Lockheed Martin Aeronautics Company
86 South Cobb Drive Marietta, GA 30063

LOCKHEED MARTIN

USNRC Region 1 DNMS
Attn: Mr. Todd Jackson
2100 Renaissance Blvd
King of Prussia, PA 19406

November 30, 2016

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REC RG 1 12 07 '16 AM 06 56

Subject: License Amendment Request

Reference: Lockheed Martin USNRC Operating License No. 10-01425-16/03010638

Dear Sir,

In accordance with our telephone conversation held on November 16th, 2016, I am submitting this letter to request an amendment to our materials license in removing the listed Plutonium-Beryllium (Pu-Be) source. An explanation to justify this request is outlined below including a brief summary regarding the historical origin of this material.

Background

In 2012, the Lockheed Martin-Marietta Radiation Safety Officer (RSO), N.A. Parkinson, discovered an inventory discrepancy involving the Plutonium-Beryllium while performing a comprehensive evaluation of radioactive materials in preparation for renewal of the site's USNRC operating license. In an effort to resolve the error, the RSO reported the license omission to the USNRC and as instructed included the Pu-Be source as a separate entry on the license renewal application submitted in September, 2012. After further consultation with the USNRC, the RSO initiated an investigation to obtain additional information, if possible, on the origin of the Pu-Be source material.

As a result of the above noted investigation, information gathered indicates that during the 1950s and 1960s Lockheed Martin was engaged in a research project to evaluate the feasibility of manufacturing a nuclear powered aircraft. The research effort was conducted at a site location in Dawsonville, Georgia. Per information from Manufacturing & Process Engineering, the research facility began initial closure in 1961 and completed a final lock down in 1963. It is believed that the facility remained deactivated for some time. During this closure period, the Pu-Be source was transferred to the Marietta location.

Documentation regarding this specific source is minimal at best. Since the original transfer of the material from Dawsonville, the Pu-Be source material has remained unused and retained in secured storage.

Amendment Justification

On November 15th, 2016, three representatives from Ecology Services Inc. came to the Marietta site for a disposal project to remove some radioactive materials from storage. A number of these sources had been in storage for a significant amount of time. As part of this project, Ecology Services Inc. was contracted to take the Plutonium-Beryllium source material, encased in paraffin, and melt it down to inspect the source material and verify activity, condition, etc. The task was required at the

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request of OSRP (Off-Site Source Recovery Project) prior to potential transfer of ownership of the source material. The Pu-Be melt down and subsequent inspection was conducted inside the high hazard building (T-779) under the supervision of Mrs. Barbara Foster, Lockheed Martin-Marietta Hazardous Materials Manager. When the paraffin melt down was complete, the project Health Physicist, Mr. Colt Greer, determined that *no Pu-Be source material was evident* and consistent surveys conducted throughout the process indicated a non-detect condition. The conclusion reached by all parties was that the paraffin encased source holders were empty. It is important to note that a corroded metal identification tag was attached to one of the source holders indicating 1.0 curie of Pu-Be. The justification for this tag not being removed prior to material transfer is unknown.

Based on the recent results of the Pu-Be source processing and inspection by Ecology Services Inc., I am requesting removal of this material from our site operating license. Recent events have conclusively indicated that the Pu-Be source material was never transferred to the Marietta location.

If there should be additional questions regarding this matter, please contact me directly at (770)-494-2531. Mr. Colt Greer, Ecology Services health physicist, may be contacted if necessary at 610-750-3860.

Respectfully,

Neale A. Parkinson

Radiation Safety Officer

Lockheed Martin-Marietta

Approved:

Lisa L Bosserman

Lisa L. Bosserman

Environmental, Safety & Health Engineering Manager

NAP/cc: L. Bosserman

NRC FORM 532
(05-2016)

U.S. NUCLEAR REGULATORY COMMISSION

ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE

Name and Address of Applicant and/or Licensee

Lockheed Martin Aeronautical Company
ATTN: Lisa L. Bosserman, Manager,
Environmental, Safety & Health
Engineering Manager
86 South Cobb Drive
Marietta Department RE4M
Marietta, GA 30063-0446

Date
December 15, 2016

License Number(s)
10-01425-16

Mail Control Number(s)
592529

Licensing and/or Technical Reviewer or Branch
Commercial, Industrial, R&D, & Academic Branch (Branch 2)

This is to acknowledge receipt of your: ☑ **Letter and/or** ☐ **Application** **Dated:** 11/30/2016

The initial processing, which included an administrative review, has been performed.

☑ **Amendment** ☐ **Termination** ☐ **New License** ☐ **Renewal**

☑ **There were no administrative omissions identified during our initial review.**

☐ **This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.**

☐ **Your application for a new NRC license did not include your taxpayer identification number. Please complete and submit NRC Form 531, Request for Taxpayer Identification Number, located at the following link: http://www.nrc.gov/reading-rm/doc-collections/forms/nrc531.pdf**

Follow the instructions on the form for submission.

☐ **The following administrative omissions have been identified:**

Your application has been assigned the above listed MAIL CONTROL NUMBER. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

Region I
U. S. Nuclear Regulatory Commission
Division of Nuclear Materials Safety
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713
(610) 337-5260, (610) 337-5313,
(610) 337-5398, or (610) 337-5239