

**From:** [Lindeblad, Travis W CIV USARMY MEDCOM USAMRICD \(USA\)](#)  
**To:** [Ullrich, Elizabeth](#)  
**Subject:** [External\_Sender] RE: RE: RE: some questions about the building release (UNCLASSIFIED)  
**Date:** Thursday, November 14, 2019 10:51:51 AM  
**Attachments:** [ScansE3100-2C SU1 Class2.xlsx](#)  
[Statics E3100-2C SU1 Class2.xlsx](#)  
[Lab Data Package - SmearsE3100-2C SU1 Class2.pdf](#)  
[SmearsE3100-2C SU1 Class2.xlsx](#)  
[WRSTestE3100-2C SU1 Class2.xlsx](#)

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CLASSIFICATION: UNCLASSIFIED

Hi Betsy,

I got in touch with Ben Casole and he gave me some information as well as pointed me to a couple documents that may explain why Parsons may have chosen to sample the way they did.

1. Na 22 never entered our facility. We had a researcher that was interested in it, but it never was ordered nor was the isotope ever amended to our license for use. Ben is not 100% sure why it ever made it on to a permit in bldg. 3100. Ben believes that it could have been that the researcher was certain it was going to be ordered and Ben preemptively put it on the storage room permit as well as rooms 113A/B on that memo I sent you a week or so ago. Both of those labs 113A/b belonged to the same researcher Dr. Cerasoli who wanted to use the NA22. I reviewed all shipments received back to 1990 and it was never ordered.

2. The last time we had CA45 was February of 2014. A shipment was received containing 1.00 mCi. It was never opened and went straight into our rad waste shipment that went out in NOV of 2018. My best guess is that Parsons took into consideration half-life when they did the MARSSIM in the summer of 2018. But again that is just speculation.

I pushed your questions to them for answer. I think I have attached the 3100-2C scans and smears that you needed.

v/r  
Travis Lindeblad  
Safety, US Army  
SFC USA Ret.  
USAMRICD  
Desk: 410-436-1831  
DSN: 584-1831  
Fax: 410-436-9063

-----Original Message-----

From: Ullrich, Elizabeth [<mailto:Elizabeth.Ullrich@nrc.gov>]  
Sent: Tuesday, November 12, 2019 12:47 PM  
To: Lindeblad, Travis W CIV USARMY MEDCOM USAMRICD (USA) <[travis.w.lindeblad.civ@mail.mil](mailto:travis.w.lindeblad.civ@mail.mil)>  
Subject: [Non-DoD Source] RE: RE: RE: some questions about the building release (UNCLASSIFIED)

a day is optimistic. Do what you need to do. I'm out this Friday, and will be TDY Tuesday through Friday next week.

Betsy

-----Original Message-----

From: Lindeblad, Travis W CIV USARMY MEDCOM USAMRICD (USA) <travis.w.lindeblad.civ@mail.mil>  
Sent: Tuesday, November 12, 2019 11:33 AM  
To: Ullrich, Elizabeth <Elizabeth.Ullrich@nrc.gov>  
Subject: [External\_Sender] RE: RE: some questions about the building release (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Hi Betsy,

You will have to give me a day to respond. I don't have a specific point of contact for Parsons to get those answers. I understand what you are saying, but I don't know why they chose the standards they did.

-----Original Message-----

From: Ullrich, Elizabeth [<mailto:Elizabeth.Ullrich@nrc.gov>]  
Sent: Tuesday, November 12, 2019 10:33 AM  
To: Lindeblad, Travis W CIV USARMY MEDCOM USAMRICD (USA) <travis.w.lindeblad.civ@mail.mil>  
Subject: [Non-DoD Source] RE: RE: some questions about the building release (UNCLASSIFIED)

Travis,

I looked through the attachments you sent from Appendix H, and have some questions from Chapter 4 and the Appendix H data that you may need to discuss with the contractor that performed the survey.

- From chapter 4: I did not see any survey results for the E3100-2C outbuilding used for radwaste storage (section 4.2.1.4) and did not see a Table 4.3 that should have had wipe results

- From Chapter 4: 4.7.1.1 uses tritium and C-14 as the limiting DCGLs. However, Na22 and Ca45 also were used, both of which have lower screening values than C14 (NA22:  $9.54 \text{ E}+3 \text{ dpm/100cm}^2$  [9540 dpm/100cm<sup>2</sup>] ; Ca45:  $2.81 \text{ E}+6 \text{ dpm/100cm}^2$ ; and C14:  $3.67 \text{ E}+6 \text{ dpm/100cm}^2$ ). What is the justification for using the higher limits? How would the energies of Ca45 and Na22 affect the scan surveys? Static surveys? Smear surveys?

- the static survey had two results exceeding the screening value for NA22, sample ST13 at 9570 dpm/100 cm<sup>2</sup> and ST23D at 14,368 dpm/100cm<sup>2</sup>. Where were these samples taken, and how would using the screening values for the more restrictive radionuclides affect the MARSSIM calculations for release?

Thanks,  
Betsy

-----Original Message-----

From: Lindeblad, Travis W CIV USARMY MEDCOM USAMRICD (USA) <travis.w.lindeblad.civ@mail.mil>  
Sent: Friday, November 01, 2019 9:32 AM  
To: Ullrich, Elizabeth <Elizabeth.Ullrich@nrc.gov>  
Subject: [External\_Sender] RE: some questions about the building release (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Hi Betsy,

1. We cannot terminate our license because we still have a building (3081) that we have not vacated where material was permitted to be used. Once we do vacate, a MARSSIM will be performed. Upon concurrence from that survey we will in fact terminate our license all together. We are trying to get rid of bldg. 3100 now because the Garrison wants to take possession of it. We have been out of bldg. 3100 since the end of 2016. I thought our MARSSIM had been sent to you all for review per Parsons back around OCT Of 2018. But only recently did I find out that wasn't the case.

2. I can draft up a memo that outlines years of what and where. I will get that out to you Monday or Tuesday. Everything we used here were Betas with the exception of I125. No alphas were ever used here. Otherwise what

you'll see is S35, P32/33, H3, C14 and CA45 was used in 2015. That is why H3 and C14 were the only isotopes of concern.

3. I have attached all files associated with appendix H from MARSSIM.

-----Original Message-----

From: Ullrich, Elizabeth [<mailto:Elizabeth.Ullrich@nrc.gov>]

Sent: Thursday, October 31, 2019 1:31 PM

To: Lindeblad, Travis W CIV USARMY MEDCOM USAMRICD (USA) <[travis.w.lindeblad.civ@mail.mil](mailto:travis.w.lindeblad.civ@mail.mil)>

Subject: [Non-DoD Source] some questions about the building release

License No. 19-00294-24

Docket No. 030-31110

Mail Control No. 616216

Travis,

I have a few questions about the 9/27/19 letter you submitted, requesting release of some buildings:

1. Your letter says that "...research conducted at this institute will no longer require...radioactive material." It is not clear to me if this statement means you are requesting to terminate the license, or if "institute" refers only to Building E3100 and its outbuildings. If you are requesting termination of the license, that needs to be requested specifically, and in a letter signed by your manager (rather than by the RSO).

2. Your operational history doesn't discuss the types and quantities of radioactive materials that were used in building E3100 or when that use occurred. That information would be useful. Later information indicates that you surveyed only for tritium and carbon-14, but I am unsure if that is all you needed to look for. In particular, a lot of older licenses used alpha emitters from the uranium and thorium series. If these were used in the past, a more sensitive survey may be required.

3. Section 7.7.2.3 refers to detailed calculations in Appendix H. I need to see them, please.

I will be out of the office Friday November 1, and back in Monday and Tuesday next week.

Thanks,

Betsy

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