



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

March 27, 2018

Daniel R. Knapp, Ph.D.  
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**SUBJECT: LETTER TO KRISTINE L. SVINICKI, CHAIRMAN OF THE U.S. NUCLEAR  
REGULATORY COMMISSION REGARDING NRC DESIGNATION OF AN  
EXEMPT QUANTITY FOR CALIFORNIUM-252**

Dear Dr. Knapp:

I am responding on behalf of the U.S. Nuclear Regulatory Commission (NRC) staff to your letter dated February 22, 2018, addressed to Chairman Kristine Svinicki. In your letter, you requested that the NRC designate an exempt quantity for the radioisotope Californium-252 to facilitate the production and availability of exempt neutron check sources.

On March 19, 2018, a member of my staff contacted you by telephone to discuss your request. In that call, we explained that NRC regulations do not currently allow for exempt quantities of Californium-252 based on the nature of the isotope. At this time, we do not have enough information from the various assessments of Californium-252, such as individual doses during normal life cycle, collective doses during normal life cycle, and individual doses due to accidents or misuse, to designate an exempt quantity.

In our call, we discussed how the public can participate in the rulemaking process. You have an option to submit a petition for rulemaking to request action by the NRC to designate an exempt quantity for the radioisotope Californium-252 to facilitate the production and availability of exempt neutron check sources. The detailed process for rulemaking petition, including how to submit a petition for rulemaking, how the NRC processes a petition for rulemaking and what documents are needed, are listed in NRC's Web site. You can find them at this Web link: <https://www.nrc.gov/about-nrc/regulatory/rulemaking/petition-rule.html>.

In our call, we also informed you of an alternative path for possessing Californium-252 as a neutron check source. Based on our current Registry of Sealed Sources database, 1 millicurie (37 MBq) of Californium-252 made as a calibration source is commercially available for specific license holders from various vendors. However, you would need a specific license to use Californium-252 as a calibration source, or a medical reference. Since the NRC has discontinued its regulatory authority and the State of South Carolina has the responsibility for the regulation and oversight of radioactive material in that state, you may inquire from the State of South Carolina about whether the current specific license issued to the Medical University of South Carolina (MUSC), with which you are associated, would allow possession and use of Californium-252, or if MUSC would need an amendment to the license to add the possession and use of Californium-252.

D. Knapp

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Should you have questions regarding this issue, please contact Shirley Xu at 301-415-7640 or [Shirley.xu@nrc.gov](mailto:Shirley.xu@nrc.gov).

Sincerely,

***/RA/***

Kevin Williams, Acting Director  
Division of Materials Safety, Security, State  
and Tribal Programs  
Office of Nuclear Material Safety  
and Safeguards

D. Knapp

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