

Lawyer, Dennis

From: gfenton <gfenton@fentonartglass.com>
Sent: Tuesday, October 04, 2016 12:03 PM
To: Lawyer, Dennis
Subject: [External_Sender] RE: Fenton Art Glass Company, Control 589275
Attachments: M2929-126126_Cal Cert_due 051317.pdf

SUB-491
04003149

Dennis,
Attached is the proper calibration certificate.
Talk with you Thursday.
George

From: Lawyer, Dennis [mailto:Dennis.Lawyer@nrc.gov]
Sent: Tuesday, October 4, 2016 9:23 AM
To: gfenton <gfenton@fentonartglass.com>
Subject: Fenton Art Glass Company, Control 589275

Mr. Fenton,

I have completed reviewing over your letter dated September 6, 2016. The calibration certificate for Instrument model 2929 serial number 126126 and its associated detector model 43-10-1, serial number PR132238 appears to be out of calibration. The date of calibration on the certificate submitted was April 22, 2015, good till April 22, 2016. However the date of the survey appears to be in July 2016. Please submit the current calibration records for instruments model 2929 serial number 126126 and detector model 43-10-1, serial number PR132238 for the time of the survey.

As shown in your final status survey, furnace 8 has detectable radioactivity and thus I may not terminate your license at this time.

Dennis Lawyer
U.S. NRC Region 1
Health Physicist
610-337-5366



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REC'D IN LAT 10/04/2016

589275
NMSS/RGNI MATERIALS-002



GRIFFIN INSTRUMENTS



CALIBRATION CERTIFICATE FOR

2929

SERIAL#

126126

Owner: PLEXUS-IEM

DATE: 05/13/16

LOCATION:

Griffin Inst

TECH: E.M. Glenn

DATE LAST CAL EXPIRES:

04/22/16

Reason For Calibration:

Due For Calibration

Repair (See Remarks)

CABLE LENGTH: 39"

Other (See Remarks)

Due and Repair (See Remarks)

NIST TRACEABLE EQUIPMENT USED DURING CALIBRATION

MODEL: M-500

SERIAL #: 114512

CAL. DUE: 10/19/16

MODEL:

SERIAL #:

CAL DUE:

Condition: Sat Unsat

AF Mechanical Zero: 0

AL Mechanical Zero: 0

Scaler Function Check	As Found	As Left		
Beta Channel Window (4-50 mV):	4.48	A.F.		
Alpha Channel Window (175 mV, 120 for 3030):	175	A.F.		
Alpha Counts w/Pulser @ 10,000 CPM:	9,984	A.F.	% Error:	0.2%
Beta Counts w/Pulser @ 10,000 CPM:	9,988	A.F.	% Error:	0.1%

HIGH VOLTAGE POWER SUPPLY CAL. (2929 only)

1 KV Reading (R-5 on HV Board):

1

A.F.

Max HV (1500 V +):

Sat Unsat

REMARKS:

Does Instrument Meet Final Acceptance Criteria?:

Yes No

Calibration Sticker Attached?:

Yes No

Date Instrument is Due For Next Calibration:

05/13/17

INSTRUMENT MARRIED WITH

43-10-1

#PR132238

Performed/Reviewed by:

E.M. Glenn *EG*

Date: 5/13/2016

Entered by: *EG* Initials





GRIFFIN INSTRUMENTS



CALIBRATION CERTIFICATE FOR 43-10-1 PROBE # PR132238

Owner: PLEXUS-IEM

DATE: 05/13/16 LOCATION: Griffin Inst
TECH: E.M. Glenn DATE LAST CAL EXPIRES: 04/22/16

REASON FOR CALIBRATION:

- Due For Calibration (checked)
Repair (See Remarks)
Other (See Remarks)
Due and Repair

CABLE LENGTH: 39" INPUT SENSITIVITY: DUAL

NIST TRACEABLE EQUIPMENT AND STANDARDS USED DURING CALIBRATION

MODEL: 2929 SERIAL #: 126126 CAL. DUE: 05/13/17

NIST TRACEABLE SOURCES USED

Table with 5 columns: Source Number, Isotope, 4 pi Activity, Assay Date, 2 pi Activity. Rows include 00TC470-0654 (Tc99 SS), 94TH470-1593 (Th230), 2696-00 (Pu239), 2697-00 (Sr90), PX-726 (C14).

Efficiencies from last cal.:

Condition: Sat (checked) Unsat
Pu: [] Th: 29.82% Sr: 35.48%
Tc ss: 21.57% C14: [] Tc Ni: []

As Found (AF) Efficiencies:

Table with 5 main columns: HV / Vernier, Tc-99 Source Response Nickel (CPM), Pu-239 Source Response (CPM), Background (CPM), Tc-99 Source Response Stainless Steel (CPM). Each has sub-columns for A ch., B ch., and Net Eff.

Table with 2 columns: Net A to B Xtalk: <10%, B to A Xtalk: <1%. Values: 3.4%, <1%.

Table with 6 columns: Pu239, Tc99 Ni, Tc99 ss, Th-230, Sr90, C-14. Rows for AF CPM, AF 4 pi eff, AF 2 pi eff.

Is as found efficiency within 20% of the efficiency from the last cal? Yes (checked) No (See Remarks)

Note: If the as found data is within 10% of the last calibration and the B-A Xtalk is <1% and the A-B Xtalk is <10%, then the technician may N/A the plateau section and go directly to remarks.





GRIFFIN INSTRUMENTS



PROBE #: PR132238

Date: 05/13/16

PLATEAU AND SET POINT DATA

HV / Vernier:	Tc-99 Source Response SS (CPM):			Pu-239 Source Response (CPM):			Background (CPM):		Net A to B Xtalk: <10%	B to A Xtalk: <1%
	A ch.	B ch.	Net Eff.	A ch.	B ch.	Net Eff.	A ch.	B ch.		
625 / 2.54	0	2755	15.7%	6317	279	34.1%	0	43	3.6%	<1%
650 / 2.65	0	3152	18.0%	6346	288	34.3%	0	46	3.7%	<1%
675 / 2.75	0	3636	20.7%	6573	297	35.5%	0	48	3.6%	<1%
700 / 2.85	0	3872	22.0%	6744	280	36.5%	0	59	3.2%	<1%
725 / 2.96	1	4216	24.1%	6724	336	36.3%	0	52	4.1%	<1%
750 / 3.07							2	87		

HV / Vernier	Alpha / Beta Bkg (cpm)		54		C-14	Sr-90
	Pu-239	Tc-99 Ni	Tc-99 SS	Th-230		
700 / 2.85	CPM: 6788		3911	4735	5134	2928
	<i>4 pi AL Efficiencies:</i> 36.68%		<i>22.29%</i>	<i>28.39%</i>	<i>10.41%</i>	<i>34.77%</i>
	<i>2 pi AL Efficiencies:</i> 72.42%		<i>35.71%</i>	<i>61.70%</i>	<i>27.22%</i>	<i>49.73%</i>

REMARKS:

Does Instrument Meet Final Acceptance Criteria?: Yes No

Calibration Sticker Attached?: Yes No

Date Instrument is Due For Next Calibration: 05/13/17

INSTRUMENT MARRIED WITH 2929 #126126

Performed/Reviewed by:

E.M. Glenn

Date: 5/13/2016

Entered by: *EG* Initials

2 pi efficiencies denoted in italics.

Calibrations performed to ANSI N323A-1997 standards.

