



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

March 1, 2018

Advanced Combat Solutions, Inc.  
ATTN: Michael Ball  
Chief Executive Officer and Radiation Safety Officer  
333 Las Olas Way, CU# 1  
Fort Lauderdale, FL 33301

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR ADVANCED COMBAT  
SOLUTIONS, INC. AMENDMENT REQUEST DATED DECEMBER 4, 2017

Dear Mr. Ball:

This letter is in response to your amendment request dated December 4, 2017, requesting an amendment to your Exempt Distribution License 09-35310-01E and Sealed Source and Device Registration Certificate NR-1421-D-101-E. In reviewing your application, we find that additional information is required to complete our review. In the enclosure to this letter, we have summarized the issues not addressed in your application.

Please be aware that you may request that certain portions of your submittal to the U.S. Nuclear Regulatory Commission be withheld from public disclosure as proprietary information. To do this, you must execute an affidavit as specified in Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390. You must list all portions that you wish to be withheld as proprietary, along with your reasoning as to why that is appropriate.

Please submit the requested information 30 calendar days of the date of this letter. If we have not received complete information within 30 days, we will consider your request as having been abandoned by you. This is without prejudice to the submission of a complete new request.

If you have any questions, please contact me at [Tomas.Herrera@nrc.gov](mailto:Tomas.Herrera@nrc.gov) or at (301) 415-7138.

Sincerely,

/RA/

Tomas Herrera, Team Leader  
Materials Safety Licensing Branch  
Division of Materials Safety, Security, State,  
and Tribal Programs  
Office of Nuclear Material Safety  
and Safeguards

Enclosure:  
Request for Additional Information

M. Ball

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SOLUTIONS, INC. AMENDMENT REQUEST DATED DECEMBER 4, 2017

Date: March 1, 2018

DISTRIBUTION:  
SSD 18-08

**ADAMS Accession No.: ML18060A292**

<b>OFC</b>	NMSS/MSLB	NMSS/MSLB	NMSS/MSLB	NMSS/MSLB
<b>NAME</b>	DWeaver	THerrera	LSepulveda	THerrera
<b>DATE</b>	3/1/18	3/1/18	3/1/18	3/1/18

OFFICIAL RECORD COPY

**Advanced Combat Solutions, Inc. Amendment Request Dated December 4, 2017  
Request for Additional Information**

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the Advanced Combat Solutions, Inc. (ACS) amendment request dated December 4, 2017, and determined that additional information is needed. In order to continue with our review, please address the issues listed below. This information is required by Title 10 of the *Code of Federal Regulations* (10 CFR) 32.210, and described in the relevant guidance document NUREG-1556 Volume 3, Revision 2, titled "Applications for Sealed Source and Device Evaluation and Registration."

Description/Construction

1. The ACS amendment request dated December 4, 2017, indicates that the model LEMIRFL-3 will include a second tritium source, whereas the original LEMI Series only contained one. Please confirm our understanding. In addition, please indicate if the maximum activity of the model LEMIRFL-3 level will increase, and provide the new maximum activity level, if ACS does intend to increase the activity.
2. The ACS amendment requested the addition of three new device models, the ICSIHG-0.1, ICSIHG-1.1, and the LEMIRFL-3. Please describe the differences between these models and those currently registered in NR-1421-D-101-E.
3. For the model LEMIRFL-3 the amendment request states that the grove for the second source "will have enough room for a glass polymer bonding agent." Please confirm if this will be the same bonding agent that is used for the other models in the LEMI series.
4. Please provide the minimum amount of material that will surround "source #2" in the model LEMIRFL-3.

Prototype Testing

5. We note that ACS has chosen to carry out the prototype testing for the devices in accordance with NUREG-1556, Volume 8, Appendix O. For the vibration test, the English translation indicates that the samples were tested for 15 minutes instead of the 30 minutes listed in Appendix O. Please indicate if this was a typographical error. In addition please confirm, that the vibration cycles that go from 10 Hz to 50 Hz were carried out for 10 cycles. If the vibration cycles were not carried out for 10 cycles, please explain the rationale on why the test as performed is sufficient to demonstrate that it will withstand vibration during normal use and likely accident conditions.
6. The ACS amendment indicates that a Mechanical Shock Test and Firing Test were conducted on the ICSIHG-0.1, ICSIHG-1.1, and the LEMIRFL-3 models; however the tests results were not included in the submission. Please provide copies of the missing test results.

Enclosure