

carroll of montana

June 20, 1984

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Material Licensing Branch
Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety & Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Renewal Application for License Number
25-07093-01
Expiration Date: 07/31/84

Licensee: Carroll College
Helena, Montana 59625

To Whomever It May Concern:

I have reviewed the pertinent materials regarding the renewal of our byproduct material license. The current license expires July 31, 1984.

I believe that our current license and supporting documents accurately reflect our program. We wish to continue to operate under our current license and refer to the following documents previously submitted:

1. January 22, 1979 Application for Byproduct Material License (Renewal)
2. May 10, 1979 Ref. Control No. 98351, Additional information required for the January, 1979, application.

It is our intention to continue to operate in accordance with the documents and with all NRC regulations and license conditions.

In order to reflect more accurately the current status and direction of our program, the attached material is provided.

If any further information is needed, please contact me. We claim license fee exemptions under Section 170-11a4.

Sincerely,

Joseph D. Harrington
Joseph D. Harrington, Ph.D.
Professor of Biology
for Carroll College

FEE EXEMPT

170.11(Ca)(4)

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RECEIVED BY LFMD	
Date..	6/27/84
Log...	June 5th
By...	Bram
Orig. To...	
Action Compl.	6/29/84

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Current Information:

A. Additional training of the program supervisor who also serves as the radiation protection officer:

1. One-day training as Radiological Monitor
June 4, 1982
Conducted by the Montana Disaster and Emergency Services Division
Helena, Montana
2. Course: Recombinant DNA Methodology
May 28-June 1, 1984
The Center for Advanced Training in Cell and Molecular Biology
The Catholic University of America
Washington, D.C. 20064

B. New Equipment:

1. Eppendorf Digital Pipets (2-10ul)
(10-100ul)
(100-1000ul)
2. Radiation Survey Meter
Model #6A, Victoreen Equipment Co.
3. Polystyrene screens for beta-shielding during pipetting and other manipulations.

C. Waste Disposal:

Burial of radionuclide waste has not been necessary for the past several years and we do not anticipate using burial as a means of disposal in the future.

D. Personnel Monitoring Devices:

We are now using film badges supplied by Siemens Gammasonics, Inc., Des Plaines, Illinois 60018.

E. Local emergency backup services are available through the Radiation Control Program of the Montana State Department of Health and Environmental Sciences located in Helena. Twenty-four hour service is available.

F. New Procedures:

1. Beginning January, 1985, we would like to be able to do the Southern transfer technique using commercially available bacterial and yeast DNA. As for all radioisotope procedures, this will be done for the teaching and training of students. The procedure will include a hybridization of DNA on nitrocellulose using a phosphorous-32 nick translated probe. Sealed plastic bags will be used to reduce as much as possible the amount of radioactive probe needed. The hybridization will be followed by autoradiography. Eventually we may also want to do the same procedure with probes labelled with sulfur-35 as this label becomes more widely used in this technique. No change in the maximum amount of phosphorous-32 or sulfur-35 in our possession at any one time is anticipated. (Reference: "Molecular Cloning--A Laboratory Manual" by Tom Maniatis, et. al. [1982].)

2. By January, 1986, we would like to be able to demonstrate as part of our program the procedure for bacterial colony DNA hybridization using Whatman 541 filters. The method involves the use of short oligonucleotides labelled with phosphorous-32. The method allows for bacterial colony identification by replica plating and using a DNA probe technique. (References: Gergen, et. al. in Nucleic Acids Research 7: 2115 [1979] and Wallace, et. al. in Nucleic Acids Research 9: 879 [1981].)

We do not believe these new procedures constitute an actual change in our program under the license. We include them here so that you will be aware of the direction in which our program is moving. If further information or clarification is needed, we will be happy to provide whatever would be helpful or required.

Contact person for this renewal application:

Joseph D. Harrington, Ph.D.
Professor of Biology
Carroll College
Helena, Montana 59625

Telephone: (406) 442-3450, ext. 259