

## Sepulveda, Lymari

---

**From:** Don Jordan [donjordan@ramservicesinc.com]  
**Sent:** Friday, September 14, 2012 3:12 PM  
**To:** Sepulveda, Lymari  
**Cc:** 'Jerry Wiza'; 'Kathy Lawrenson'; 'James Asbury'; 'Scott Simpson'  
**Subject:** Real time Instruments Allscan gauge dose rates & maximum activity.  
**Attachments:** Survey Sheet.pdf

Good Day Ms Sepulveda,

Today the manufacturer re-measured the neutron and gamma dose rates from a device loaded with 22.97 micrograms (approximately 12.4 mCi) of Cf-252 at 5, 30 and 100 cm. I have attached a PDF version of the survey so that you may warn us of any additional problems you detect. Please note that I strongly suspect that these measurements are in microSieverts .

The original prototype was loaded with 23 micrograms of Cf-252 and, in haste, I used that activity without allowing for manufacturing tolerances. We would like to have some flexibility in the source activity, especially during upgrades to restore original source strength to allow for the capsule manufacturing tolerances. We shall gladly incorporate your recommendations on specifying the maximum activity as 12.4 mCi +/- 20% up to a maximum of 14.5 mCi on the label but we cannot make actual measurements at 14.5 mCi. Please advise on how we should best proceed to meet dose reporting, such as:

1. Report the dose rates as measured with a loading of 12.4 (23 micrograms) of Cf-252;
2. Scale the measured doses to a maximum loading of 14.5 mCi (27 micrograms);

I will convert all dose rates to millirem/hr in our response. (BTW, I had copied the wrong columns from a spreadsheet into our original application.)

Thank you for continuing to assist us in this matter.

Don Jordan

---

**From:** Sepulveda, Lymari [<mailto:Lymari.Sepulveda@nrc.gov>]  
**Sent:** Thursday, September 13, 2012 12:40 PM  
**To:** Don Jordan  
**Cc:** Jankovich, John  
**Subject:** RE: Additional Real time Instruments Allscan gauge drawing

Mr. Jordan,

The drawing submitted is acceptable. Regarding the label, please note that you application indicates a maximum activity of 12.4 mCi. If the label states a max of 14.5, the prototype tests and radiation profiles should also be done for the same maximum activity. Please clearly specify the maximum activity of the device, for example 12.4 +/- 20% up to a maximum activity of 14.5 mCi. Also, please provide the corresponding prototype testing and radiation profiles.

Thanks,  
*Lymari Sepulveda*  
General Engineer  
U.S. Nuclear Regulatory Commission  
FSME/MSSA/LB  
(301)415-5619

---

**From:** Don Jordan [<mailto:donjordan@ramservicesinc.com>]  
**Sent:** Thursday, September 13, 2012 11:13 AM  
**To:** Sepulveda, Lymari  
**Cc:** 'Jerry Wiza'; 'James Asbury'; 'Kathy Lawrenson'; 'Scott Simpson'  
**Subject:** Additional Real time Instruments Allscan gauge drawing

Good Day Ms Sepulveda,

We ask that you consider our proposed responses to some of your recent questions and advise us accordingly. We acknowledge that your advice does not constitute partial final approval and seek only to streamline the process.

***Question 4.2 "Please provide a drawing of the device identifying the components, overall dimensions, and units."***

The manufacturer's drawing, ALL-D-C-0005--RAD.PDF, is attached. Please let me know if you require additional information and I will inform RTI.

Additionally, I made changes to the proposed label based on your concerns and suggestions, and attached a copy of that section of our response.

Don Jordan

RAM Services, Inc.  
510 County Highway V  
Two Rivers, WI 54241

Voice: +1-920-686-3889  
Fax: +1-920-686-3899