



Region I Office  
Division of Nuclear Materials Safety  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 19406-2713  
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## Telephone Conversation Record

Date: June 4, 2021

License No. 52-25125-01

Docket No.(no hyphens): 03031955

Mail Control/Report No. 625757

Licensee Name: L. P. C. & D., Inc.

Participant(s) Name/Title: David Rhoe, Consultant,

Work Telephone No. (787) 245-7248

Business Cellphone No. N/A

NRC Representative Name/Title: Jason vonEhr, Health Physicist

Subject: Concerning the Disposal of Licensed Material

Discussion: Per the licensee's termination request (ADAMS Accession No. ML21138A904), Mr. Jason vonEhr of the NRC contacted Mr. David Rhoe, Consultant to the subject licensee to clarify the serial numbers involved with the termination application and associated serial numbers. The manufacturer had supplied an original receipt letter (see ADAMS Accession No. ML21158A270 for the telephone/email record) which suggested the licensee-provided manufacturer's letter in the above quoted application was edited prior to submission. Mr. Rhoe confirmed that S/N M30069635 was not sent to the manufacturer, as the edited letter suggested, but exchanged with another licensee (Earth Engineers, Inc., NRC license 52-31427-01) for a non-functional device possessed by Earth Engineers, Inc. The exchange involved Earth Engineers, Inc. device S/N 15076239, which corresponded with the device quoted in the manufacturer's original letter. Mr. Rhoe sent a follow-up email (attached) to Mr. vonEhr with three attachments, which included an explanation for the exchange as well as additional leak tests conducted by Mr. Rhoe under his CRMI service license (NRC license 52-25430-01).

Action Required: The "Co-RSO" for the licensee, Ms. Loos, committed to re-submitting the amendment request with the approval and signature of an adequate representative for the licensee.

**SUNSI REVIEW**

**Document Availability:**  Public or  Non-Public

**Document Sensitivity:**

*(select "1" value to the right)*

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SUNSI Review Completed by: JEV1

**From:** [crmidmr@aol.com](mailto:crmidmr@aol.com)  
**To:** [VonEhr, Jason](#)  
**Subject:** [External\_Sender] Chain of events  
**Date:** Sunday, June 6, 2021 6:52:25 PM  
**Attachments:** [Chain of events 6-21.docx](#)  
[Earth Engineering G3-21.pdf](#)  
[Earth Engineering G5-21.pdf](#)

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Please see attached.

If you need anything else, please let me know.

## Chain of events

1. Las Piedres determined to terminate their license and dispose all their nuclear gauges.
2. Earth Engineering needed a nuclear gauge and purchase Sn M330701585 from Las Piedras.
3. During that time, Las Piedras sent me the 3 other gauges for disposal.

Sn M351102935

Sn M320300766

Sn M30069635

4. Earth Engineering discovered that M330701585 was not working properly and asked if it could be fixed. The repair cost would be approximately \$2000 to replace the head assembly on top of the purchasing price they just paid.
5. Since the cost was high, I suggested to see if any of the other 3 nuclear gauges was working. Testing all three, nothing work. I switched parts around for about 4 hours when I finally was able to get one to work properly.
6. I suggested that since the one he purchased was faulty and costly to repair that we could exchange the Sn M30069635 for Sn M15076239. This would have the following benefits:
  - a. Disposal of Sn M15076239, which could no longer be repaired. The disposal cost currently with shipping is \$2000. This would continue to go up. (Companies have a tendency not to dispose old gauges, which sooner or later becomes a regulatory concern.) This gauge was last used in 2019 and taken out of service.
  - b. This would not affect Earth Engineering inventory since one is exchanged for another.
  - c. This would eliminate regulatory concern for storing sources that are no longer being used.
  - d. The original gauge that he purchased could be upgraded in the future once his cash flow increased.
  - e. This would save the \$1000 in FedEx shipping cost to CPN and back plus any repair cost.
7. I provide the disposal acknowledgement to Las Piedras for the disposal form for 3 gauges and sent the 3 gauges to CPN for disposal, which CPN did receive.

## Lessons learned from this experience.

1. Switching parts around and to perform a calibration would take a whole day.
2. The paperwork trail that I did for the first time was a complete disaster.
3. Next time, keep my suggestions to myself and don't be so helpful.

I have attached the 2 leak test record from Earth Engineering showing that the Nuclear Gauge is part of their inventory. If you need additional information, please let me know.

Standard Source: Am-241 Cs-137 NES-139S Cs-137 NES-1 Am-241  
 Standard Activity (uCi): 1.145 0.105 0.105 1.145  
 Date of Standard: 15-Nov-98 9-Sep-88 9-Sep-88 15-Nov-98  
 Instrument: Ludlum  
 Instrument Model Number: 2200  
 Instrument Serial Number: 185815 Beckman Gamma 5500 8044788  
 Date of Leak Test: 5-Mar-21  
 Leak Tested For: Earth Engineers  
 Background (cpm) 166  
 Standard (cpm) 171681 13625

Decay Activity uCi (from decay chart): 1.10477 0.04958

Source ID and Serial Number	Wipe test	Wipe #	page #
Am-241 & Cs-137 SnM15045997		1	1
Am-241 & Cs-137 SnM15076239		2	2
Am-241 & Cs-137 SnM18098458	Disposed	3	3
Am-241 & Cs-137 SnM340707502		4	4
Am-241 & Cs-137 SnM320706679		5	5
Am-241 & Cs-137 Sn 2847		6	6
Am-241 & Cs-137 SnM330701585		7	7
Am-241 & Cs-137 SnM30069635	168	8	8
9	NA	9	9
10	NA	10	10
11	NA	11	11
12	NA	12	12
13	NA	13	13
14	NA	14	14
15	NA	15	15
16	NA	16	16
17	NA	17	17
18	NA	18	18
19	NA	19	19
20	NA	20	20
21	NA	21	21
22	NA	22	22
23	NA	23	23
24	NA	24	24
25	NA	25	25
26	NA	26	26
27	NA	27	27
28	NA	28	28
29	NA	29	29
30	NA	30	30
31	NA	31	31
32	NA	32	32
33	NA	33	33
34	NA	34	34
35	NA	35	35
36	NA	36	36
37	NA	37	37
38	NA	38	38
39	NA	39	39
40	NA	40	40

H-3  
0.044  
3-Oct-00  
Beckman LSC  
6500  
4847

Am-241  
Wipe Test Sample Activity  
168 0.00108  
Eff 7.00 %

Cs-137  
Wipe Test Sample Activity  
168 0.00061  
Eff 12.38 %

This test reveals that 0.005 microcuries or less was present as removable contamination. Should the removable contamination exceed 0.005 microcuries, the source must be removed from use and necessary measures taken according to NRC regulations.

09/09/2021 05:54:10 pm  David Rhoe  
Physicist

Standard Source: Am-241 Cs-137 NES-139S Cs-137 NES-1 Am-241  
 Standard Activity (uCi): 1.145 0.105 0.105 1.145  
 Date of Standard: 15-Nov-98 9-Sep-88 9-Sep-88 15-Nov-98  
 Instrument: Ludlum  
 Instrument Model Number: 2200  
 Instrument Serial Number: 185815 Beckman Gamma 5500 8044788  
 Date of Leak Test: 17-May-21  
 Leak Tested For: Earth Engineers  
 Background (cpm) 167  
 Standard (cpm) 169266 13474

Decay Activity uCi (from decay chart): 1.10432 0.0493

Source ID and Serial Number	Wipe test	Wipe #	page #
Am-241 & Cs-137 SnM15045997	184	1	1
Am-241 & Cs-137 SnM15076239	Disposed	2	2
Am-241 & Cs-137 SnM18098458	Disposed	3	3
Am-241 & Cs-137 SnM340707502	190	4	4
Am-241 & Cs-137 SnM320706679	144	5	5
Am-241 & Cs-137 Sn 2847	148	6	6
Am-241 & Cs-137 SnM330701585	188	7	7
Am-241 & Cs-137 SnM30069635	184	8	8
9	NA	9	9
10	NA	10	10
11	NA	11	11
12	NA	12	12
13	NA	13	13
14	NA	14	14
15	NA	15	15
16	NA	16	16
17	NA	17	17
18	NA	18	18
19	NA	19	19
20	NA	20	20
21	NA	21	21
22	NA	22	22
23	NA	23	23
24	NA	24	24
25	NA	25	25
26	NA	26	26
27	NA	27	27
28	NA	28	28
29	NA	29	29
30	NA	30	30
31	NA	31	31
32	NA	32	32
33	NA	33	33
34	NA	34	34
35	NA	35	35
36	NA	36	36
37	NA	37	37
38	NA	38	38
39	NA	39	39
40	NA	40	40

H-3  
0.044  
3-Oct-00  
Beckman LSC  
6500  
4847

Am-241  
Wipe Test Sample Activity  
190 0.00124  
Eff 6.90 %

Cs-137  
Wipe Test Sample Activity  
190 0.00070  
Eff 12.31 %

This test reveals that 0.005 microcuries or less was present as removable contamination. Should the removable contamination exceed 0.005 microcuries, the source must be removed from use and necessary measures taken according to NRC regulations.

06/09/2021 05:45:59 PM  David Rhoe  
Physicist