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From: [Tipton, David A. \(KSC-SIE10\)](#)
To: [Lawyer, Dennis](#)
Cc: [Nickell, Rodney E. \(KSC-KEM-3700\)\[Integrated Mission Support Service\]](#)
Subject: [External_Sender] RE: NASA License Amendment
Date: Monday, August 01, 2016 10:23:13 AM

Mr. Lawyer,

We have reviewed your proposed comments as it pertains to our NRC License conditions. We concur with your proposal with the following information:

1. Make condition 6.C., 7.C., and 8. C., just Cs-137. The manufacturer and model of the source is accurate as written.
2. Add Am-241 as a separate line item with the following information:
Am-241 - Sealed sources Eckert & Ziegler Models EAB-241-47LB and QSA Model AMRB11586 & AMRB14878 - 1 microCurie Total
3. We do not need authorization for Cm-244 at this time. If future Spacecraft payloads contain Cm-244, we will request a license amendment.

Dave Tipton

David A. Tipton, MD
Chair, KSC Radiation Protection Committee

From: Lawyer, Dennis [mailto:Dennis.Lawyer@nrc.gov]
Sent: Monday, August 01, 2016 6:36 AM
To: Tipton, David A. (KSC-SIE10) <david.a.tipton@nasa.gov>
Subject: NASA License Amendment

Dr. Tipton,

We now a new system for writing licenses and when loading conditions and material into our license database, I noticed an oversight from the 2003 renewal.

On line item 6.C. during the license renewal you also requested for Am-241 and Cm-244. Neither of these made it to the license and with the new system I am not able to add them as a single line item, but can add them as a specific line item for that isotope.

The other concern is that the two sealed sources listed under item 7.C. is only for a Cs-137 source and an Am-241 source. The Am-241 source has a maximum activity of 5 uCi and the atomic number is >83 so it is not covered as listed in 6.C. Because we have to list the SS&D (Sealed Source & Device) model numbers, It doesn't allow you to acquire any other sources under this authorization. Thus the authorization should be just Cs-137 and not atomic numbers 3-83.

I propose:

1. We make 6.C., 7.C., and 8.C, just Cs-137 unless you have more manufacturer and model numbers of sources that are listed in the SS&D for a mix of radionuclides..

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2. Add the Am-241 sealed source line item (possession limit needed)
3. Decide if you need a specific authorization for sealed Cm-244 and tell me a possession limit along with the manufacturer and model number.

Please give me a call if you are confused about what I wrote.

Dennis Lawyer
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