



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

August 17, 2006

Docket Nos. 030-05215
040-06377
Control Nos. 138807
138808

License Nos. 29-00047-02
SUB-348

Richard W. Fliszar
Radiation Protection Officer
Department of the Army
U.S. Army Research, Development and Engineering
Command
Armament Research, Development and Engineering
Center
Picatinny, NJ 07806-5000

SUBJECT: DEPARTMENT OF THE ARMY, REQUEST FOR ADDITIONAL INFORMATION
CONCERNING APPLICATION FOR AMENDMENT TO LICENSE, CONTROL
NOS. 138807 AND 138808

Dear Mr. Fliszar:

This is in reference to your letter dated April 28, 2006, and the document "New World Technology, Final Report, Picatinny Arsenal Radiological Remediation/Release Surveys and Sampling Project, Revision 3, January 30, 2006, Project No. USA 99-109" (Final Report, Rev.3) requesting to amend Nuclear Regulatory Commission License Nos. 29-00047-02, and SUB-348. In order to continue our review, we need the following additional information:

1. In a previous letter dated September 15, 2004, we requested additional information. Based on a review of the Final Report, Rev. 3, the requested information is provided in Section 5.2. However, although the the documentation generated in developing the area factors and the DCGL for barium-133 are included in Appendix JJ, the sensitivity analyses do not appear to be included in the Final Report, Rev. 3. Please provide the sensitivity analyses used to identify the key parameters which have the largest effect on the calculated dose.
2. Your letter requests release for unrestricted use of Building 167 and its surrounding grounds, Bunker 3030, and Magazine 3018. Your submission included characterization survey information for other areas, and it does not appear that any action to amend your license is requested for the other areas. If the additional information for other areas requires our review and amendment of the license, please make that request in a separate letter from this action for release of the three areas described above.
3. Your letter stated that the proposed Derived Concentration Guideline Levels (DCGLs) were based on RESRAD Build Version 3.21 and RESRAD Version 6.21. However, the report submitted stated that RESRAD Build Version 3.22 and RESRAD Version 6.3

were used. Confirm which codes were actually used in the report submitted with your letter.

4. Page 5 of the Final Report, Rev. 3, states that thorium-232 (Th-232) is one of several radionuclides whose presence would have little effect on the results of the final status surveys. Considering the very low screening value for residual Th-232, explain why you believe this radionuclide will not affect the final status surveys.
5. Explain why the values of the DCGLs for several radionuclides in Table 3 on page 22 are different from those listed in Table 6 on page 27.
6. An error message is listed on the bottom of page 24. Please provide the information that should be there.
7. Section 9.18 and 9.19 discuss contaminated concrete in the Building 167 basement. The concentration of residual contamination in the concrete is compared to the soil screening values. The soil screening values are not approved criteria for contaminated concrete. At this time, the NRC does not have screening values for solid contaminated materials. You should propose a DCGL for your concrete, and show that such material meets the NRC's unrestricted release criteria of 25 millirem in a year (or your criteria of 15 millirem in a year).

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Academic, and Industrial 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 8:00 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 Nos. 138807, and 138808. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5040.

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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SUNSI Review Complete: EUllrich

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