

# INDIANA UNIVERSITY

EVANSVILLE CENTER FOR MEDICAL EDUCATION 8600 University Boulevard Evansville, Indiana 47712 (812) 464-1831

SCHOOL OF MEDICINE

July 9, 1986

Mr. John R. Madera Materials Licensing Section Nuclear Regulatory Commission Region III 799 Roosevelt Road Glen Ellyn, Illinois 60137

RE: Control No. 76786
By-Products Material License #13-15734-01

Dear Mr. Madera:

The following is in response to your letter dated March 27, 1986:

#### 1. Instrument Calibration

Survey meters are calibrated annually by an independent agent such as Stan A. Huber Consultants, Inc., 200 North Cedar Rd., New Lenox, II 60451, License #12-17503-01 (through Servi-Tech, 1409 Centre Circle Drive, Downers Grove, IL 60515).

Scintillation spectrometers for counting "swipe tests" samples as well as used for all counting of research samples. Calibrated either by the service representative according to their methods or by us using standards supplied by the manufacturer of the instrument (Beckman Instruments, St. Louis, MO) Standard sources of tritium and carbon 14 (set PN 566321) are used along with a background source to set the intrument gain as described in detail in the instrument instruction manual. These calibration procedures provide accurate, research quality, calibration of the instruments.

#### 2. Surveys

Surveys are conducted by or under the supervision of the approved user to assure that the work area is free of contamination. These are standard "swipe tests" and provision is made for recording on the inventory sheet used to record the use of each isotope sample. Our regulations stipulate that an area will be surveyed after each (i.e. experiment) use to assure it is free of contamination.

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- b. The security and proper storage of isotopes is the responsibility of each authorized user. This responsibility includes necessary surveys to assure that the storage area is not contaminated.
- c. Same as in item b. User is responsible. The RSO or his designated assistant will perform independent surveys as needed to confirm the user data.
- d. The criteria contained in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses...," July 1982, will be incorporated in our standard guidelines for release of an area used for isotope experiments to general use.

## 3. Phosphorus-32 Procedures

We had reduced our request for 200 mCi of P-32 as per copy of attached letter to Mr. William J. Adam in July 1984 (see enclosure 1).

a - d. are followed for phosphorous-32 even though our amounts used are less than 10 millicuries.

# 4. Package Receipt During Off-Duty Hours

A revised copy of our memo, "Receipt of Radioisotopes," has been distributed to the appropriate departments. (See enclosure 2).

## 5. Use of Material in Animals

We are not using animals.

If there are any further questions, please let us know.

Sincerely,

George D. Guthrie, Ph.D. Radiation Safety Officer

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