



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
1600 EAST LAMAR BOULEVARD  
ARLINGTON, TEXAS 76011-4511

June 13, 2012

U.S. Army Corps of Engineers  
Engineer Research & Development Center  
Waterways Experiment Station  
ATTN: John A. Lindigrin  
Radiation Safety Officer  
3909 Halls Ferry Road  
Vicksburg, MS 39180-6199

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION

The U.S. Nuclear Regulatory Commission (NRC) has initiated the technical review of the U.S. Army Corps of Engineers, Engineer Research & Development Center, application for an amendment of NRC License 23-01544-10 dated March 28, 2012, and additional information is needed to complete the review process. Please provide the following information by close of business on July 22, 2012. Make reference to mail control number 577259 when providing your response.

1. The NRC's NUREG-1556, Volume 7, provides guidance on the type of information that needs to be submitted to the NRC in support of amendment requests from licensees seeking to use radioactive material under research and development. Provide the information requested in pages C-1 through C-9, make the appropriate commitments, and submit. NUREG-1556, Volume 7, can be found at: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v7/>.
2. The U.S. Army Corps of Engineers, Engineer Research & Development Center, currently has in place an outdated decommissioning financial assurance statement of intent letter dated July 24, 2006, in the amount of \$225,000 for the byproduct material authorized in the license (hydrogen 3, carbon 14, nickel 63, zinc 65, and cadmium 109). Submit an updated statement of intent letter in the amount of \$225,000 for the byproduct material. A sample statement of intent letter is found in Appendix A of NUREG-1757, Volume 3 which can be found at: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1757/v3/>.
3. The request to authorize possession and use of 200 pounds of depleted uranium (approximately 31 millicuries of source material) in any form requires a separate decommissioning financial assurance statement of intent letter in the amount of \$225,000. Submit a statement of intent letter in the amount of \$225,000 for the source material (200 pounds of depleted uranium). A sample statement of intent letter is found in Appendix A of NUREG-1757, Volume 3 which can be found at: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1757/v3/>.

4. Confirm that the procedures and experiments described in sections 1 through 7 of the document titled "Depleted Uranium Detection, Discrimination, and Removal Program, DU Handling and Storage Plan for DU Laboratory and Test Stand Evaluation Studies, U.S. Army Engineer Research and Development Center" dated March 22, 2012, will not involve release of depleted uranium into the environment.
5. The amendment application states on section 8 that DU penetrators fragments will be submerged in aqueous solutions (chemical process) as well as placing the DU penetrators in soil and irrigated with water. Confirm that the procedures and experiments described in sections 8 through 11 of the document titled "Depleted Uranium Detection, Discrimination, and Removal Program, DU Handling and Storage Plan for DU Laboratory and Test Stand Evaluation Studies, U.S. Army Engineer Research and Development Center" dated March 22, 2012, are going to take place exclusively in indoor laboratory settings, and that no release to the environment will occur during the conduct of these experiments.
6. Expand the description of the bioassay program. Describe instances in which bioassay will be conducted, personnel that will be assayed, frequency of bioassays, entity that will conduct the analysis, reporting of results to personnel, etc. For your reference, the NRC provides guidance on uranium bioassay in Regulatory Guide 8.11. This document can be found at: <http://pbadupws.nrc.gov/docs/ML0037/ML003739450.pdf>.

In accordance with 10 CFR 2.390 of the NRC's "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 document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Thank you for your cooperation.

Sincerely,

**/RA/**

Roberto J. Torres, Senior Health Physicist  
Nuclear Materials Safety Branch B

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Control: 577259