



Department of Chemistry

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October 25, 2005

Ms. Elizabeth Ullrich
Senior Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety
NRC, Region 1
475 Allendale Rd.
King of Prussia, PA 19408-1415

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MS-16

2005 OCT 27 PM 12:57

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Dear Ms. Ullrich:

Subject: Response to my conversation with Dennis Lawler in reference to items 3 and 4 in my correspondence of September 30, 2005 with regard to renewal of license 37-10424-02. 03000996

#3

It is confirmed herewith that the training program will include the following elements to all employees working in the laboratory. The topics covered will include: (a) What is an isotope? (b) What is radioactive emission and its energetics and hazards? (c) How to handle the radioactive materials; (d) Measurement radioactivity, including definitions of the Curie and other subunits used in quantitation; (e) Scintillation counting and use of the survey meter; (f) radioactive decay, half-life of isotopes and its implication; (g) Worker exposure and monitoring of exposure; (h) Safe disposal of radioactive waste such as used scintillation vials; (i) License for use of isotopes and the conditions of use; (j) Emergency procedures. Training will be provided every year for all users and attendance is mandatory; *however, the training will be offered to new employees joining the group(s) prior to starting work. All cleaning staff will be instructed not to take out or consider as garbage any material that is clearly marked as "radioactive" with the tape.*

Assessment: The effectiveness of training will be assessed through personal interview because of the small group involved. Individual worker exposure will be monitored by film badges.

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#4

It is confirmed herewith that the survey meter Ludlum-3 and Probe Model 44-9 will be calibrated annually and kept in good operating condition. The scintillation counter has its own sealed standards that are used that can be corrected for decay. The survey meter will be calibrated annually in compliance with regulations.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Ramachandra Bhat".

K. Ramachandra Bhat, Ph.D.
Radiation Safety Officer
Department of Chemistry

KRB/ga