AUG 19 1993

Docket 70-938
License SNM-986

Mr. Frank X. Massè, Director
MIT Radiation Protection Programs
Massachusetts Institute of Technology
P. O. Box 95
Middleton, Massachusetts 01949

Dear Mr. Massè:

SUBJECT: RENEWAL OF SNM-986, REQUEST FOR ADDITIONAL INFORMATION
(TAC NO. L21687)

This refers to your application dated October 25, 1990, requesting renewal of Materials License SNM-986. Our review of your application has identified additional information that is needed before final action can be taken on your request. The additional information, specified in the enclosure, should be provided in the form of a revised application within 45 days of the date of this letter.

If you have questions regarding this matter, please call me at 301-504-2505. Please reference the above TAC No. in future correspondence related to this request.

Sincerely,
Original Signed By
Mary Thoma Adams
Licensing Section 2
Licensing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

Enclosure: As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

FAX MACHINE NO. (301) 504-2474

VERIFICATION NO. (301) 504-3365

TO: FRANK MASSÈ (Name) MIT (Company/Agency) 617-245-0901 (FAX No.)

MESSAGE: Please respond with your plans for this license, even if they're still tentative.

Thanks,
M.

FROM: MARY ADAMS

PHONE: 301-504-2505

NUMBER OF PAGES 2 w/o cover sheet

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Whitaker College of Health Sciences & Technology
Division of Toxicology
Cambridge, Massachusetts 02139-4307

PETER C. DEDON
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Room 16-336B
Tel. (617) 253-8017
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October 25, 1993

Mitchell Galanek
Associate Radiation Protection Officer
Radiation Protection Office
MIT, 20C-207

Dear Mitch:

I would like to bring to your attention an incident that occurred in my laboratory on August 25, 1993, which probably needs to be addressed at the next Radiation Protection Committee meeting.

On that date, a package containing γ-[^{32}P]-ATP (5 mCi) arrived in my laboratory from ICN. A graduate student, Bill LaMarr, received the package. Upon inspecting the empty shipping container for contamination, he noted that the packing slip was contaminated with ~1500 cpm (pancake probe, direct contact measurement) in one corner of the paper. Bill then contacted me and the Radiation Protection Office to report the problem. We did not identify the isotope ([^{32}P] or [^{35}S]?), but a gamma-emitter was unlikely since the radiation was stopped by a 1/4 inch sheet of Lucite. The radiation has decayed to ~100 cpm today, suggesting [^{32}P].

Bill then called ICN to report the incident. He was told by customer service that ICN knew of the problem and that it had been reported by other customers, although no identification of the isotope was provided by ICN. They apologized for the "inconvenience."

I reported this incident to Judy Coutu-Reilly that day, and did not pursue it further. In retrospect, I probably should have notified you as well, but the matter seemed relatively minor. It is understandable that the small contamination was missed during inspection by the Radiation Protection Office, since the presence of the [^{32}P] in the shipping container would probably have masked the low level of radiation on the packing slip.

The most disturbing feature of this incident was the lack of response by ICN. I would have expected ICN to call all customers receiving shipments that day to alert them to the problem; they clearly knew a problem existed.

I will attend the October 27 RPO meeting, but I will arrive late due to teaching responsibilities. If I am unable to attend, I hope you can address this problem with the committee. Please call me if you need other information.

With best regards,

Peter Dedon

Peter C. Dedon

Environmental
Medical
Service

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
MEDICAL DEPARTMENT
77 MASSACHUSETTS AVENUE, 20B-238
CAMBRIDGE, MASSACHUSETTS 02139-4307

RADIATION PROTECTION OFFICE

To: Francis X. Massé, Radiation Protection Officer
From: Donald Haes, Assistant Radiation Protection Officer
Subject: SNM Under Campus Control
Date: October 27, 1993

- All Special Nuclear Material and Accountable Material under control of the Campus Radiation Protection Program is in dead storage in 6-017 with the following exceptions:

  - Ten (10) Eberline ^{239}Pu alpha sources ranging from $9.90X10^{2}$-$3.78X10^{6}$ dpm are in occasional use and stored under lock and key in 20C-205 (counting room). These sources are included in the RPO periodic wipe-test and inventory schedule. Records of inventory control and wipe-test results are kept in accordance with current NRC license requirements. Eberline ^{239}Pu alpha source #830 (42609 dpm) is on loan to the Bates LINAC RPO.

  - The Plasma Fusion Center has RPO authorization (PFC-C-1) to use a 1 Curie ^{239}Pu-Be neutron source under control of the Reactor RPO. Specific conditions of approval of the authorization require the source to be returned to RRPO after each day of use, and when no longer of use to the project.

  - The Plasma Fusion Center has now received twelve fission chambers containing ^{235}U enriched to $\leq 93\%$. The fission chambers in possession are as follows: 4 mg ($\approx$ 9 nCi) each in 2 detectors from TGM; 1.68 gm ($\approx$ 3.6 μCi) each in 2 detectors from Imaging and Sensing Technology Corp.; 95 mg ($\approx$ 0.20 μCi) and 104 mg ($\approx$ 0.22 μCi) contained in 2 detectors from LND; 1.28 gm ($\approx$ 2.62 μCi) each in 2 detectors and 1.74 gm ($\approx$ 3.57 μCi) each in 4 detectors from University of California - LL National Labs. As of this date, all fission chambers are or will soon be located in the Alcator C-Mod cell (NW21-199).

- The above information be will reported at the 110th metting of the MIT RPC.

cc. M. Galanek

Director
20B-238
(617) 253-5360
Fax: (617) 253-4879

Biohazard Assessment
20C-214
(617) 253-1740
Fax: (617) 258-6107

Industrial Hygiene
20C-204
(617) 253-2596
Fax: (617) 253-4879

Radiation Protection
Campus RPO 20C-207
(617) 253-2180
Fax: (617) 253-4879

Reactor RPO
NW12-108
(617) 253-4203

Bates LINAC RPO
P.O. Box 95 21 Manning Road
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(617) 245-6600 Fax: (617) 245-0901