

June 6, 1985

'85 JUN 10 A11:01



BUTLER UNIVERSITY

4600 Sunset Avenue  
Indianapolis, Indiana 46208  
317-283-9322

College of Pharmacy

Material Licensing Branch  
Division of Fuel Cycle and Material Safety  
United States Nuclear Regulatory Commission  
WASHINGTON, D.C. 20555

In regards to License 13-01865-02, program code 01110

Butler University, College of Pharmacy and Holcomb  
Research Institute, Indianapolis, Indiana 46208

University representative: Howard A. Swartz  
College of Pharmacy  
Phone 283 9326

We have reviewed the documents submitted and on file for the present license and find them up-to-date and accurate in reference to the University management control program, facilities, equipment (one addition listed separately), personnel, radiation safety procedures, waste disposal procedures, locations of use and other pertinent information. Enclosed are copies of University forms initiated for counting gamma and liquid scintillation samples, ordering and shipping/receiving of radioactive materials, and the description of new equipment.

We have reviewed the NRC regulations that ~~are~~ pertinent to the University and can state we are in compliance with all regulations.

We request license fee exemption as stated in NRC Rules and Regulations, part 170.11 (36 FR 18173)

Yours truly'

Howard A. Swartz

Copies to:

United States Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
GLEN ELLYN, Illinois 60137

RECEIVED BY LFMB	
Date	June 25
Log	6/26/85
By	cap
Orig. To	PRJ
Action Compt.	af

RECEIVED

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REGION III

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13-01865-02 PDR

170.11(a)(4) EXM  
FEE EXEMPT

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JUN 14 1985

REGION III

CONTROL NO. 79186

Addition to Item 10

License Application for current license

Tri-Carb Model 4640, Packard Instrument Company

RECEIVED

85 JUN 26 PM 2:50

U.S. M.P.C.  
FBI FIELD OFFICE

RADIOLOGICAL CONTROL COMMITTEE

SHIPPING/RECEIVING FORM

The following information is to be supplied for all shipments of radioactive materials received by Butler University. Please note that all radioactive materials must be delivered directly and in person to Dr. H. A. Swartz in the College of Pharmacy. In the event that Dr. Swartz is not available to receive the radioactive materials, they should be locked up and stored in a designated place until such delivery can be made. Dr. Swartz may designate a member of the Radiological Control Committee to be acting Control Officer in his absence.

Date of Receipt of Shipment\_\_\_\_\_

Received by\_\_\_\_\_ (Shipping and Rcvg)

Carrier\_\_\_\_\_

Company from whom purchased\_\_\_\_\_

BU P.O. Number\_\_\_\_\_

Radioisotope\_\_\_\_\_

Concentration\_\_\_\_\_

Solution media\_\_\_\_\_

Activity\_\_\_\_\_

Condition of shipping container\_\_\_\_\_

Background activity of container\_\_\_\_\_

Background activity of receiving area\_\_\_\_\_

A copy of this report must accompany the received radioactive material and become part of the file on this substance.



# RADIOLOGICAL CONTROL COMMITTEE

## BUTLER UNIVERSITY AND HOLCOMB RESEARCH INSTITUTE

### SAMPLE COUNTING AND DISPOSAL PROCEDURES

Nov. 1, 1984

Counting services for liquid scintillation(beta) and gamma samples are available for all individuals in all Departments of the University and all persons in Holcomb Research Institute who have the need for such services.

1. All samples must be submitted in containers approved by the Radiological Control Committee hereafter referred to as the Committee.

2. All submitted samples must be accompanied by a completed form, referred to as the Counting Request Form. Any sample received without this form appropriately filled out will not be counted, and will be returned.

3. All samples and appropriate forms should be submitted to room 301, Pharmacy Building, to the attention of Dr. H.A. Swartz.

#### FOR LIQUID SCINTILLATION SAMPLES:

Samples will be counted in the designated sequence, preceded by six blank readings and the designated number of reference standards of the particular radioisotope at the intervals indicated on the Counting Request Form. Blanks and standards will be furnished by Dr. Swartz.

The completed counting data will be delivered to each individual or department submitting the samples the day following the completion of counting. Sample vials will be held for a period of 10 days after the samples have been counted. After this time, unless a recount request is initiated, the vials and their content will be disposed of by the appropriate NRC approved procedures.

Activities must be limited to the following:

$^3\text{H}$  and  $^{14}\text{C}$ : maximum of 250,000 dpm per vial(0.1136 uCi)

Other radioisotopes: e.g.,  $^{36}\text{Cl}$ ,  $^{32}\text{P}$ , established by consultation with Dr. Swartz.

## Sample Counting and Disposal Procedures(cont)

### FOR GAMMA SAMPLES

The samples will be delivered in the appropriate shielded containers with the designated counting sequence as indicated on the Counting Request Form.

Samples will be counted in the designated sequence, preceded by three blank readings and the designated number of reference standards of the particular radioisotope at the intervals indicated on the Form. Blanks and standards will be furnished by Dr. Swartz.

The completed counting data will be delivered to each individual or department submitting the samples following the completion of counting. Sample vials will be held for a period of 10 days after the samples have been counted. After this time, unless a recount request is initiated, the vials and their content will be disposed of by appropriate NRC approved procedures.

Activities must be limited to 200,000 dpm per sample.

# Counting Request Form

## Liquid Scintillation Samples:

1. Radioisotope(s)\_\_\_\_\_Reference No.\_\_\_\_\_
2. Solvent System\_\_\_\_\_Volume\_\_\_\_\_mL
3. Nature of Samples\_\_\_\_\_
4. Please Report Sample in: CPM\_\_\_ DPM\_\_\_ Both\_\_\_\_\_
5. Count reference standard sample every \_\_\_\_\_sample

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## Gamma Samples

1. Radioisotope(s)\_\_\_\_\_Reference No.\_\_\_\_\_
2. Form\_\_\_\_\_
3. Count principal photopeak of \_\_\_\_\_ Kev with a window  
of \_\_\_\_\_Kev
4. Count reference standard(s) every \_\_\_\_\_ sample

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

July 8, 1985

Butler University  
College of Pharmacy & Holcomb Research  
ATTN: Howard A. Swartz  
4600 Sunset Avenue  
Indianapolis, IN 46208

License No. 13-01865-02  
Control No. 79186

SUBJECT: LICENSE RENEWAL APPLICATION

Gentlemen:

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified and your license number.

Sincerely,

Material Licensing Section  
Region III