

From: [Jim F. Herrold](#)
To: [Katanic, Janine](#)
Cc: [Carolyn Brandt](#); [Diana Grant Hulme](#); [Kenneth Warren Sims](#)
Subject: [External_Sender] RE: NRC Inspection/University of Wyoming
Date: Wednesday, December 1, 2021 5:19:35 PM
Attachments: [Action Item Table from NRC inspection 11.docx](#)

Hello Janine,

With the Thanksgiving vacation, the RSC subcommittee addressing the inspection issues has not been able to meet. I am to speak with them tomorrow. We put together the attached action items from the inspection, and I am filling in completion dates as they occur.

Regarding the Am-241 source, I have done these things:

- I borrowed the IdentiFINDER from Wyoming Homeland Security on 11/22/2021. It identified the source as Am-241 (so our records were correct).
- I contacted the person who was RSO at the University of Wyoming from 1973-1976 on 11/18/2021, but he did not have any more information on the source.
- Today I spoke with Becky Coel-Roback of the Off-Site Recovery Program, who said to go ahead and register the source. If they won't take it, they will give us options.
- I have not performed an extensive records research on the source.
- Yes, my research came up with the same information you did regarding the NRC license ((see the spreadsheet). I will notify the NRC to add the source and correct the RMMC address.

[REDACTED] . I'll fill you in more later.

Take care.

Jim F. Herrold, CHP

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From: Katanic, Janine <Janine.Katanic@nrc.gov>
Sent: Wednesday, December 1, 2021 3:56 PM
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Subject: NRC Inspection/University of Wyoming

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Hi Jim,

Do you have any additional information to provide regarding the 14 milliCi Am-241 source?

You are currently on Amendment 48, which was the license renewal. You speculated that perhaps the Am-241 source was previously authorized and got dropped from the NRC license during the renewal. I reviewed Amendment 47 prior to the license renewal. Amendment 47 does not authorize a 14 milliCi Am-241 source. For Am-241 (atomic number 95), Amendment 47 authorized:

- Byproduct material atomic numbers 84 – 96, 10 microCi per radionuclide and 1 milliCi total (therefore not covered here since 14 milliCi)
- Americium- 241 sealed sources, 2 Ci total, for use in portable gauging devices (therefore not covered here since not a sealed source that is part of an approved portable gauge device)
- Americium-241, 0.1 milliCi total, for R&D, teaching/training, calibration (therefore not covered here since 14 milliCi and also for none of those uses)

Have you submitted an amendment request to correct the address of the RMMC? Or to add the Am-241 source to the license?

Have corrective actions been developed or considered to address the items discussed during the inspection, especially with regard to the permits?

Regards,
Janine

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#	Description	Assignments and actions taken	Date
1.0	"Homemade" 20 mCi Am-241 source at the RMMC – Not on current NRC license	(Assigned to RSO)	
1.1.	Contact Wyoming Homeland Security about using their IdentiFINDER.	<ul style="list-style-type: none"> • RSO contacted WHS and picked up the instrument. • RSO performed surveys with IdentiFINDER. The source was identified as Am-241. 	11/22/2021 11/22/2021
1.2.	Perform records research about the source history (RSO)		
1.2.1.	Look at previous NRC license amendments to see if it was originally there but got dropped.	<p>Amendment 42 (expired 7/31/2009):</p> <ul style="list-style-type: none"> • 6E. Americium-241 – Sealed Sources – 2 curies • 9. Authorized Use A-L "Licensed material shall be used only at the licensee's facilities located at the University of Wyoming, Laramie, Wyoming, except as authorized below:" <p>Amendment 43 (expired 12/31/2019)</p> <ul style="list-style-type: none"> • 6E. Americium-241 – Sealed Sources – 2 curies • 9. Authorized use E. "Sealed sources to be used in portable gauging devices for measuring physical properties of material according to its corresponding sealed source and device registration certificate." <p>Amendments 44-47 are the same as amendment 43</p> <p>Amendment 48 (expires 1/31/2035) Am-241 sealed sources separated by gauge model numbers. The overall limit for Am-241 sealed sources was dropped.</p>	11/23/2021
1.2.2.	Look at leak tests and documents archived in the AHC		
1.2.3.	Contact Noel Savignac (former UW RSO 1973-1976)	RSO contacted Savignac via LinkedIn and email (he doesn't remember the source)	11/18/2021
1.3.	Either dispose of the source, or get it listed on UW's NRC license (if possible)		
1.3.1.	Properly label the source (isotope, activity)		
1.3.2.	Get dimensions, weight and photos of source for DOE Off-Site Source Recovery Program (OSRP)		
1.3.3.	Register the source with the DOE Off-Site Source Recovery Program (OSRP)	RSO spoke with Becky Coel-Roback of ORSP, who said to go ahead and register the source. . If they won't take it, they will give us options.	12/1/2021
	Update the records in EHSA		
2.0.	User permit renewal process upgrade	(Assigned to RSC subcommittee: Sims, Brandt, Alexander, Herrold)	
2.1.	Perform a thorough review of the current permits		
2.1.1.	Develop a permit audit form and review process		
2.1.2.	Address any sources/materials around campus that might need improved documentation		

#	Description	Assignments and actions taken	Date
2.1.3.	Dispose of any materials if possible (cost may be an issue)		
2.1.4.	Clean up the electronic records if needed		
2.1.5.	Make sure all documents are duplicated in the principal user files (for NRC review)		
2.2.	Conduct formal reviews and approvals of renewals by RSC		
2.2.1.	Model the renewal processes used by IBC, IACUC and IRB		
2.2.2.	Get example permit and audit forms from other licensees		
2.2.3.	Document renewal approvals in RSC minutes		
2.3.	Include more information and instructions on the permit and renewal application forms		
2.3.1.	What constitutes a need for an amendment? (Changes in locations, protocols, chemical compounds) Maybe check boxes saying yes or no		
2.3.2.	Statement above PI's signature to the effect that all conditions of current permit/amendments will apply		
2.4.	Include more information on the printed permit from EHSA		
2.4.1.	"... as authorized by initial permit and amendments dated..."		
2.4.2.	Authorized uses, compounds, locations		
2.4.3.	Permit amendments and dates		
2.4.4.	Date approved (or not) by RSC		
2.5.	Write SOP and/or revise the Radiation Safety Plan to describe the process		
2.6.	Post radiation permits in labs		
3.	Annual Audit Augmentation	(Assigned to RSC subcommittee: Sims, Brandt, Alexander, Herrold)	
4.	Uranium spike standards in Geology	(Assigned to Ken Sims, RSO)	
4.1.	Separate Sims permit from Chamberlain's (as a test for the new permit process)		

#	Description	Assignments and actions taken	Date
4.2.	Get a good inventory and make corrections to NRC license if we don't need those quantities		
4.3.	Make corrections/changes on EHSA		
4.4.	Print new permits for Sims and Chamberlain		
5.	Other things noted by the NRC	(Assigned to RSO)	
5.1.	Correct the mailing address for the RMMC on the NRC License (requires an amendment)		
5.2.	Post the latest NRC Notices around campus (noted during last NRC inspection, but not finished)	2018 NRC notices are posted in the following locations: Alexander (), Chamberlain (), Eberle (), RMMC (office hallway), Gomelsky (), He (), Herrold (Hill Hall 6 th floor South hallway), Shuman (), Thorsness (), Wall ()	11/24/2021
5.3.	Include columns for location on sealed source check-out log	Sealed source checkout procedures and log have been updated	12/1/2021
5.3.1.	Mail out new form to users at extension offices		
5.4.	Write up an SOP for instrument calibrations (for continuity of operations)		
5.4.1.	Create a training program for the staff that assist the RSO		