

Brown, Philip O. (MSFC-AS10)[WYLE]

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

01-06571-10
03003575

Mr. Wilson,

Please see my responses below each question. Please let me know if you need further information.

Thank you



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

wyle

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From: Wilson, Scott [mailto:Scott.Wilson@nrc.gov]
Sent: Monday, May 23, 2016 8:05 AM
To: Brown, Philip O. (MSFC-AS10)[WYLE] <philip.o.brown@nasa.gov>
Cc: Miller, John <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:

REC'D IN LAT 05/26/2016

NMSS/RGNI MATERIALS-002

1. Item 2, Section 8.2, of NUREG-1556, Volume 7, requests the applicant to provide the mailing address where correspondence should be sent. In your application you provided "NASA, MSFC AS10" as part of the mailing address; however, the current license reflects "NASA, MSFC AS10M" as part of the mailing address. Please respond with the correct mailing address (AS10 or AS10M). During a telephone conversation with Scott Wilson of this office on April 27, 2016, you indicated that the mailing address provided with the license application for renewal was the correct address. **You do not need to respond to this item unless our understanding is incorrect.**
2. Item 5, Section 8.5.1, of NUREG-1556, Volume 7, requires that for unsealed materials the applicant must provide whether the material will be free (volatile) or bound (non-volatile) and the requested possession limit for each form. **Please provide whether the materials that are listed as Chemical and/or physical form "Any" on the license are volatile or non-volatile.** Note that for any volatile forms, a description of the engineering and/or administrative controls applicable to those materials should be provided as well. If this information was provided in a previous submittal, you may refer to that submittal in your response.

Materials are non-volatile.

3. Item 5, Section 8.5.1, of NUREG-1556, Volume 7, requires that for sealed sources the applicant identify each radionuclide that will be used and specify the maximum activity per source. During our review we found that your application included sealed sources that are not currently authorized on the license and that some of the sealed sources currently authorized on the license were not included in your application. Please review the list of sealed sources provided in your application and those authorized on the license and clarify the sources you wish to have included with this renewal. For any materials you wish to have removed, please provide disposition of the materials. For example, your current license authorizes sealed sources of Manganese-54. This was not requested in your license renewal application. **Please verify that you no longer request authorization for Manganese-54 sealed sources and indicate disposition of the material.**

We no longer request authorization for Manganese-54 sealed sources. The material was disposed of 8/20/2013 through a licensed radioactive broker, Chase Environmental Group.

4. Your current license authorizes sealed sources and indicates the maximum possession limit for each type of sealed source. In accordance with NRC's licensing policy, we are now required to include the maximum activity of each individual source type in addition to the maximum possession limit on the license. During a telephone conversation with Scott Wilson of this office on April 27, 2016, you indicated that the maximum activity of the individual sources requested is 100 millicuries for the strontium-90 sources listed, 30 millicuries for the americium-241 sources (models AMC.2084, AMN.PE1, etc.) listed, and 10 millicuries for all other sealed sources. **Please acknowledge this is correct.**

This is correct.

5. In your license application cover letter dated January 27, 2016, you indicated several authorized users should be removed from the amended license. You did not indicate that Mr. Gerald Fishman should be removed and Mr. Fishman was not included as a authorized user in your application. During a telephone conversation with Scott Wilson of this office on April 27, 2016, you indicated that Mr. Fishman should be removed from the license. You also indicated during that telephone conversation that Mr. Balanky has left your employ and should not be added to the license. **Please acknowledge this is correct.**

This is correct.

6. Item 6, Section 8.6 of NUREG-1556, Volume 7, states that the applicant should clearly specify if the licensed material will be used in animal studies and/or tracer studies and applicants should also state whether the

studies will be limited to small animals (e.g., rats, mice) or may also include larger animals (e.g., pigs, dogs, horses). Please state if the authorized material is to be used for research on or in animals.

The material will not be used for research on or in animals.

7. Item 11 of your application regarding "Waste Management" states, in part, that all radioactive waste will be disposed of per MPD 1860.2, Radiation Safety Program and MPR 1860.1, MSFC Radiation Safety Procedural Requirements utilizing a licensed radioactive waste broker. You did not include copies of these documents for review. **Please provide copies of MPD 1860.1 and 1860.2.**

See attached.

8. Item 8, Section 8.8 of NUREG-1556, Volume 7, states that the applicant needs to inform ancillary personnel (e.g., clerical, housekeeping, security) whose duties may require them to work in the vicinity of radioactive material (whether escorted or not) about radiation hazards and the appropriate precautions. The licensee should assess each individual's involvement with licensed material and cover each applicable subject appropriately. **Please provide a description of the radiation safety training provided to ancillary workers, including the method and frequency of such training.**

All personnel at MSFC are required to take MSFC SHE (Safety Health and Environment) Program Refresher training annually. This computer based course addresses hazards, including radioactive material, found onsite, warning signs and labels, and personnel responses to these hazards.

9. Item 9, Section 8.9 of NUREG-1556, Volume 7, states, in part, that the applicant should describe the facilities and equipment to be made available at the location where radioactive materials 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 due to volatility or other physical (grinding, scraping, agitating, etc.) or chemical process, the diagrams should contain schematic descriptions of the ventilations systems, with pertinent airflow rates, pressures, filtration equipment, and monitoring systems. 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. **Please submit a description and diagram of facilities in accordance with the guidance in Item 9, Section 8.9 of NUREG-1556, Volume 7.** If this information was provided in a previous submittal, you may refer to that submittal in your response.

Please see previous license renewal and amendment applications.

Also, in accordance with 10 CFR 30.35 (e) (2), at the time of license renewal, each licensee must resubmit the decommissioning funding plan with adjustments as necessary to account for changes in costs and the extent of contamination. Appendix A of NUREG-1757, Volume 3, provides guidance on the Standard Format and Content of Financial Assurance Mechanisms for Decommissioning and you may find it useful in preparing the decommissioning funding plan. Additionally, should the resubmittal include an increase in the costs which exceed the current funding plan, you will need to update and resubmit NASA's Statement of Intent and its Certification of Financial Assurance. **Please resubmit NASA's decommissioning funding plan and, if necessary, Statement of Intent and Certification of Financial Assurance for this license. Your response should be under a separate cover letter as it will be reviewed independently from the license renewal application.**

I will resubmit the required documents separately.

For your convenience, NUREG-1757, Volume 3, may be accessed via NRC's website at:
<http://pbadupws.nrc.gov/docs/ML1204/ML12048A683.pdf>

Current NRC regulations and guidance are included on the NRC's website at 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