

INDIANA UNIVERSITY

BLOOMINGTON, INDIANA

OFFICE OF THE TREASURER

February 1, 1960

13-108-1
Amend 3

United States Atomic Energy Commission
Washington 25, D. C.

Attention Mr. H. L. Price, Director
Division of Licensing and Regulation

Re: Byproduct Material License 13-108-1
Amendment No. 1 and No. 2

Gentlemen:

Our above numbered Byproduct Material License for the Department of Chemistry covers any byproduct material between Atomic Nos. 1 and 83, inclusive, with a maximum amount of 500 millicuries of each byproduct material and a total possession limit of five curies.

Dr. Haurowitz, of our Chemistry Department, has now embarked upon a program in which he will use up to 10 curies of tritium and would want to keep on hand as much as three curies of tritium at one time. We ask that you consider our enclosed application to amend the above license so that he may be allowed to possess three curies of tritium. This probably should be in addition to the five curie maximum listed on our License Amendment No. 1.

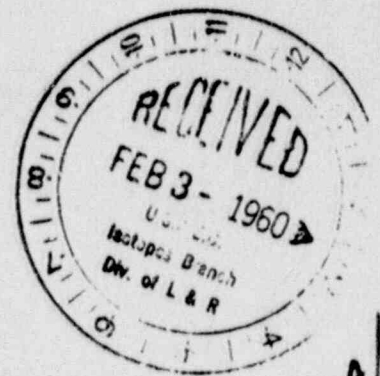
Yours very truly,

R. M. Priest

R. M. Priest
Purchasing Department

jk

Enclosure



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INDIANA UNIVERSITY
INTER-DEPARTMENTAL COMMUNICATION

TO: Mr. R. Priest

FROM: F. Haurovits

DEPT. Purchasing

DEPT. Chemistry

SUBJ. Licence for isotopes

DATE: January 29, 1960

13-108-1
Amend 3

Please apply to the A.E.C. for an amendment to our licence which will enable us to use up to 10 Curies of tritium per year.

Up to the present time we used in our work (on autoradiography of animals injected with labeled antigens) antigens which were tritiated by the Wilsbach method. We find now that the activity of tritium bound in this manner is much too low to give usable autoradiographs. We have to increase it considerably and have to incorporate tritium by means of catalytical methods. We will therefore need tritium gas from the Oak Ridge National Laboratories. I estimate that our need of tritium will be about 10 curies. We will tritiate catalytically arsanilic acid, sulfanilic acid and other aromatic compounds, then diazotize them and couple them to proteins to obtain labeled antigens. These will be injected to rabbits, rats or mice and the tissues of these animals will be examined by autoradiography. The carcasses of the animals will be buried at the special grounds of the University used for these purposes. At no time we will keep here more than 3 curies of tritium.

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.

13-108-1 Amendment 3

<p>1. (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital, person, etc.)</p> <p>Indiana University Bloomington Indiana</p>	<p>(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1 (a).)</p> <p>Same</p>
<p>2. DEPARTMENT TO USE BYPRODUCT MATERIAL</p> <p>Department of Chemistry</p>	<p>3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.)</p> <p>13-108-1 (Amendment No. 1 & 2)</p>
<p>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.)</p> <p>Dr. Felix Haurowitz</p>	<p>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.)</p> <p>Dr. Ralph Seifert</p>
<p>6. (a) BYPRODUCT MATERIAL. (Element and mass number of each.)</p> <p>Elemental tritium</p>	<p>(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.)</p> <p>See letter attached.</p>

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.)

See letter attached

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ATOMIC ENERGY COMMISSION
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