager

Title of certifying official

WARNING.—18 U. S. C., Section 1001; Act of June 25, 1948, 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

4. Individual User(s)

There is one change in the membership of the Radioisotope Committee. Dr. J. S. Curtice has left the company and has been replaced by Mr. L. A. Baillie. Current members of this committee are Dr. L. H. Beckberger, Mr. R. H. King, Dr. L. E. Olson, Mr. R. L. Pontious, and Dr. A. I. Snow, plus the new member, Mr. L. A. Baillie.

Mr. L. A. Baillie

Mr. Baillie has a Bachelor of Science degree in Chemistry. He has had experience in laboratory handling of radioactive materials at the University of Chicago Hospitals, U. S. Air Corps, and at Sinclair Research, Inc. At Sinclair he has been a radioactive tracer chemist dealing with a variety of isotopes and counting equipment.

The following items are the same as in question #8, AEC-313:

<u>Type of Training</u>	<u>Where Trained</u>	<u>Duration of Training</u>	<u>On the Job</u>	<u>Formal Course</u>
a	University of Chicago and	9 years	yes	yes
b	U. S. Air Corps and	9 years	yes	no
c	Sinclair Research, Inc.	9 years	yes	yes
d		9 years	yes	no

15. Waste Disposal

Oak Ridge National Laboratory. When the service from Oak Ridge National Laboratory becomes unavailable disposal will then be made through a competent commercial waste disposal service.

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