



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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National Institutes of Health  
National Institute of  
Arthritis, Diabetes, and  
Digestive and Kidney Diseases  
4212 North 16th Street, Rm. 541-A  
Phoenix, Arizona 85016  
(602) 203-1556

June 2, 1989

License No.: 02-13990-01

U.S. Nuclear Regulatory Commission  
Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, California 94596

Attention: Beth Riedlinger  
Health Physicist/Licensing  
Nuclear Material Safety Section

Dear Sir/Madam,

In our letter of April 17, 1989, (reference control no. 70952) we agreed in item 2B, to stipulations which we now realize are excessive. In a test of our 44-f pancake probe on a Ludium Model 3 scanning instrument, we observed reading three fold background on a simulated 32P contaminations tested by liquid scintillation counting to be two times the acceptable contamination level of 200 dpm/100 cm<sup>2</sup>. These results demonstrate the usefulness of our scanning instrument for contamination checks following 32P experiments and indicate the relative futility of trying to detect contaminations by smear survey. By comparison the smear survey can only survey a small fraction of the potentially contaminated areas and is a less efficient in terms of time elapsed before contamination can be recognized and contained. We therefore request that item 2B read as follows: "Radiation level surveys will be performed after each use of mCi amounts of phosphorus 32." Weekly radiation levels will be performed in phosphorus 32 storage areas. In situations where 32P contamination cannot be cleaned to background level, wipe test will be used only to verify immobility of 32P contamination. Results of these surveys will be documented and maintained for inspection purposes. Smear surveys of other isotopic materials will continue in accordance with previous license stipulations.

Sincerely,

David M. Mott, Ph.D.  
Radiation Safety Officer  
Clinical Diabetes & Nutrition Section  
National Institutes of Health

FEE EXEMPT

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