

Weaver, Deborah

From: Struckmeyer, Richard
Sent: Wednesday, March 07, 2018 3:57 PM
To: jjmiller@intisoid.com
Subject: Clarification of items in response to RAIs

Mr. Miller,

After reviewing your February 23, 2018, response letter, I have a few items for which it would be helpful to have additional clarification.

RAI 7.

On page 11 of Enclosure 2, item D.3.f. states that the time of counting (in relation to completion of irradiation and transfer to unlicensed persons) “[v]aries with irradiation hours. Stones received from MURR **will be held for decay may held** for 500+ days after the end of irradiation before the counting process begins.” Please clarify this statement.

I should have been more specific as to the clarification I sought; namely the highlighted wording in the above paragraph. Please rewrite this sentence to state a more accurate meaning.

RAI 10.

Worst-case scenario.

(A) In your application, on page 15 of 17, the table shows one-year decay concentrations. In your response to the RAIs, on page 8 of 12, the table shows similar one-year decay concentrations. Please clarify why the values for the nuclides listed in the RAI response differ from those in the application. The reason appears to be due to readjustment of the one-year decay concentrations such that the sum of the ratios will equal 1.0 in each case; is that correct? Also, the reason for having the sum of the ratios equal to 1.0 appears to be because of the assumption that the initial concentrations of each nuclide are equivalent; is that correct? If the answer to both questions is in the affirmative, it may not be necessary to add any details.

(B) In the alternate scenario described in your response to the RAIs on page 8 of 12, the dose due to Mn-54 is the largest of those for which calculations were made. Please explain why the worst-case scenario should not be a dose resulting from a combination of two or more of these nuclides.

RAI 12.

With regard to Procedure OP-TPZ-004, Revision G, “Blue Topaz Counting,” step 7.1.3 and Procedure OP-TPZ-008, Revision B, “TSO Stone Counting,” step 7.1.5, the instructions say to [f]ollow WI-TPZ-006 “Counting Topaz on Gamma Spec” to place the stones in their proper sample holder geometries and count them via gamma spectroscopy to determine the activity of the gamma emitting nuclides. Please describe the sample holder geometries and how they are chosen.

It may have been more appropriate for the last sentence above to say “...and why they are chosen.” Although this may be repeating information provided elsewhere, I do not understand why (or how) a particular geometry is chosen – i.e., what constitutes “proper sample holder geometries.” Please provide additional information, or specify where in your application or RAI response this information is provided.

Thank you,

Richard K. Struckmeyer
Materials Safety Licensing Branch
Division of Materials Safety, Security, State, and Tribal Programs
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
301-415-5477