

**From:** [Thompson, Aaron](#)  
**To:** [Ullrich, Betsy](#)  
**Subject:** [External\_Sender] Re: New USU RSO  
**Date:** Monday, August 16, 2021 10:00:24 PM

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Please forgive the delays. I am on a temporary duty that requires a lot of my time and attention.

In my previous email I commented on my experience with H3, C14, and P32. I will elaborate on what I can regarding types/forms and quantities.

The C14 and P32 are the easiest. The form of C14 was liquid, sealed, quenched standard vials for LSC. The quantities were in the  $1 \times 10^5$  DPM/vial for C14. I used these at Kansas State University in a detector laboratory for my masters in approximately 2004 and again at the Army Medical Center and School as a teaching aid for health physics technician students between 2012 - 2015. P32 was used in the same detector laboratory at Kansas State University. I have not used P32 since and I do not recall the quantities used. It would not have been very much.

As for H3, I handled a number of Army commodities during my deployment to Kuwait in 2009. These commodities contained liquid or gaseous H3 in quantities ranging from a few millicuries to 10 curies. I was responsible for the packaging and shipping of these items from Kuwait back to the US. I was required to deal with these items even if they were broken/cracked.

Is this helpful?

Very Respectfully,  
MAJ Thompson

On Fri, Aug 13, 2021 at 8:48 AM Ullrich, Betsy  
<Elizabeth.Ullrich@nrc.gov> wrote:

>

> If at all possible, please get me the more specific information requested on August 5, early next week. This action is supposed to be completed by August 22.

>

> Thank you,

> Betsy

>

> Betsy Ullrich, Senior Health Physicist

> USNRC Region I

> 2100 Renaissance Boulevard, Suite 100

> King of Prussia, PA 19406

> 610-337-5040 (office)

> 240-704-4575 (cell)

> Elizabeth.ullrich@nrc.gov

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> -----Original Message-----

> From: Ullrich, Betsy

> Sent: Thursday, August 05, 2021 10:18 AM  
> To: Thompson, Aaron <aaron.thompson@usuhs.edu>; Champine, Brian <brian.champine@usuhs.edu>  
> Subject: RE: New USU RSO  
>  
> Please provide me with a bit more detail about the types/forms and quantities handled, the uses with them, and the years of experience with use and handling the beta emitters, it would be appreciated.  
>  
> Thanks,  
> Betsy  
>  
> -----Original Message-----  
> From: Thompson, Aaron <aaron.thompson@usuhs.edu>  
> Sent: Tuesday, August 03, 2021 4:28 PM  
> To: Ullrich, Betsy <Elizabeth.Ullrich@nrc.gov>; Champine, Brian <brian.champine@usuhs.edu>  
> Subject: [External\_Sender] New USU RSO  
>  
> Hello Ms. Betsy,  
>  
> Brian forwarded your email to me, but sent it to an email address I have been having difficulty accessing until yesterday. I apologize for the delays in providing you the information you requested.  
>  
> I can truly understand your concern. Not many people have experience with low energy beta emitters. I will not claim to have a lot, but I did spend time in Kuwait as the Army Materiel Command RSO and worked with a lot of Army commodities containing tritium. I was responsible for handling, packaging, and shipping of these commodities, many of which were broken.  
>  
> Most of my experience with C14 and P32 are from laboratory experiments in courses during school and use of LSC systems and their standards.  
>  
> How else may I help?  
>  
> Very Respectfully,  
> Aaron M Thompson, PhD  
> MAJ, US Army  
> Assistant Vice President, Health & Safety Radiation Safety Officer Uniformed Services University of the Health Sciences  
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