



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
WATERVLIET ARSENAL
1 BUFFINGTON STREET
WATERVLIET, NY 12189-4000

October 3, 2013

Watervliet Arsenal Safety Office, TAWV-XO-S

Mail Control #: 581165

U.S. Nuclear Regulatory Commission
Region I
Licensing Assistant Team
Division of Nuclear Materials Safety
ATTN: Betsy Ullrich
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713

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SUBJECT: DEPARTMENT OF THE ARMY, REQUEST FOR ADDITIONAL INFORMATION
CONCERNING RENEWAL APPLICATION FOR NRC LICENSE STB 1554, CONTROL
NO: 581165

Dear Ms. Ullrich:

The below information is in response of your inquiry letter dated September 12, 2013.

- 1) The 1,000 kilograms limitation is for the weight of the gun barrels that are brought on to the installation for testing after they have had DU rounds fired from them. There will be a very small quantity of DU material in the gun barrels, which is DU contamination resulting from the fired DU rounds. The 23 kilogram number indicated in the renewal application was from prior application submittals for this license. Hence, the 23 kilogram number was provided in this renewal application and was thought to be a maximum amount for any DU contamination, since the contamination amount is considered to be a small quantity. The gun barrels with contamination are disposed of as radioactive waste through the Army's channels for disposition of radioactive waste.
- 2) The cutting and polishing of the material is not of actual DU, but of the gun barrel metal that may have some small amount of DU contamination. The small amount has been determined from Army studies of gun barrels which have fired DU rounds and due to the field countermeasures of non-DU firing after the DU firing, which minimizes the DU. Also, field routine cleaning removes particulate and residue material from the gun barrel. The amount of DU is unknown as to quantity and is depended on the number of DU rounds fired and countermeasures effectiveness with field cleaning.

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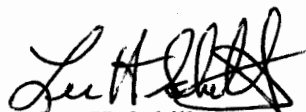
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NMSS/RGN1 MATERIALS-002

- 3) Studies done of DU contamination of gun tubes have indicated that gun tubes that fired DU munitions may have detectable contamination levels. The DU levels in tubes have measured below what would pose a threat to personnel health. Also, that the fixed contamination left behind in tubes is insufficient to measurably add to the natural background gamma dose and is the amount of DU is believed to be in the nanocurie range. However, there have been only a limited number of cases where contamination levels are much higher than release limits and this has been seen for rounds that have broken up in the gun tube. As indicated in the license application, the gun tube with potential contamination will be handled in a radiologically controlled area with appropriate handling procedures and surveys to ensure exposure is ALARA.
- 4) Safe use and emergency procedures are addressed for all radiological materials in WVAR 385-1. Specific procedures for the DU are stated in the DU SOP. Also, the Army as like any licensee is bound to monitoring personnel if they are likely to receive in any one year a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20.
- 5) Request a waiver from 10 CFR 40.42(d) (3) to allow intermittent work for Army missions, which may not occur in the frequency within 24 months. The Army needs a license to allow work as the need arises and the mission may need to be promptly conducted not allowing for a new license to be applied for. Request that this license be considered an on-call license. When the mission is required, we will ensure that controls are in place to include surveys and written policies. Contamination and dose rate limits will be assured for the licensed operations whether work is on-going or not. These surveys will be conducted during mission work and at the non-work times every six months. The licensed operations will be restricted until termination of the NRC license and appropriate decommissioning are accomplished.

If you have any questions regarding this renewal application, the point of contact is Mr. Matthew Church, Radiation Safety Officer, phone number (518) 266-5635.

Sincerely,



Lee H. Schiller
Colonel, U.S. Army
Commanding

CF:
AMSTA-CSC-Z, R. Swantek

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