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

April 10, 2006

Docket No. 04000341 License No. STC-133
Control No. 137882

F. Kevin Reilly
Director, Directorate of Environmental Management
Defense Logistics Agency
Defense National Stockpile Center
8725 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. In order to continue our review, we need the following additional information:

1. The license amendment uses the default screening scenario (an adult in a light industrial activity) because, according to page A-1 of the amendment, "the result of a screening group review is consistent with the DandD building occupancy scenario." No additional information is provided on the screening group review. NUREG-1757, Volume 2, Appendix I.6.3.6 states that "(s)cenarios and critical group assumptions should be revisited, and justified, to explore at age-based considerations." (sic) Child (approximately 5 years old) dose factors for the radionuclides involved in this license amendment vary between 3 and 10 times the adult dose conversion factors. DLA states that the assumptions from DandD meet their situation including the assumption that the building will be commercially used after decommissioning. However, DLA does not justify why only adults will be present or how the building is inappropriate to be the site of a childcare center.

   Please provide additional justification on the age-based scenario selected for the DCGLs. This could include information on the buildings or comparable analysis to show that adult DCGLs bound the exposure for other age-specific scenarios.

2. The documents entitled: "Radiological Historical Site Assessment - Defense National Stockpile Center; Somerville Depot, Hillborough, NJ", dated January 2006; "Final Status Survey Plan DNSC, Somerville Depot, Hillsborough, NJ", dated February 2006; "Radiological Historical Site Assessment Report, Defense National Stockpile Center, Binghamton Depot, Binghamton, NY, Revision 1", dated February 2006; and Final Status Survey Plan, DNSC, Binghamton Depot, Binghamton, NY", dated February 2006 were reviewed against the guidance in NUREG-1757, Volume 1, Revision 1, "Decommissioning Process for Materials Licensees" Appendix D, checklist D.2

Decommissioning Plan Checklist. The additional requested information is listed by depot location. After the requested item is the section number in NUREG-1757, Volume 1, Revision 1, where a more detailed description of purpose, acceptance criteria, and evaluation criteria may be found. You may wish to refer to these sections before submitting additional information.

Based upon this review, the following additional information is requested for the Somerville Depot:

a) The county in which the site is located (16.3.1)
b) A map that shows the detailed topography of the site using a contour interval (16.3.1)
c) A summary of anticipated land uses (16.3.3)
d) A statement acknowledging that circumstances can change during decommissioning, and, if the licensee determines that the surveys cannot be completed as outlined in the schedule, the licensee will provide an updated schedule to NRC (17.1.5)
e) A description of the responsibility and authority to ensure that decommissioning activities are conducted in a safe manner and in accordance with approved written procedures (17.2.1), and
f) A description of how work performance is evaluated (17.2.2, 17.6.1).

Based upon this review the following additional information is requested for the Binghamton Depot:

g) A summary of anticipated land uses (16.3.3)
h) A statement acknowledging that circumstances can change during decommissioning, and, if the licensee determines that the surveys cannot be completed as outlined in the schedule, the licensee will provide an updated schedule to NRC (17.1.5)
i) A description of the responsibility and authority to ensure that decommissioning activities are conducted in a safe manner and in accordance with approved written procedures (17.2.1), and
j) A description of how work performance is evaluated (17.2.2, 17.6.1).

3. Both the Somerville and Binghamton Depots survey plans calibrate the alpha instrument for fixed point and alpha scans using a 2-inch diameter source. The sizes of the probes for these instruments are approximately 83 to 100 square centimeters. According to NUREG-1507, "Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions", Table 4.8, Minimum Detectable Concentration for Various Source to Detector Distances for Alpha Emitters, shows that the efficiency of an alpha meter is reduced approximately 20% when calibrated by a distributed source instead of a disk. In section 4.4, Source Geometry Factors, it states, "…if the contamination can be characterized by relatively large uniform areas of activity, then the detector should be calibrated to a distributed or extended source." Please discuss the reasons for not using a large distributed source or confirm that you'll perform calibration with a distributed source.

4. For the Somerville Depot, confirm that you will add Warehouse 1, Section D, Bay 22 as a class 3 location. In a DNSC inspection report entitled, Notification of Stockpile Inspection, dated December 8, 1998, documented Tungsten Concentration, type C, Wolframite Lots W139E/143A a total of 138 steel drums and Tungsten Concentration Wolframite Lot No 161R1 being stored in Warehouse 1, Section D, Bay 22, Row 4 & 5. This material is source material and the area it was located would be considered an impacted area.

Current NRC regulations and guidance are included on the NRC's website at 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 or 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

cc:
Michael J. Pecullan, Deputy Manager Occ. Radiation Protection Program
Claude Wiblin, CHP

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