



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

October 4, 2005

Docket No. 03037005
Control No. 137524

License No. 37-31078-01

Richard Metz, Ph.D.
Research Director
FIDR
375 Pheasant Run
Newtown, PA 18940

**SUBJECT: FIDR, REQUEST FOR ADDITIONAL INFORMATION CONCERNING
APPLICATION FOR NEW LICENSE, CONTROL NO. 137524**

Dear Dr. Metz:

This is in reference to your application dated August 17, 2005 applying for a Nuclear Regulatory Commission license. In order to continue our review, we need the following additional information:

1. Please confirm if Dr. Metz will be the only authorized user listed on the license. If there are others that you wish to add to the license to supervise the use of radioactive material, please provide the name and evidence of training and experience for each named individual. You may wish to refer to Appendix J of NUREG-1556, Volume 7, "Program Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope", (NUREG-1556, Vol.7) to help you in formulating your response..
2. Please submit a diagram showing the locations of shielding, the proximity of radiation sources to unrestricted areas, and other items related to radiation safety.
3. Please describe your instrument calibration procedures and the frequency of instrument calibration. If your instruments will be calibrated by the instrument manufacturer or a person specifically authorized by the U.S. Nuclear Regulatory Commission or an Agreement State for instrument calibration, you only need to specify the name of the firm and the license number that authorizes the firm to perform calibration services, and the calibration frequency. If you intend to calibrate your own instruments, please submit your calibration procedures including calibration frequency. Section 8.10.2 and Appendix M of NUREG-1556, Vol. 7 may be helpful to you in developing your response.
4. Describe your procedures for ordering and receipt of licensed materials, and for notification of responsible persons upon the receipt of these materials. You may wish to refer to Section 8.10.3 of NUREG-1556, Vol. 7 to help you in developing your response.

5. 10 CFR 20.1801 requires that licensed material be secured against unauthorized removal from the place of storage. 10 CFR 20.1802 requires that the licensee control and maintain constant surveillance over materials in unrestricted areas that are not in storage. In your application, you did not indicate how you will secure licensed material. Describe how you will preclude the unauthorized removal of licensed material from the place of storage and in unrestricted areas. Information that may be useful in developing your response can be found in section 8.10.6 of NUREG-1556, Vol. 7.
6. Provide a more complete description of the routine survey program, including the areas to be surveyed, the types and levels of radiation and contamination considered to be acceptable, and provisions for maintaining records of surveys. The individual user should supplement the surveys performed by the radiation staff. The user should maintain records of each surveys in units required by 10 CFR Part 20, even if only a single measurement is necessary. Section 8.10.7 of NUREG-1556, Vol. 7 may be useful in formulating your response.
7. In support of your request for more than one millicurie of phosphorus-32, submit special safety instructions to be provided to individuals. Your procedures should include:
 - a. the use of low density shielding (e.g., plexiglass) in order to keep Bremsstrahlung radiation at a minimum,
 - b. a mandatory radiation survey and wipe test for radioactive contamination after each use,
 - c. the use of finger extremity monitors for procedures that involve one millicurie or more, and
 - d. a dry run prior to the performance of unfamiliar procedures in order to preclude unexpected complications. In addition, it is recommended that the radiation protection officer be present during new procedures,

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, industrial, and academic uses of nuclear material**; then **toolkit index page**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 9:00 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to Farrah Gaskins at the Region I Office and refer to Mail Control No. 137524. If you have any technical questions regarding this deficiency letter, please call Farrah Gaskins (610) 337-5143.

R. Metz
FIDR

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If we do not receive a reply from you within 30 calendar days from the date of this letter, we will assume that you do not wish to pursue your application.

Sincerely,

Original signed by Elizabeth Ullrich

Elizabeth Ullrich
Senior Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

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SISP Review Complete: (Fcg)

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