



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

April 28, 2020

Michael S. Gray
Health Physics Manager
Department of the Army
Commandant
U.S. Army Chemical, Biological, Radiological, and Nuclear School
14030 MSCoE Loop
Suite 1843
Fort Leonard Wood, MO 65473-8926

Dear Mr. Gray:

We have reviewed your response letter received April 21, 2020 (ML20113E919) regarding the renewal application dated November 19, 2019 for NRC License No. 24-32221-01. We will need the following information to complete our review.

- 1) A confirmation that licensed material will not be used in or on human, in animals, or in tracer and field studies in which licensed material is released into the environment.
- 2) You provided that a radiation safety committee (RSC) quorum will need at least four voting members listed in Section 2 of Item 7 of your letter. We think it would be Section 3 of Item 7; please correct as necessary. You also stated that an individual can hold more than one voting member, for example a person can be the Radiation Safety Officer and Health Physics Manager. Please help us to understand if the RSC quorum will be at least four individuals in the RSC or four positions.
- 3) With regards to the deletion of Pu-239 and U-233 listed in Items 6.F. and 6.G. of the current license, please provide a copy of complete Form 540 with a signature of Rad Solutions LLC's representative who confirmed the receiving of your licensed material for Item 9 of the form.
- 4) Your license is authorized for research and development; therefore, we utilize the guidance in NUREG-1556, Volume 7, Revision 1 in the review of the application. Based on Item 8.7.2, "Authorized User", of the guidance the proposed user who use or direct supervise the use of licensed material should have (i) a college degree at the bachelor's level or equivalent training and experience in physical, chemical, biological sciences, or engineering, and (ii) training and experience commensurate with the scope of proposed activities, including hands-on training with radioactive materials. Please describe how the licensee will ensure that a proposed user will meet item (i), has completed the hands-on training and is competent for the proposed licensed material and uses.
- 5) Provide the topics which will be covered during the annual radiation safety refresher training (see Appendix F to NUREG-1556, Volume 7, Revision 1 for references).

- 6) Please note that licensee may not transfer the responsibilities of the RSO to other individuals. Many tasks and duties associated with managing the program may be assigned or delegated to other qualified individuals. The responsibility for these tasks and duties, however, lies with the RSO. The NRC does recognize that a qualified individual will have to fill in for the RSO when the RSO will be away for short periods of time for professional conferences, vacation, or illness. Please confirm that the alternate RSO will only act as RSO for a short period time when the RSO is temporarily absent.
- 7) Section 5 of Item 10 of your letter mentioned an old version of American National Standards Institute (ANSI) N323a-1997. Per NUREG-1556, Volume 7, Revision 1, the accepted version is ANSI N323AB-2013. Please confirm that the licensee will calibrate its radiation survey instrument in accordance with ANSI N323AB-2013 or provide justifications for using the old standard ANSI N323a-1997. In addition, if the licensee plans to conduct calibration for its radiation survey instrument in-house, please provide a description of the training program for individuals who will perform the radiation survey instrument's calibration.
- 8) In the application, the licensee requests that the RSC will approve or disapprove of changes to its facilities and equipment, user qualification, safe use of radionuclides and emergency procedures, radiation survey, and leak testing. The NRC may permit licensees make changes to its radiation safety program; however, the licensees must ensure the changes are in compliance with the regulations and license. Please describe the steps the licensee will take when making changes to their radiation safety program or provide the following.

"The licensee may make program changes and changes to procedures specifically identified in the letter received April 21, 2020 (ML20113E919) without prior Commission approval as long as:

 - a) The proposed revision is documented, reviewed, and approved by the licensee's Radiation Safety Committee in accordance with established procedures prior to implementation;
 - b) The revised program is in accordance with regulatory requirements, will not change the license conditions, and will not decrease the effectiveness of the Radiation Safety Program;
 - c) The affected licensee's staff is trained in the revised procedures prior to implementation;
 - d) The licensee's audit program evaluates the effectiveness of the change and its implementation; and
 - e) The licensee will retain a record of each radiation safety program change for 5 years. The record will include a copy of the old and new procedures, the effective date of the change; and the record of approval by the Radiation Safety Committee."
- 9) In Sections 7, 8 and 9 of Item 10 of your letter, the licensee states that it will adopt AR 385-10, DAPAM 385-24, and Army Technical Manuals and Bulletins for the safe use of radionuclides and emergencies, and AR 385-10, DAPAM 385-24, DAPAM 385-25, Army Technical Manuals and Bulletins for radiation surveys and for sealed sources leak testing, and where applicable, Appendixes K, L and M, respectively, of NUREG-1556, Volume 11, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Licenses of Broad Scope". Please note that, AR 385-10, DAPAM 385-24, DAPAM 385-25, Army Technical Manuals and Bulletins have not been endorsed by the NRC. Therefore, based on the licensing guidance you could commit to follow Appendixes K, L and M of NUREG-1556, Volume 11, Revision 1 for the safe use

of radionuclides and emergencies, radiation surveys and sealed source leak tests, respectively, and revise them for your needs in accordance with your established procedures. Alternatively, you could provide a copy of the current version of the AR 385-10, DAPAM 385-24, DAPAM 385-25, Army Technical Manuals and Bulletins which you will adopt for our review.

- 10) Please confirm that besides disposing your licensed materials with half-life less than 120 days by decay-in-storage, you will transfer your licensed material and their wastes to authorized licensees who are licensed by the NRC or Agreement States only.

We request that you submit your signed and dated written response to this letter by May 12, 2020. Please reference Mail Control Number 617077 in the cover letter to facilitate proper correspondences handling in our office. To expedite the licensing process, you could fax your 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 630-829-9623 or frank.tran@nrc.gov.

In accordance with Title 10 *Code of Federal Regulations* 2.390 of the U.S. Nuclear Regulatory Commission's (NRC) "Rules of Practice," a copy of this letter 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. 24-32221-01
Docket No. 030-35257
Control No. 617077