UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD – SUITE 102
KING OF PRUSSIA, PA 19406-1415

March 1, 2024

Kelvin Lee, Ph. D., Interim Vice Presicent for
Research, Scholarshipn and Innovation
University of Delaware
Department of Environmental Health and Safety
General Services Building, Room 132
222 South Chapel Street
Newark, DE 19716

SUBJECT: UNIVERSITY OF DELAWARE, REQUEST FOR ADDITIONAL INFORMATION, MAIL CONTROL NO. 639743

Dear Dr. Lee:

This is in reference to your letter dated February 7, 2024, requesting to amend NRC License No. 07-01579-19. In order to continue our review, we need the following additional information:

1. The proposed Radiation Safety Officer (RSO) does not appear to have adequate experience overseeing a Type A license of broad scope (broad scope A) program or working with the types, quantities, and forms of radioactive materials authorized by your broad scope A license, and the activities authorized on the license. The proposed RSO does not appear to have education, training, and experience in health physics that is sufficient for activities under your license, such as:

   - the handling and use of unsealed radioactive materials for research and development, including use of radioactive materials in animals, and therefore not qualified to advise the Radiation Safety Committee (RSC) on these issues, or to provide training to new users of these materials;

   - Performing radiation and contamination surveys, thyroid assay or other bioassay procedures, and air sampling and sample analysis for work with volatile materials;amd leak test sample analysis;

   - Calibration of survey meters and analytical instrumentation;

   - Disposal of radioactive waste;

   - Decontamination and decommissioning of facilities and equipment released for unrestricted use

   - Disposal of radioactive waste generated through use of unsealed materials;

   - Handling and use of source material such as uranykl acetate and uranyl nitrate,

possessed under a general license described in 10 CFR 40.22 and in use at your facility.

Because the actual use of licensed materials under your broad scope A license has been much less than is authorized, and your broad scope A program has a radiation safety committee that is well-established, we may be willing to approve the proposed RSO if a commitment is made that includes, for at least a one-year period:

- Mentoring by an RSO of another broad scope A program that authorizes a similar program. This mentoring could also be conducted by a consultant who has experience with a similar broad scope program. Such mentoring should include a commitment to regular meetings at least once every 3 months to review the activities of the proposed RSO, attendance at one or more RSC meetings of the other license (or attendance by the mentor at University of Delaware RSC meetings with the proposed RSO), and participation in other activities with unsealed materials that would expand the proposed RSO's knowledge and experience.

- Participation in formal health physics educational courses that address the issues with handling of unsealed materials, including topics such as basic radiation physics; appropriate contamination controls, surveys, and instrumentation for the range of materials authorized on the license; dosimetry (external and internal) for the materials and activities authorized by the license; sample collection and analysis for the activities required for the materials; calibration of survey meters and analytical instrumentation; and waste disposal activities. We request that you provide a list of suggested courses and a timeline for expected completion of the formal training courses and/or activities.

- Confirmation by the current Chair of the RSC that the RSC is supportive of the proposed RSO participating in the 1-year mentoring period, and the educational training; and

- Review of the University of Delaware broad scope A program by the mentor, or another qualified outside auditor(s), towards the end of the 1-year mentoring period. If the review is sufficient in scope, it may be the same review as is required annually pursuant to 10 CFR 20.1101.

2. Alternately, the above requirements may be reduced by amendment of the broad scope A materials, types, forms, quantities and/or activities authorized on the license. The extent of the training and experience required for the proposed RSO would depend on the extent of the amendment of the license. A limited scope license for the university would eliminate the need for the RSO and RSC to approve users and uses, and the license would be limited to only the types, forms, quantities and activities needed by the authorized users who would be approved by the NRC and named on the license.

We will continue our review upon receipt of this information. A pdf of a letter signed by management may be sent be electronic mail to Elizabeth.ullrich@nrc.gov. Alternately, a hard copy mail be mailed to my attention at:

Mail Control No. 639743
USNRC, Region I
Division of Radiological Safety and Security
475 Allendale Road – Suite 102
King of Prussia, PA 19406

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

An electronic version of the NRC's regulations is available on the NRC Web Site at: www.nrc.gov. Additional information regarding use of radioactive materials may be obtained on the NRC Web Site at: http://www.nrc.gov/materials/miau/mat-toolkits.html. This site also provides the link to the toolbox for updated information on the revised regulations for naturally-occurring and accelerator-produced radioactive materials (NARM).

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at: http://www.nrc.gov/reading-rm/adams.html. Please be aware that you may request that certain portions of your submittal to NRC be withheld form public disclosure as proprietary information. To do this, you must execute an affidavit as specified in 10 CFR 2.390. You must list all portions that you wish to be held proprietary, along with your reasoning as to why that is appropriate. While it is allowable, please refrain from submitting proprietary information in support of a license unless necessary. Keep in mind that all NRC licenses are considered to be in the public domain, and therefore may be viewed by any member of the public who requests to see them.

If you have any questions regarding this request for additional information, please contact me at 240-704-4575 (cell) or by electronic mail to Elizabeth.ullrich@nrc.gov.

Thank you for your cooperation.

Sincerely,

ELIZABETH ULLRICH

Digitally signed by ELIZABETH ULLRICH
Date: 2024.03.01 15:16:50 -05'00'

Betsy Ullrich, Senior Health Physicist
Commercial, Industrial, R&D
and Academic Branch
Division of Radiological Safety and Security
Region I

License No. 07-01579-19
Docket No. 030-10925
Mail Control No. 639743

cc: Krista Murray, EHS Director
W. Fendt, Radiation Safety Officer

UNIVERSITY OF DELAWARE, REQUEST FOR ADDITIONAL INFORMATION, MAIL CONTROL NO. 639743 DATED MARCH 1, 2024

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