



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
2100 RENAISSANCE BLVD.  
KING OF PRUSSIA, PA 19406-2713**

December 10, 2019

Malgorzata Kouretas, Radiation Safety Officer  
Department of the Army  
Armament Research, Development and Engineering Center (ARDEC)  
Building 355  
Picatinny, NJ 07806-5000

**SUBJECT: DEPARTMENT OF THE ARMY, REQUEST FOR ADDITIONAL INFORMATION,  
MAIL CONTROL NO. 613822**

Dear Ms. Kouretas:

This is in reference to your letter, with the attached Decommissioning Plan (DP), dated, August 6, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML19219A924), requesting to amend NRC License No. SUB-348. Specifically, you requested that the NRC review your revised MARSSIM Final Status Survey and Sampling Work Plan for the decommissioning of the Gorge open detonation pit area at your facility (acknowledged as Decommissioning Plan (DP) in a letter from NRC to Picatinny, dated November 4, 2013 [ADAMS ML13310B861]).

As stated in a letter from NRC to Picatinny dated, November 6, 2019, that acknowledge receipt of your revised DP, the NRC stated that we would perform an expanded acceptance review of your revised plan and expected to be completed by December 6, 2019. During our review, we identified several significant deficiencies that need to be addressed before we can accept the revised plan and amend your license. In order to continue our review, we need the following additional information:

1. When submitting future license amendments, please have the document signed by a management representative rather than the Radiation Safety Officer. The NRC views a letter signed by a management representative as indication that management has reviewed the application and concurs in the statements and representations contained therein.
2. In May 2017, during an NRC inspection and while implementing cleanup of the Open Detonation Pit Interior Area, you encountered a gray gritty material along the western side of the pit that contained elevated levels of Thorium-232 (Th-232). My understanding of the intent of this DP revision is to include Th-232. However, several sections of your plan did not include thorium. Please scrutinize your plan and include thorium in all the pertinent sections of the plan. Some sections noted are: Section 2.2.1 (include the scan MDCs for Th-230 and Th-232); Section 7.6 (include the derived air concentration value that you intend to use for the thorium); Section 8.7 and subsections (include Th DCGLs and MDA); Table 11 (list Th); Section 8.10 (include thorium in relative shift discussion); Section 8.11 (explain how the relative shift changes with the inclusion of thorium); Section 9.2 (add thorium to paragraph); Section 9.9.5 (list the scan MDC for thorium); Section 9.9.7.3 (include thorium in WRS test discussion).

3. Several sections of the DP appear to have been omitted from this revision of the DP. Please scrutinize the entire document and incorporate all the omitted sections. The following list (not inclusive) appear to be omitted: Sections 7.9.2, 8.1.3, 8.1.4, 8.8.2, 8.8.3, 8.8.4, 8.8.6.
4. In Section 2.1.1 of the DP, re-write second paragraph to clarify dates.
5. In Section 2.2.1 of the DP, confirm that RESRAD Version 7.2, used in this DP, is not significantly different from RESRAD Version 6.5 used in the initial DP and does not change the outcome of the values.
6. In Section 2.2.2 of the DP, please explain how you intend to keep the maximum calculated dose to less than 15 millirem/year.
7. In Section 8.7.3.3 of the DP, please show the actual site data that you used to calculate the Th-232 DCGL. Your MDA appears to be greater than the DCGL, explain how you will be able to detect the Th. Also, what is your scan MDA? Thorium appears to have been omitted from Table 11.
8. Please explain why you combined RESRAD Version 6.5 with RESRAD Version 7.2 instead of using RESRAD Version 7.2? Please compare/contrast the versions regarding the radionuclides of concern and validate that there are no significant differences.
9. Table 16 appears to lack data such as the uncertainty for each result. Please include this data.
10. In Section 8.12 of the DP, explain how you calculated the values in the second and third paragraphs.
11. In Table 17 of Section 8.12 of the DP, the data was omitted; please provide the data.
12. In Section 9.11.3 of the PD, explain the second paragraph.
13. In Section 9.11.7 of the DP, explain how you calculated the scan MCD for gross alpha surveys.
14. Section 9.10.8 regarding alpha scan and direct measurement action level for building surfaces appears to be out of place; it is after Section 9.11.7? Please address this inaccuracy.
15. In Section 17.0, review the references and verify them for the most recent revisions.

We will continue our review upon receipt of this information. Please reply to my attention at:

[R1DNMSMail.Resource@nrc.gov](mailto:R1DNMSMail.Resource@nrc.gov)  
Reference – Laurie A. Kauffman  
Mail Control No. 613822

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

An electronic version of the NRC's regulations is available on the NRC Web Site at: [www.nrc.gov](http://www.nrc.gov). Additional information regarding use of radioactive materials may be obtained on the NRC Web Site at: <http://www.nrc.gov/materials/miau/mat-toolkits.html>. This site also provides the link to the toolbox for updated information on the revised regulations for naturally-occurring and accelerator-produced radioactive materials (NARM).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at: <http://www.nrc.gov/reading-rm/adams.html>. Please be aware that you may request that certain portions of your submittal to NRC be withheld from public disclosure as proprietary information. To do this, you must execute an affidavit as specified in 10 CFR 2.390. You must list all portions that you wish to be held proprietary, along with your reasoning as to why that is appropriate. While it is allowable, please refrain from submitting proprietary information in support of a license unless necessary. Keep in mind that all NRC licenses are considered to be in the public domain, and therefore may be viewed by any member of the public who requests to see them.

If you have any questions regarding this request for additional information, please contact me at 610-337-5323 or via electronic mail at [Laurie.Kauffman@nrc.gov](mailto:Laurie.Kauffman@nrc.gov).

Thank you for your cooperation.

Sincerely,



Laurie A. Kauffman, Health Physicist  
Decommissioning, ISFSI, and Reactor HP  
Branch  
Division of Nuclear Materials Safety  
Region I

License No. SUB-348  
Docket No. 04006377  
Mail Control No. 613822

cc: John F. Hedderich, III, Director, ARDEC


DEPARTMENT OF THE ARMY, REQUEST FOR ADDITIONAL INFORMATION, MAIL  
CONTROL NO. 613822  
DATED DECEMBER 10, 2019

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**SUNSI Review Complete: LKauffman**

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NAME	LKauffman 						
DATE	12/10/2019						

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