



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

July 11, 2018

Shyla Schilling
General Manager
General Dynamics Ordnance and Tactical Systems,
Munition Services
4174 County Road 180
Carthage, MO 64876

Dear Ms. Schilling:

We have reviewed your application dated June 1, 2018 for a new NRC license. We used NUREG-1556, Volume 18, Revision 1 "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses" as a guide to review your application. NUREG-1556, Volume 18, Revision 1 can be found on the NRC's website at <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v18/>. Based on our review and the discussion with Mr. Carl Christiansen, Radiation Safety Specialist, on July 10, 2018, we will need the following information.

- 1) You provided that some projectiles may require further disassembly to separate the depleted uranium (DU) projectile from a wind screen and/or sabot. Please describe where and how the disassembly will be performed.
- 2) Describe how the parts that were in contact with DU projectiles be monitored for radioactive material contamination prior to disposing as non-radioactive waste.
- 3) Provide additional information for the proposed Radiation Safety Officer (RSO) regarding the education and his training and experience associated with radioactive material (DU) and proposed operations (demilitarization of munitions). In addition, please provide a copy of the delegation of authority for RSO (see the attached sample).
- 4) Submit a drawing or sketch of the proposed facility including the following information:
 - Identify area(s) assigned for the receipt, storage, preparation, handling, waste storage, and measurement of radioactive materials.
 - Show the relationship and distance between restricted areas and adjacent unrestricted areas.
 - Indicate the scale or include dimensions and a compass directional arrow to indicate "North" on each drawing or sketch.
 - Describe the means for securing radioactive materials from unauthorized removal.
 - Illustrate area(s) where explosive, flammable, or other hazardous materials may be stored.
 - Describe other safety equipment, if any, that may be used in case of accident such as reinforce concrete walls to protect workers and others from inadvertently detonating of a munition contained DU during the disassembly operations.
 - Provide the air flow rate and/or the pressure in the contained module where munitions containing DU projectile be separated.


- Provide the frequency that HEPA filter be monitored for radioactive contamination and be exchanged.
 - Describe how you ensure that no person is in the contained module when the contained module is in operations.
- 5) Provide a frequency that surface contamination at the work place be surveyed.
- 6) 10 CFR 20.1801 and 20.1802 require an NRC licensee to provide security for their licensed material. Please provide the following statement: "We will develop, implement, and maintain procedures for ensuring accountability of licensed materials at all times", and a description of the procedure(s) to minimize licensed materials be lost, stolen or misplaced.
- 7) With regard to the radiation survey instruments, please provide the following: "We will use instruments that meet the radiation monitoring instrument specifications published in Appendix F of NUREG-1556, Volume 18, revision 1, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses'. We reserve the right to upgrade our survey instruments as necessary. Survey instruments will be calibrated by an authorized license annually or at the frequency recommended by the manufacturer, whichever period is shorter."
- 8) Provide the exchange frequency for personal dosimeters and the following: "Personal dosimeters will be processed and evaluated by an authorized license who is accredited by National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology."

In addition to the above, please provide the most current radioactive materials license amendment issued to your company by the State of Illinois.

We request that you submit a written response to this letter by August 8, 2018. Your response must be dated and signed by a licensee's representative and please reference Mail Control Number 608993 in the response. To expedite the licensing process, you could fax the response to 630-515-1078. If you have any questions or require clarification on any of the information stated above, please do not hesitate to contact me at 630-829-9887 or frank.tran@nrc.gov.

In accordance with Title 10 of the *Code of Federal Regulations* Section 2.390 of the U.S. Nuclear Regulatory Commission's (NRC) "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,


Frank P. D. Tran
Health Physicist
Materials Licensing Branch

Model Delegation of Authority to RSO

Memo To: Radiation Safety Officer
From: Chief Executive Officer (or designee)
Subject: Delegation of Authority

You, _____, have been appointed radiation safety officer and are responsible for ensuring the safe use of radiation. You are responsible for managing the Radiation Protection Program, identifying radiation protection problems, initiating, recommending, or providing corrective actions, verifying implementation of corrective actions, stopping unsafe activities, and ensuring compliance with regulations. You are hereby delegated the authority necessary to meet those responsibilities, including prohibiting the use of byproduct material by employees who do not meet the necessary requirements and shutting down operations, when justified, to maintain radiation safety. You are required to notify management if staff does not cooperate and does not address radiation safety issues. In addition, you are free to raise issues with the U.S. Nuclear Regulatory Commission at any time. It is estimated that you will spend _____ hours per week conducting radiation protection activities.

Signature of Management Representative

Date

Name

Title

I accept the above responsibilities,

Signature of Radiation Safety Officer

Date

Name

cc: Affected department heads