

Villar, Sheryl

From: Miller, John
Sent: Friday, August 07, 2015 2:13 PM
To: kim.d.merritt@nasa.gov
Subject: Request for additional Information - Renewal Application Mail Control Number 588235

NASA
License No. 45-01052-21
Docket No. 0301500
Control No. 588235

Mr. Merritt

In order to continue the review of your renewal application for your NRC license to use radioactive materials, we need additional information. If you have any questions, please contact me (610-337-5089).

1. In item 3 of your application dated June 25, 2015, you indicate that radioactive material will be used exclusively at the Langley Research Center in Hampton, Virginia. Condition 10 of your current license also authorizes the use of radioactive material at temporary jobsites where the NRC has jurisdiction. Please confirm that you no longer wish to use radioactive material at temporary jobsites.
2. On page 3 of your application, section 2.3.1.a indicates that the Ionizing Radiation Committee (IRC) meets quarterly per year. However, in section 2.3.2.a (1) of your application, you state that the Chairperson of the IRC will call meetings as required, at least bi-annually. Please confirm that your IRC will meet quarterly consistent with section 2.3.2.a (1) of your application.
3. On page 1 of your application you have provided a list sources currently in your possession.
 - a. You did not request the americium-241 source NDC Systems Model 100T. Was this an oversight or have you transferred/disposed of this source? If you have transferred/disposed the source, please describe its final disposition and submit documentation associated with the transfer.
 - b. The first source listed on page 1 of your application is an Isotope Products Model A3204-1 Fe-55 source. I was not able to locate that source in the NRC Sealed Source and Device registry. However, I did locate an Isotope Products Model XFB Series Fe-55 source that contains an A3204 capsule. I am recommending that this source be authorized on your renewed license as Isotope Products Model XFB Series. Please confirm.
 - c. I was not able to locate the following sources that you have listed in your inventory in the NRC Sealed Source and Device registry.

I

| Radioisotope | Manufacturer | Model |
|----------------|---------------------|---------|
| Fe-55 & Cd-109 | New England Nuclear | NER-636 |
| Sr-90 | Isotope Products | 562-059 |
| Am-241 | Amersham | 4336LV |
| Am-241 | New England Nuclear | 492H |
| Cm-244 | Isotope Products | H072 |
| Cm-244 | Isotope Products | X573 |

Please check that you have provided model numbers as opposed to serial numbers. If you have the registry number for any of these sources or additional information please provide it in your response. As a minimum, please provide the activity of each source.

4. In Section 8 of your application you indicated that training will be provided to individuals working with, or around, activities using ionizing radiation. On page 6-2 of your application, you stated in section 6.2.1(a) that any person likely to receive a radiation dose in excess of 10 percent of the limits will be trained. Please clarify.
5. In your application you indicate that you will be analyzing your own leak test samples. Please provide the following;
 - a. A description of the instrumentation that will be used for analyzing each radionuclide.
 - b. The method used to determine the efficiency-of-counting for each instrument for the radionuclides that will be assayed and show the calculation of the efficiency-of-counting.
 - c. The actual calculation of the minimal detectable activity for each radionuclide to demonstrate the ability to detect 0.005 microcuries.
6. Please describe your instrument calibration procedures. If your instruments will be calibrated by the instrument manufacturer or a person specifically authorized by the U.S. Nuclear Regulatory Commission or an Agreement State for instrument calibration, you only need to specify the name of the firm and the license number that authorizes the firm to perform calibration services, and the calibration frequency. If you intend to calibrate your own instruments, please submit your calibration procedures including calibration frequency. Appendix O of NUREG-1556, Volume 11 contains calibration procedures acceptable to the Commission and may be helpful to you in developing your response.

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v11/>

Please respond in writing with a signed letter. You may submit the signed response document by hard copy, or as a pdf copy attached to an email, or by facsimile to 610-337-5269. Please be sure to include the Control No. 588235 on your response. We would appreciate a response within 30 days in order to expedite review of the license renewal application.

Thank you for your cooperation.

John J. Miller
Health Physicist
Division of Nuclear Materials Safety

Phone: 610-337-5089
Fax: 610-337-5269
E-mail: john.miller@nrc.gov