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

June 25, 2008

Docket Nos. 030-01786
030-08478
Control Nos. 138097
141494

License Nos. 19-00296-10
19-00296-17

Alfred C. Johnson, Ph.D.
Director, Office of Research Services
National Institutes of Health
Department of Health and Human Services
21 Wilson Drive MSC 6780
Bethesda, MD 20892-6780

SUBJECT: NATIONAL INSTITUTES OF HEALTH, REQUEST FOR ADDITIONAL INFORMATION CONCERNING FINANCIAL ASSURANCE DOCUMENTS, CONTROL NOS. 138097 AND 141494

Dear Dr. Johnson:

This is in reference to your letter dated May 28, 2008, and the “Decommissioning Funding Plan Update, 1 May 2008" for decommissioning for Nuclear Regulatory Commission License Nos. 19-00296-10, and 19-00296-17. In order to continue our review, we need the following additional information:

1. Please note that, with the issuance of amendment No. 17 to License No. 19-00296-20, financial assurance is not required for that license. Therefore, no reference to that license is needed in your decommissioning funding plan or financial assurance instrument.

2. With respect to alpha-emitting radionuclides:

   a. You referred to uranyl acetate as a “non-licensed” source of alpha-emitting radionuclides, and as “naturally occurring radioactive materials”. Uranyl acetate, uranyl nitrate, thorium nitrate and other such compounds contain uranium and/or thorium in concentrations greater than 0.05% by mass, and therefore are considered source material under 10 CFR Part 40. Most of these compounds are manufactured, distributed, possessed and used pursuant to the general license of 10 CFR 40.22. (Please note also that there are listed items in 10 CFR 40.13 for which persons using them are exempt from the requirements of a license.)

      Also, please note that the radiological criteria for unrestricted release in 10 CFR 20.1402 states that a site will be considered acceptable for unrestricted use if the residual radioactivity does not exceed 25 millirem in a year to the average member of the critical group. It states in 10 CFR 20.1003, in part, that "*residual radioactivity* means radioactivity in structures, materials, soils, groundwater, and

other media at a site resulting from activities under the licensee's control. This includes radioactivity from all licensed and unlicensed sources used by the licensee, but excludes background radiation."

Confirm that you understand that the decommissioning funding plan must include all radioactive materials under your control, whether or not they are under a specific license. If this changes the cost estimate for your Decommissioning Funding Plan Update, 1 May 2008, please provide the revised information.

b. Your letter stated that current surveys of laboratories using alpha-emitting radionuclides have not identified significant alpha contamination, and that surface smears for alpha contamination were less than the established minimum detectable activity. However, the letter did not state what your current action levels were that require decontamination in the alpha laboratories, nor did it specify the established minimum detectable activity. Your current operational detection and action levels for alpha-emitting radionuclides may differ significantly from the NRC's criteria for release for unrestricted use of facilities using alpha-emitting radionuclides. The NRC screening value that corresponds to the license termination criteria, if uranium-238 is the only residual contaminant, is a total of 101 disintegrations per minute (dpm) per 100 square-centimeters area (cm^2), of which not more than 10% may be removable. The corresponding screening value for total thorium-232 is 7 dpm/100cm^2. The corresponding screening value for total americium-241 is 27 dpm/100cm^2. These screening values are well below your stated routine decontamination limits for contaminated items of 2,200 dpm/100cm^2 in restricted areas and 220 dpm/100cm^2 in unrestricted areas.

If this information changes the cost estimate for your Decommissioning Funding Plan Update, 1 May 2008, please provide the revised information.

3. In your Decommissioning Funding Plan Update, 1 May 2008, Table A.3.5 "Facility Components" uses a different set of assumptions for the amount of area/number of components to be decontaminated for the "Standard NIH Facility" than it does for the Clinical Research Center, Building 10 and Building 21. However, Table A.3.9 "Final Radiation Surveys (Work Days)" uses the same relative level of effort, based on a ratio of the square footage of occupied building space, for all the facilities. Explain why the same ratio is uses for all facilities, and additional effort is not required for the Clinical Research Center, Building 10 and Building 21.

You may wait to provide a revised Statement of Intent and Certification Statement until the amount of the financial assurance to be provided is accepted by the NRC.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material;** then **Regulations, Guidance, and Communications.** You may also obtain these documents by

contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention at the Region I Office and refer to Mail Control Nos. 138097, and 141494. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5040.

Sincerely,

Original signed by Elizabeth Ullrich

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

cc:
Robert A. Zoon, Radiation Safety Officer

DOCUMENT NAME: C:\FileNet\ML081770581.wpd

SUNSI Review Complete: EUllrich
After declaring this document "An Official Agency Record" it **will** be released to the Public.

To receive a copy of this document, indicate in the box: "**C**" = Copy w/o attach/encl "**E**" = Copy w/ attach/encl "**N**" = No copy

OFFICE	DNMS/RI	N	DNMS/RI		DNMS/RI			
NAME	EUllrich/EU							
DATE	6/25/2008							

OFFICIAL RECORD COPY