

June 22, 2012

Ms. Phyllis Anderson, Acting Director  
Assessment and Remediation Division  
Office of Superfund Remediation  
and Technology Innovation  
U.S. Environmental Protection Agency  
M.S. 5204P  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

SUBJECT: RESPONSE TO RECOMMENDATIONS REGARDING THE  
DECOMMISSIONING OF THE U. S. DEPARTMENT OF AGRICULTURE  
LOW-LEVEL RADIOACTIVE BURIAL SITE IN BELTSVILLE, MARYLAND

Dear Ms. Anderson:

Thank you for your May 21, 2012, letter that outlined the U.S. Environmental Protection Agency's (EPA's) views regarding the decommissioning of the U.S. Department of Agriculture (USDA) Low-Level Radioactive Burial Site at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland. The U.S. Nuclear Regulatory Commission (NRC) consulted the EPA about the decommissioning of the BARC site because the proposed Derived Concentration Guideline Levels (DCGLs) in the Revised Final Decommissioning Plan (DP), dated January 2012 and the Technical Supplement, dated February 22, 2012, for certain radionuclides, exceeded the soil concentration values in Table 1 of the 2002 "Memorandum of Understanding (MOU) between NRC and EPA on Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites." In your letter, you stated:

In EPA's view, if the licensee is unable to meet the Table 1 values for residential, NRC should consider the use of a more restricted land use, such as industrial, and appropriate institutional controls. In addition, NRC should consider determining if the use of site-specific parameters would not alter NRC's obligation to possibly trigger a Level 2 consultation, if Table 1 soil values were found to be exceeded after the Final Status Survey measurements. If a Level 2 consultation is needed, NRC should furnish any site-specific parameters used and their rationale for allowing their use during the dose assessment for the site, in order to facilitate EPA offering its views with a more accurate estimate of the risks posed by residual contamination at the site.

NRC performed an extensive review of the DP for the BARC site and carefully evaluated the dose assessment methodology and parameters to ensure that dose estimates were adequately supported. Based on this review, the USDA revised their original DP in response to NRC's comments that focused on justifying the conceptual model and parameters used in the dose assessment. In most cases, NRC prefers to use site-specific parameters to ensure that the most accurate dose estimates are made. Due to the complexity of the BARC site, and the number of radionuclides expected to be present, it is not clear that default screening parameter values would always produce the most accurate dose estimates.

The NRC staff has concluded that the proposed DCGLs contained in the Revised Final Decommissioning Plan and Technical Supplement are consistent with Title 10 of the Code of Federal Regulations (CFR), Part 20, Subpart E. Specifically, the USDA proposes to remediate the site to meet the requirements in 10 CFR Part 20, Subpart E for unrestricted use, using site-specific DCGLs based on the most conservative of the dose scenarios evaluated. As such, the doses to the average member of the critical group at the BARC site will comply with NRC's criteria in 10 CFR Part 20, Subpart E, which stipulates an all-pathways dose criteria of 0.25 millisieverts per year (25 millirem per year) and that doses be as low as is reasonably achievable. The 10 CFR Part 20 dose criteria are fully protective of public health and safety and the NRC staff believes that the use of site-specific parameters has resulted in the most accurate estimate of the doses from residual radioactivity at the site.

Following site remediation activities, NRC staff will review the information in the Final Status Survey (FSS) reports and compare the levels of residual radioactivity to the MOU trigger levels. If the FSS measurements exceed the trigger levels in the MOU, NRC staff will contact your office pursuant to the MOU, and provide additional information on residual concentrations and land use to facilitate EPA offering its views on the decommissioning of this site.

If you have any questions regarding this letter or the decommissioning activities at the BARC site, please contact Dr. Keith I. McConnell, Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate, at (301) 415-7295.

Sincerely,

**/RA/**

Larry W. Camper, Director  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

Docket No.: 030-04530  
License No.: 19-00915-03

cc: S. Walker, USEPA  
J. Jenson, USDA

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