

June 28, 2016

RE: NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA), REQUEST FOR  
ADDITIONAL INFORMATION CONCERNING APPLICATION FOR RENEWAL OF LICENSE,  
CONTROL NO. 590194

Mr. Wilson,

With regards to your questions below:

Item 1 – except for generally licensed sealed sources such as those in gas chromatographs, we do not have any sources in devices other than those custom made for or by NASA.

Item 2 – Previous amendment submittals are still applicable to the use of Kr-85 and no change is needed.

Item 3 – Previous amendment submittals are still applicable to the use of materials at MSFC and no change is needed.

Sincerely,



Philip O. Brown RSO, LSO  
Health Physicist  
Science, Technology and Engineering Group

**wyle**

MSFC, Building 4249 | Huntsville, AL | Phone: 256.544.5738 | Mobile: 256.436.1106 | Fax: 256.544.1015

**From:** Wilson, Scott [<mailto:Scott.Wilson@nrc.gov>]

**Sent:** Tuesday, June 21, 2016 9:16 AM

**To:** Brown, Philip O. (MSFC-AS10)[WYLE] <[philip.o.brown@nasa.gov](mailto:philip.o.brown@nasa.gov)>

**Cc:** Miller, John <[John.Miller@nrc.gov](mailto:John.Miller@nrc.gov)>

**Subject:** NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, REQUEST FOR ADDITIONAL  
INFORMATION CONCERNING APPLICATION FOR RENEWAL OF LICENSE, CONTROL NO. 590194

License No. 01-06571-10  
Docket No. 03003575  
Control No. 590194

Philip O. Brown  
Radiation Safety Officer  
National Aeronautics and Space Administration (NASA)  
George C. Marshall Space Flight Center  
NASA, MSFC AS10  
Huntsville, AL 35812

**SUBJECT:** NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA), REQUEST  
FOR ADDITIONAL INFORMATION CONCERNING APPLICATION FOR RENEWAL OF  
LICENSE, CONTROL NO. 590194

Dear Mr. Brown:

This is in reference to your license renewal application dated January 27, 2016 (application), regarding Nuclear Regulatory Commission License No. 01-06571-10. Please note that the NRC has published Consolidated Guidance About Materials Licenses, which provide specific guidance to licensee's regarding acceptable methods of completing an application for amendment or renewal of NRC licenses. Specifically, NUREG-1556, Volume 7, "Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope" (NUREG-1556), Appendix C, provides the suggested format for providing the information requested in Items 5 through 11 of the NRC license application form (Form 313). You may find it useful to refer to Appendix C of the NUREG-1556 document when providing the information requested.

In order to continue our review, we need the following additional information:

1. NUREG-1556, Vol. 7, Section 8.6, states that the applicant must specify the purpose of use for each sealed and/or unsealed radionuclide requested. All sealed sources and devices containing licensed material shall be used only for the purpose for which they are designed, and according to manufacturer's (distributor's) instructions and recommendations for use as specified in the SSD Registration Certificate. During our review we found that your application included sealed sources, but did not specify any devices the sealed sources will be used in. **If any of the sealed sources you requested are used in devices, please provide the manufacturer and model numbers of those devices, or the SSD Registration Certificate number for the sealed sources and devices.**
2. In addition to the above deficiency, in your application you referenced the IsoVac Engineering, Inc. Radflo Model Mark V leak testing device. The current license authorizes use of this device, but your license renewal application did not specify that Kr-85 would be used in the device, and did not include the information necessary to complete our review.

If NASA is still using the Kr-85 authorized on the license in the Radiflo Model Mark V leak testing device, please provide:

- a. a description of your program for training of personnel in radiation safety and in equipment operation;
- b. a description of your program for maintenance and repair of the equipment;
- c. what individual(s) will be responsible for consultation on radiation safety and equipment operations;
- d. a description of the engineering controls in place to reduce exposures to individuals resulting from the equipment operations; and
- e. assurance that individuals will not be exposed to excessive concentrations of krypton-85 during operation and maintenance of the equipment.

We noted that the device and the above information was described in your license amendment request letter you provided to our office dated January 14, 2011. However, the submittal may contain information that may no longer apply to your program. **If you choose to tie that submittal to the license, please review the information in the previous submittal and provide a statement that you wish to include the submittal dated January 14, 2011, "Amendment to NASA Marshall Space Flight Center (MSFC) NRC Material License 01-06571-10" as part of this renewal application (Mail Control No. 590194).** Please note that any information, statements, or commitments included in that letter will be tied to the renewed license and NASA will be required to adhere to those statements and commitments. **If that is not correct, you should review the previously submitted information, make any necessary updates, sign/date and resubmit the information in response to this request for additional information.**

3. NUREG-1556, Vol. 7, Section 8.9, requires the applicant to describe the facilities and equipment to be made available at each location where radioactive material will be used (see Appendix K for topics to consider). Include a description of the area(s) assigned for the receipt, storage, security, preparation and measurement of radioactive materials. A diagram should be submitted showing the locations of shielding, the proximity of radiation sources to unrestricted areas, and other items related to radiation safety. When applicable to facilities where radioactive materials may become airborne, the diagrams should contain schematic descriptions of the ventilation systems, with pertinent airflow rates, pressures, filtration equipment, and monitoring systems. Diagrams should be drawn to a specified scale, or dimensions should be indicated. For facilities where it is anticipated that more than one laboratory or room may be used, a generic laboratory or room diagram may be submitted.

This item was discussed in our recent letter requesting additional information. You stated in your response letter dated 5/26/2016, that the information had been submitted in previous submittals. We found submittals dated July 11, 2006, and January 14, 2011; however, the submittals contain additional information that may no longer apply. If we tie those submittals to the license, you will be bound to adhere to the commitments made in those documents; therefore, in order to avoid conflicting or erroneous commitments in the renewed license, **it is necessary that you provide updated information in response to Section 8.9 regarding the items in the above paragraph.**

Current NRC regulations and guidance are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Licensee Toolkits**, see our **toolkit index page**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention at the Region I Office and refer to Mail Control No. 590194. **Your reply must be an originally signed and dated letter. The letter may be scanned and submitted as a pdf document attached to an email; or it may be transmitted by facsimile to (610) 337-5269; or it may be sent by regular mail.**

If you have any questions regarding this deficiency letter, please call me at (610) 337-5136.

Sincerely,  
Scott Wilson  
Health Physicist  
NRC Region I  
2100 Renaissance Blvd, Ste 100  
King of Prussia, PA 19406  
Phone: 610-337-5136  
Fax: 610-337-5269