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June 18, 2014

Mr. Mershad A. Shahabidin Radiation Safety Officer Rapiscan Laboratories, Inc. 520 Almanor Ave. Sunnyvale, CA 94085-3533

SUBJECT: APPROVAL OF AMENDMENT REQUEST FOR LICENSE SPECIAL NUCLEAR

MATERIAL-2018 AND AMENDMENT 2 (TECHNICAL ASSIGNMENT CONTROL

NUMBER L33321)

Dear Mr. Shahabidin:

On March 14, 2014, you submitted an amendment request (Agencywide Documents Access Management System [ADAMS] Accession No. ML14084A135) to address differences in the amount of special nuclear material (SNM) in a certain set of test objects than was requested on your initial application. This amendment request was in anticipation of the construction of test objects from mechanical drawings submitted on April 7, 2011 (ML110970046). On April 18, 2014 you submitted a revised amendment (ML14113A031), to include a Criticality Safety Evaluation (CSE) evaluation, in response to our April 2, 2014 non-acceptance (ML14090A167). This revision included a CSE that was lacking on the initial submittal.

On May 30, 2014, we sent a Request for Additional Information (RAI) (ML14135A296) for an explanation why the mass of objects evaluated in the CSE were not consistent or bounding for the mass of objects proposed for licensing. The CSE included the addition of 28 grams of triuranium octoxide canisters which formed the basis of the March 14, 2014 request, but did not address all of the material identified on the license. On June 5, 2014, you submitted a response to the RAI (ML14161A595), explaining that the request in the original application was based on the design of sources to be constructed for use by multiple vendors and were not yet in your possession. The CSE provided with the April 18, 2014, submittal was constructed in conference with those entities in possession of the sources, including the U.S. Department of Energy, Passport Systems, Inc., and Sensor Concepts & Applications, Inc. The sources all contain less SNM than stated on your license, and you have elected to amend your license to match the actual material content, consistent with the CSE provided. We have reviewed the submittal and are enclosing the Safety Evaluation Report (SER) of our review. Based on the review and the commitments made in the amendment request and RAI response, the proposed changes are acceptable. Also enclosed are the amended License No. SNM-2018, both public and nonpublic versions.

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In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the U.S. Nuclear Regulatory Commission's (NRC's) "Rules of Practice and Procedure," this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system ADAMS. ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. Enclosures 1 and 2s will be withheld from the public in accordance with 10 CFR 2.390(d).

Should you have any further questions, please call me at (301) 287-9144, or e-mail at Tyrone.Naquin@nrc.gov.

Sincerely,

/RA/

Tyrone D. Naquin, Project Manager Fuel Manufacturing Branch Division of Fuel Cycle Safety and Safeguards Office of Nuclear Material Safety and Safeguards

Docket No. 70-7021 License No. SNM-2018 Document transmitted contains Security Related Information. When separated from Enclosures 1 and 2, this document is decontrolled.

Enclosures:

- 1. Safety Evaluation Report (Non-public)
- 2. Amendment 2 to Materials License SNM-2018 (Non-public)
- 3. Safety Evaluation Report (Public)
- 4. Amendment 2 to Materials License SNM-2018 (Public)

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/RA/

Tyrone D. Naquin, Project Manager Fuel Manufacturing Branch Division of Fuel Cycle Safety and Safeguards Office of Nuclear Material Safety and Safeguards

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