



ICI Americas Inc.

May 23, 1988

Mr. Francis M. Costello
Nuclear Materials Safety Section A
Division of Radiation Safety & Safeguards
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406

Dear Mr. Costello:

Re: License No. 06-19068-01
Docket No. 030-16018

This letter is in response to your letter dated April 27, 1988 concerning our application (dated March 21, 1988) for amendment to our Material License No. 06-19068-01 of the Environmental Health Center, Stauffer Chemical Company.

The following additional information is provided in order to continue your review:

1. Applicant Name

Stauffer Chemical Company to ICI Americas Inc.
Environmental Health Center Environmental Health Center

a. Mailing address of the licensee - same

400 Farmington Avenue
Farmington, CT 06032

b. List all changes in organization, facilities, equipment or personnel.

1) Organization and Personnel - See present organization on attached sheet

- Dr. Hackett, a Stauffer employee since September 1976, has the combined responsibility of the metabolism lab and the analytical lab since the departure of Dr. Killinger. Dr. Pepper, Dr. Fisher and Mr. Ritter report to Dr. Hackett.
- Dr. Pavkov has replaced Dr. Sprague as Manager of General Toxicology. Dr. Pavkov started at the EHC on December 1, 1983 and was supervised by Dr. Sprague. His responsibilities included supervision of the inhalation studies using sealed Krypton-85 sources. Mr. Steve MacAskill has been conducting these studies since the facility opened, initially under the supervision of Dr. Stuart as section manager of inhalation and radiation protection officer (RPO).

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Agricultural Products
Environmental Health Center
400 Farmington Avenue
Farmington, CT 06032
(203) 674-6300

- Dr. Matheson has the managerial responsibility of the In Vitro Toxicology section and the reproductive toxicology since the departure of Dr. Killinger. Drs. Mattes and Sager work in the In Vitro area and report to Dr. Matheson.

2) Facilities - same as previously described and observed during the last inspection.

3) Equipment - Changes in equipment have not occurred as a result of the sale of Stauffer Chemical Company.

- c. Will be selling or otherwise giving up control of a licensed operation and remain in business with or without using licensed material?

The licensed operation at the Environmental Health Center in Farmington Connecticut is continuing the same metabolic tracer activities that have been performed since the issuance of the original license. The same relationship exists between the Environmental Health Center and ICI as did the Environmental Health Center and Stauffer Chemical Company.

- d. Is the transfer accomplished by purchase of assets or by purchase of stock?

In contemplation of a sale of its businesses, Stauffer Chemical Company reorganized and formed three companies. One of these companies was Stauffer Agricultural Chemical Company Inc. ("Stauffer Ag"). On May 27, 1987, Stauffer transferred all of the assets and liabilities relating to its agricultural chemical business to Stauffer Ag, including the License referenced above.

On July 22, 1987, ICI American Holdings Inc. ("ICIAH") purchased all of the capital stock of Stauffer Ag. On December 28, 1987, ICIAH merged Stauffer Ag into ICI Americas by operation of law through the merger of the two companies (see attached letter).

- e. ICI Americas Inc. agrees to abide by the terms of the License referenced above and to comply with all applicable laws (see attached letter).
- f. The transfers described in response to question 1d above were all mutually agreed by and between the relevant parties (see attached letter).

2. Individuals - Use (U) or supervise (S) use of radioactivity

Add

Dennis S. Hackett, Ph.D. (S)
James C. Ritter, B.S. (U)
Richard C. Pfeffer, Ph.D. (U)
Gregory D. Fisher, Ph.D. (U)
Polly R. Sager, Ph.D. (U)
William B. Mattes, Ph.D. (U)
Kenneth L. Pavkov, Ph.D. (S)

Delete

Joanne M. Killinger, Ph.D.
Gary L. Sprague, Ph.D.
Ronald D. Snyder, Ph.D.
Theodore Y. Chin, Ph.D.
James P. Lehman, Ph.D.

Maintain

Robert F. Potrepka, Ph.D. (RPO)

Dale W. Matheson, Ph.D. (S)

As requested, please find attached further information for authorized users (U) concerning their formal training and working experience with specification of quantities and isotopes previously used.

Dr. Mattes is working with P-32 up to one millicurie at a time and Dr. Sager is working with S-35 up to one millicurie at a time. Drs. Pepper and Fisher conduct radiotracer metabolic studies with C-14. Both individuals should be licensed to handle up to 50 millicuries at a time. Mr. Ritter is the analytical chemist who has experience in mass spectrometry to identify metabolites from urine and feces and would handle up to one millicurie.

3. Maximum Amount on Hand

For Sulfur-35, the request was made to change the maximum amount that licensee may possess at any one time under this license from 1 millicurie to ten (10) millicuries. Prior to this time no studies with S-35 have been conducted. A new research project will be initiated that makes use of S-35 labelled inorganic sulfate to monitor glycosaminoglycan production in cultured cells. Current plans will use no more than 1 millicurie at a time and a total of 10 millicuries which will allow for one time removal of wastes.

For Phosphorus-32, the request was made to change the maximum amount that licensee may possess at any one time under this license from 5 millicuries to (10) millicuries. Current studies are conducted and will be conducted with the purchase of 1 millicurie at a time. Raising the limit to 10 millicuries will allow more cost efficient removal of wastes, assuming no decay of P-32. In actuality, the level of P-32 is nearly background before leaving EHC.

The following safety instructions will be delineated in the RADIATION PROTECTION PROGRAM of the Safety Manual (see attached) for individuals using millicurie quantities of P-32:

1. Low density shielding (i.e., 3/8" to 1/2" thick Plexiglas) will be used to keep Bremsstrahlung radiation at a minimum. NOTE: Shielding is presently being used.
2. A radiation survey procedure will be performed after each use. A wipe test procedure will be performed weekly.
3. A finger type extremity monitor (ring badge) will be worn for procedures that involve 1 millicurie or more of P-32. NOTE: Dr. Mattes has worn a ring badge since November 1986.
4. A dry run of unfamiliar procedures will be performed in the presence of the radiation protection officer in order to preclude unexpected complications.
5. Eye protection is required when procedures require 10 millicuries or more P-32.

Thank you very much for your attention in this matter.

Sincerely Yours,

Robert F. Potrepka

Robert F. Potrepka, Ph.D.
Radiation Protection Officer
Environmental Health Center

Attachments (4)

MAY 1988

