



DEPARTMENT OF HEALTH & HUMAN SERVICES

Phone: 870-543-7517 (Voice)
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Food and Drug
Administration
Jefferson Laboratories

National Center for
Toxicological Research
3900 NCTR Road
Jefferson, AR 72079-9502

May 13, 2016

Jason VonEhr
Nuclear Materials Inspector
U.S. Nuclear Regulatory Commission, Region IV
1600 East Lamar Boulevard
Arlington, Texas 76011-4511

Dear Mr. VonEhr and U.S. NRC Region IV,

As requested I am providing a final summary in compliance with 10 CFR 20.2201(b), to close out event # 51160, reported by phone by the National Center for Toxicological Research (NCTR), RSO, Danny Forbush on Thursday, June 18, 2015, located in Jefferson, Arkansas. Mr. Forbush followed up the phone call on Thursday, June 18, and Thursday June 25, 2015, with written correspondence via email providing additional information to Mr. Don Stearns of the NRC. I believe Mr. Forbush thought the follow up on June 25th would serve to meet the NRC requirement of providing a written follow up report. Our apologies for not realizing the emails were not considered sufficient enough to be considered officially written reports. Hopefully this report will meet the NRC's criteria for the submission of a written report and serve to answer and/or clarify any remaining questions you may have concerning the Alnor DewPointer that we were told had been disposed of in our scrap metal recycling.

Description of Licensed Material Involved & Circumstances: ²²⁶Ra a non-leaking, small thin foil-like, solid piece of radioactive metal that was mounted inside an Alnor DewPointer, Model 7000, manufactured and sold in either 1950 or 1951, based on the illegible serial number on the instrument. The serial number is either SN: 549 or SN: 649. According to Johnson's Metal Recyclers the instrument was in a scrap metal container they picked up from NCTR around June 9th, two or three days prior to the discovery on June 12, 2015, when Johnson's Metal Recyclers attempted deliver the scrap metal to Arkansas Steel in Newport. A thorough investigation was conducted, but we were unable to confirm that the instrument ever belonged to NCTR.

To our knowledge this instrument did not belong to us, but prior to being deeded over to the Food and Drug Administration in 1972, our facility once was a portion of the Pine Bluff Arsenal used for the research and development of biological weapons. There is a slim chance that this instrument surfaced after all these years. Attempts were made to contact the RSO and/or the IH at the PBA to no avail.

I have attached the letter from DewPointer Repair, Mr. Nick Karrick confirming they received the instrument, de-sourced, scrapped the instrument, and have taken ownership of the ^{226}Ra source. I am also including copies of the instrument registry log books that Mr. Karrick has in his possession. Please note, I received the registry information today May 13, 2016, and prior to today, I didn't have copies of the instrument registry. So the calculations that were done prior to shipping, were done based on the dates Mr. Karrick provided in June 2015

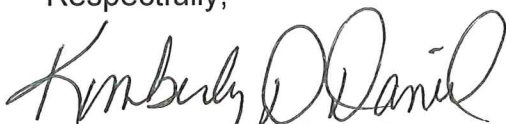
Mr. Karrick's DewPointer Instrument Registry Logbook indicates the DewPointer SN: 549 was sold and shipped to E.I DuPont De Nemours on 06-09-1950, but it looks as though someone has attempted to mark out the customer's name, with no notes indicating why that was done. (Note: In a previous email, Mr. Karrick indicated SN: 549 was sold 10/23/1950, a copy of the registry page is included in this letter.)

For DewPointer SN: 649, Mr. Karrick's DewPointer instrument registry logbook indicates the DewPointer SN: 649 was sold and shipped to Law Instrument Company, Angola, Indiana on 01/15/1950. (Note: In a previous email, Mr. Karrick indicated SN-649 was sold 03/14/1951, a copy of the registry page is included in this letter.)

I performed activity calculations for the source prior to shipping to Mr. Karrick at DewPointer Repair on July 7, 2015, based on the original registry information Mr. Karrick provided. I used the later date of manufacture provided for the reference date (03/14/1951), and assumed the source to be ^{226}Ra . This assumption is based on both the information provided by Mr. Karrick, and the below background readings of the survey meter. Mr. Karrick later confirmed in the letter included with this letter, that this was a correct assumption. The DewPointer Instruction Manual found on-line (and previously emailed to NRC) stated the original activity of ^{226}Ra sources used in the DewPointer instruments of the time was $7\mu\text{Ci}$. As of the shipping date (7/7/2015) the source activity was calculated to be $6.087\mu\text{Ci}$.

Since the source was determined to be ^{226}Ra , and survey meter readings were less than background, it is our opinion that anyone unintentionally coming into contact or near the source would have received a very small dose if any.

Respectfully,

A handwritten signature in black ink, appearing to read "Kimberly D. Daniel". The signature is fluid and cursive, with the first name being the most prominent.

Kimberly D. Daniel, RSO
FDA/NCTR

DPR
DEWPOINTER REPAIR
7 KEMP DRIVE
CHATHAM, IL 62629
USA
217-483-7600

JULY 13 2015

License# IL0239401

FDA/NCTR
ATTN: DANNY FORBUSH
3900 NCTR RD
JEFFERSON, AR 72079

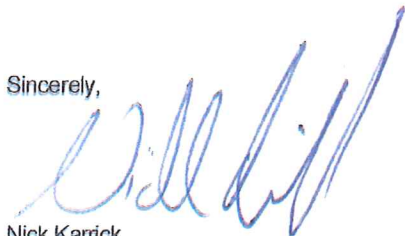
Dear DANNY FORBUSH:

This letter confirms that Alnor Dewpointer instrument; Model 7000 with RA226, s/n 549 has had the following single checked action on 7/13/2015 .

- ☐ Instrument was de-sourced and instrument was returned.
- ☒ Instrument was de-sourced and instrument was scrapped.
- ☐ Radium source was removed, Americium 241 source was installed and instrument was returned.

All Radium and Americium sources become the possession of Dewpointer Repair upon completion of instrument radioactive source removal.

Sincerely,



Nick Karrick
On-site Radiation Safety Officer
Dewpointer Repair/ 7 kemp Dr./ Chatham, IL 62629

REGISTER

DECEMBER 49

DATE	DESCRIPTION	QTY	PRICE	TOTAL
12-7	1 U#3	645	76208	
12-8	1 U#3	646	76352	
12-13	1 L#1	647	76356	
12-15	1 U#3	648	76355	
12-15	1 H#1	166	76475	
12-20	1 H#3	497	76547	
12-21	1 H#3	498	76610	
12-21	1 U#3	649	76579	
12-22	1 H#2	418	76608	
12-23	1 L#1	650	6067	
3-24-56 RETURNED				

DECEMBER 49

DATE	CUSTOMER	DELIVERY	QUANTITY
12-10-49	THIRD SALES - ENG. CO.	ST. LOUIS MO.	436
12-10-49	PINELL BROS. GENERAL ELECTRIC	CHICAGO, ILL. DETROIT, MI.	437
12-15-50	INTERNATIONAL BUSINESS MACH. CORPORATION	1-5-50	438
12-15-50	MI. KAPPELE	PONCA CITY OKLA.	439
12-23-49	CLARK EQUIPMENT CO.	JACKSON MI.	80
12-28-49	LINDBERG		440
12-28-49	LINDBERG (HUNT FILLER BEARING MOUNTING)	12-28-49	441
1-5-50	LAW INSTR. CO.	ANGOLA MO.	442
12-18-49	ACE GULL CORP.	DETROIT MI.	443
1-10-50	M. C. G. L. HAYES MO.	FREEDLAND A.I.	444

JUNE 50

DATE ENTERED	DESCRIPTION	SEA #	ORDER #
6-2-50	1 H#2	549	79698
6-7-50	1 U#3	550	79801
6-12-50	1 H#3	551	79839
6-13-50	1 L#1	552	79899
"	1 H#1	553	"
"	1 H#2	554	79862
"	1 H#1	555	79924
6-14	1 H#1	556	79922
6-15	1 H#2	557	79942
6-20	1 H#2	558	80019
6-22	1 U#3	559	80081
6-27	1 H#3	560	80155
6-28	1 L#2	561	80172

13 D.P.

STOMERS #	CUSTOMER	DELIVERY PROMISE	SHIPPED
243001	E. DU PONT DE NEMOURS WILMINGTON DEL	6-9-50	6-9-50 488
77680	LINDBERG	6-15-50	6-15-50 489
44117	U.S. WEATHER BUREAU WASHINGTON D.C.	6-22-50	6-22-50 490
71850	WESTERN ELECT. INDIANAPOLIS IND.	6-27-50	6-27-50 491
"	"	6-27-50	6-27-50 492
77774	LINDBERG	6-27-50	6-27-50 493
29913	JOHN DEERE PLOW MOLINE ILL	6-28-50	6-28-50 494
2585	LEWIN MATHES CO ST. LOUIS MO	6-28-50	6-28-50 495
78036	LINDBERG	6-28-50	6-28-50 496
78339	LINDBERG (OLIVER CORP. CHARLES CITY)	6-30-50	6-30-50 497
590195	INLAND STEEL CO EAST CHICAGO	6-30-50	6-30-50 498
1676	GENERAL MOTORS INSTITUTE FLINT MICH	7-21-50	7-21-50 499
54287	SUPERIOR TUBE CO NORRISTOWN PA	7-21-50	7-21-50 500