



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

September 10, 2018

Mary Stiker
Radiation Safety Officer
Indiana Department of Homeland Security
Indiana State Department of Health
Office of Fire Marshal/HazMat-Indiana
Government Central South
302 W. Washington St.
Room E-241
Indianapolis, IN 46204

Dear Ms. Stiker:

We have reviewed the renewal application dated May 24, 2018 for NRC License No. 13-06028-02. Please note that, the licensing guidance for the type of your license is NUREG-1556, Volume 7, Revision 1, published in February 2018; however, your renewal application appeared to be prepared using NUREG-1556, Volume 7 dated December 1999. For your references, a pdf copy of NUREG-1556, Volume 7, Revision 1 can be found at <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v7/>. As discussed with you on a telephone conference on September 7, 2018, we will need the following information to complete our review.

- 1) You requested authorization for Anne Shanahan, Ph.D., and Aaron Bolner as users for all licensed materials listed in your license. Please provide additional information regarding the hands-on use of radioactive materials for both persons, including the radioactive isotopes used, physical/chemical forms, quantities handled, activities performed, and duration of experience. Please note that, authorizations for a new user will be based on his/her training and experience related to the use of your licensed materials.
- 2) Your current license is authorized for polonium-210 (Item 6.B) and curium-244 (Item 6.G); however, your renewal application does not address those isotopes. Please provide additional information about those sources. If you have never possessed them, please state. If you have disposed them, please provide information regarding the disposal including the transferring receipt and the last leak test records, if possible.
- 3) Please confirm that the sealed sources authorized in Items 6.J (curium-244) and Item 6.K (americium-241) are Oxford Instruments Measurement Systems Model 840 as listed in your current license.
- 4) The current license does not authorize for sealed sources under Item 6.A (Atomic Nos. 1 through 83). The renewal application requests for any physical form (sealed and unsealed material). Please provide a confirmation for your intention and the maximum total possession limit for Item 6.A.
- 5) The last paragraph in Section 5 of your renewal application cited an incorrect NRC

- regulation (10 CFR 30.55(d), instead of 10 CFR 30.35(d)). Please provide the following statement: "In addition to the possession limits in Item 8 of the license, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) or 40.36(b) or 70.25(d) for establishing decommissioning financial assurance."
- 6) With regard to decommissioning records maintaining, provide the following statement: "Pursuant to 10 CFR 30.35(g), 10 CFR 40.36(f), 10 CFR 70.25(g) and 10 CFR 70.51(b)(3), as appropriate, the licensee will maintain records important to decommissioning and transfer these records to an NRC or Agreement State licensee before licensed activities are transferred or assigned, in accordance with 10 CFR 30.34(b), 10 CFR 40.46, and 10 CFR 70.36, as appropriate. Furthermore, pursuant to 10 CFR 30.51(f), 10 CFR 40.61(f), and 10 CFR 70.51(a)(3), as appropriate, prior to license termination, we will forward the records required by 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g), as appropriate, to the appropriate NRC Regional Office."
 - 7) As a part of the renewal process, please provide a copy of the most current delegation of authority for the Radiation Safety Officer.
 - 8) Provide a description of the radiation safety training program for individuals working in or frequenting the restricted areas (occupationally exposed Individuals and ancillary personnel), including topics covered, groups of workers, assessment of training, qualifications of instructors, and the method and frequency of training.
 - 9) For each location of use, please describe the facilities and equipment that will be available at each location where radioactive material will be used (see Appendix G of NUREG-1556, Volume 7, Revision 1 for topics to consider), include the area(s) assigned for the receipt, storage, security, preparation, measurement, use, and disposal of radioactive materials (diagrams should be drawn to a specified scale or dimensions with a North indication.) Additionally, you provided that only sealed sources have been stored and used at 7100 E. Troy Ave., Indianapolis, Indiana; please provide a confirmation. You also stated that the licensee has used licensed sealed sources at its temporary job sites throughout the state of Indiana for training of first responders and emergency personnel and that the licensee would like to continue these activities. Please provide a statement requesting that the licensee will use sealed sources for training purposes at its temporary job sites.
 - 10) You stated that some licensed materials used at 550 W. 16 St., Indianapolis, Indiana, may become airborne. Please provide the diagrams that shows the ventilation system for the areas (fume hoods, etc.) where licensed materials may become airborne and the schematic descriptions of the ventilation system including the airflow rates, pressures, filtration equipment (HEPA filter, etc.), and monitoring system (see NUREG-1556, Volume 7, Revision 1, Section 8.9 and Appendix B, Item 9); and confirm that licensed materials which may become airborne will only be handled in the operational fume hoods.
 - 11) You provided a list of radiation monitoring instruments and stated that survey instruments will be calibrated by other authorized licensees. Please provide the following statement: "We will use instruments that meet the radiation monitoring instrument specifications published in Appendix I in NUREG-1556, Volume 7, Revision 1,

- 'Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope.' We reserve the right to upgrade our survey instruments as necessary. Instruments will be calibrated before first use, at least annually thereafter, and after any repair, by a vendor that the NRC or an Agreement State has licensed to perform instrument calibration."
- 12) 10 CFR 20.1801 and 20.1802 require the licensee to provide security and accountability for their licensed materials, please provide the following statement: "We have developed, implemented, and maintained procedures for ensuring accountability of licensed materials at all times. Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license. Records of inventory will be maintained for a period of 3 years from the date of each inventory, and will include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory."
 - 13) You stated that individuals who are working with licensed materials will be provided personal dosimeters. Please provide the following statement: "We will monitor individuals in accordance with the guidance in the section titled, 'Radiation Safety Program—Occupational Dose' in NUREG—1556, Volume 7, Revision 1, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Academic, Research and Development and Other Licenses of Limited Scope.'"
 - 14) For the safe use of licensed materials, security, and emergency procedures, please provide the following statement: "We have developed, implemented, and maintained procedures for safe use of licensed materials, security and emergencies."
 - 15) To monitor the radiation contamination levels at your facilities in accordance with 10 CFR Part 20, please provide the following: "We will survey our facility and maintain contamination levels in accordance with the survey frequencies and contamination levels published in Appendix M in NUREG—1556, Volume 7, Revision 1, 'Program-Specific Guidance About Academic Research and Development, and Other Licenses of Limited Scope.'"
 - 16) You stated that the licensee will perform the leak test for their sealed sources. Please provide the following statement(s): "Leak tests will be performed at the intervals approved by the NRC or an Agreement State and specified in the Sealed Sources and Devices Registrations (SSDR) certificate" and a) "We will implement the model leak test program published in Appendix N in NUREG—1556, Volume 7, Revision 1 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Academic, Research and Development, and Other Licensees of Limited Scope'" or b) submit a description of alternate equipment and procedures to evaluate a radiological hazard and for determining whether there is radioactive leakage from sealed sources or plated foils.
 - 17) With regard to the radioactive waste management, provide the following statement: "We will use the decay-in-storage model waste procedures that are published in Appendix P in NUREG—1556, Volume 7, Revision 1, 'Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope.'" Alternatively, you could provide a copy of the decay-in-storage procedure.

Please provide the response in writing with an authorized signature and date by October 9,

2018. To facilitate proper handling of correspondences in our office, please reference Mail Control No. 608948 in your response. For your conveniences, you could fax the response to 630-515-1078. If you have any questions or require clarification on any of the information stated above, please do not hesitate to contact me at 630-829-9887 or frank.tran@nrc.gov.

In accordance with Title 10 of the *Code of Federal Regulations* (CFR) 2.390 of the U.S. Nuclear Regulatory Commission's (NRC) "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,



Frank P.D. Tran
Health Physicist
Materials Licensing Branch

License No. 13-06028-02
Docket No. 030-37731