



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

December 21, 2005

Docket No. 04000341  
Control No. 137882

License No. STC-133

F. Kevin Reilly  
Director, Directorate of Environmental Management  
Defense Logistics Agency  
Defense National Stockpile Center  
8729 John J. Kingman Road, Suite 3229  
Fort Belvoir, VA 22060-6223

**SUBJECT: DEFENSE LOGISTICS AGENCY, REQUEST FOR ADDITIONAL  
INFORMATION CONCERNING APPLICATION FOR AMENDMENT TO  
LICENSE, CONTROL NO. 137882**

Dear Mr. Reilly:

This is in reference to your letter dated October 19, 2005, requesting to amend Nuclear Regulatory Commission License No. STC-133. Specifically, you requested to use Federal Guidance Report Number 13 (FGR13) to assess dose and Derived Concentration Guideline Levels (DCGLs) for the decommissioning of the Defense National Stockpile Center (DNSC) Binghamton Depot, Hoyt Avenue, Binghamton, NY, 13901-1699 and the DNSC Somerville Depot, 152 US Highway 206 South, Hillsboro, NJ, 0844-4135.

FGR13 uses different weighting factors than are stated in 10 CFR 20; therefore, the approval of the use of the FGR13 is similar to the approval of any other modeling assumption or parameter that requires the NRC to grant an exemption to NRC regulations. In addition, a staff review is needed to make sure that the FGR13 conversion factors are being used correctly in calculating the DCGLs, which are used to show compliance with Subpart E of 10 CFR 20. In order to continue our review, we need the following additional information:

Please submit a request for the site-specific DCGL for each radionuclide of concern. If multiple radionuclides are present, the dosimetry method must be consistent for all radionuclides. That is, you may not "pick and choose" different dosimetry methods for the different radionuclides (e.g., using Federal Guidance Report No. 11 for six radionuclides and FGR13 for three radionuclides). The following information should be submitted to support each proposed site-specific DCGL:

- a. Scenarios and critical group assumptions should be reviewed to evaluate age-based considerations. Provide justification for the age group which is your critical group based on the possible exposure scenarios and radionuclides at your sites. These justifications could be either qualitative, reasoned arguments, comparative quantitative analysis, or bounding assumptions.

- b. If inhalation is a significant pathway, the lung clearance form needs to be justified. These justifications could be either qualitative, reasoned arguments, comparative quantitative analysis, or bounding assumptions.
- c. Provide the input and output files used in calculating the proposed DCGLs in the program code or model used. You may provide photocopies of the input and output files used, or actual files. Additionally, if other than DandD or RESRAD/RESRAD-BUILD codes are used, provide documentation of code testing, verification, and QA/QC review.
- d. For each of the parameters used in the analysis, other than the default values, discuss your justification of the appropriateness of the parameter values selected in lieu of the default values.
- e. Provide Uncertainty/Sensitivity Analyses of the site-specific DCGLs model.

Additional guidance associated with the Technical Basis for Site-Specific Dose Modeling Evaluations may be found in Appendix I of NUREG-1757, Volume 2, "Characterization, Survey, and Determination of Radiological Criteria." You should review this guidance and be sure to submit all of the information required.

Current NRC regulations and guidance are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **Nuclear Materials; Medical, Industrial, and Academic Uses of Nuclear Material**; then **Toolkit Index Page**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 9:00 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention at the Region I Office and refer to Mail Control No. 137882. If you have any technical questions regarding this deficiency letter, please call Dennis Lawyer at (610) 337-5366.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we will assume that you do not wish to pursue your application.

Sincerely,

***Original signed by Elizabeth Ullrich***

Betsy Ullrich  
Senior Health Physicist  
Commercial and R&D Branch  
Division of Nuclear Materials Safety

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**SISP Review Complete: DLawyer**

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