

1998
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
ST. LUCIE PLANT - UNITS 1 & 2

ATTACHMENT C

RESULTS FROM THE INTERLABORATORY
COMPARISON PROGRAM 1998

9906150167 990607
PDR ADOCK 05000335
R PDR

FLORIDA DEPT. OF HEALTH - EPA INTERLABORATORY CROSS-CHECK PROGRAM DATA

January through June, 1998

Media	Nuclide	Collection			EPA	Units	Normal.	Mean of	N.D.K.	Action
		Mon	Day	Yr	Known		Range	Analyses		Level
WATER	Alpha	01	30	98	30.5	pCi/L	0.241	9.77	-4.73	1
WATER	Beta	01	30	98	3.9	pCi/L	0.071	7.30	1.18	
WATER	H-3	03	13	98	2155	pCi/L	0.144	2066.33	-0.44	
WATER	I-131	02	06	98	104.9	pCi/L	0.146	103.97	-0.15	
WATER	Sr-89	01	16	98	8	pCi/L	0.000	6.00	-0.69	
WATER	Sr-90	01	16	98	32	pCi/L	0.118	27.33	-1.62	
WATER	Co-60	06	05	98	12	pCi/L	0.118	12.33	0.12	
WATER	Zn-65	06	05	98	104	pCi/L	0.295	112.00	1.39	
WATER	Cs-134	06	05	98	31	pCi/L	0.000	29.00	-0.69	
WATER	Cs-137	06	05	98	35	pCi/L	0.118	37.67	0.92	
WATER	Ba-133	06	05	98	40	pCi/L	0.354	37.00	-1.04	

NOTES:

Normal.: Normalized range: As defined in "Environmental Radioactivity Laboratory Intercomparison Studies Program Fiscal Year 1981 - 1982", Environmental Monitoring Systems Laboratory, U. S. Environmental Protection Agency, P. O. Box 93478, Las Vegas, Nevada, 89193-3478. EPA-600/4-81-004, February, 1981.

N.D.K.: Normalized deviation of the mean from the known value, as defined in EPA-600/4-81-004.

NDP: No data provided. No data was provided to EPA for inclusion in their report.

NA: Not available. Report containing this data has not yet been received from EPA, Las Vegas.

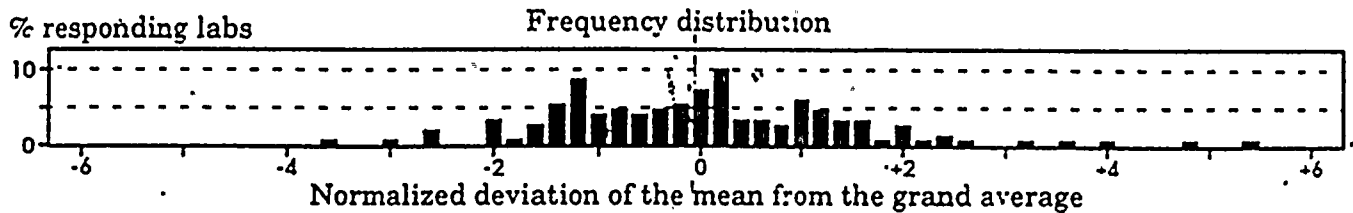
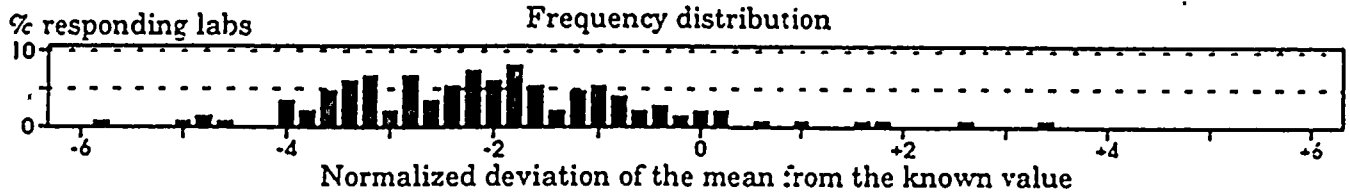
ACTION LEVEL:

(1) Cause: No cause for the low result can be found. However, the graph of % responding labs vs. normalized deviation of the mean from the known value given on page 9 of EPA's report for this cross-check (copy attached) shows most laboratories reported a value lower than the known value. Furthermore, the second graph on page 9, % responding labs vs. normalized deviation of the mean from the grand average, shows that the laboratories agree fairly well with each other.
Action: None at this time.

Gross Alpha

Data sorted by Laboratory Average

Average	Tag	Lab	Average	Tag	Lab	Average	Tag	Lab
23.23		JM	26.00		DO	28.60		QP
23.37		JS	26.10		O	28.67		K
23.63		RZ	26.10		GQ	28.77		RB
23.73		WR	26.23		DB	29.67		KT
23.77		AZ	26.27		OB	29.77		EB
23.83		BH	26.33		BC	30.33		D*
24.37		SD	26.50		RD	30.47		BL
24.73		XM	26.77		UP	30.53		S
24.77		T	27.03		U	31.17		CA
24.87		BA	27.03		QZ	31.57		J
25.07		AW	27.27		C	31.60		XQ
25.37		JY	27.33		RR	33.00		CJ
25.37		D	27.40		WP	35.23		AU
25.53		SL	27.53		XL	37.17		XF
25.60		BM	27.90		QW	38.73		XN
25.67		BS	28.20		VH	42.30		WN
25.80		QU	28.57		AL	45.00	x	SG



• ≡ No data submitted

TAG SYMBOLS

∩ ≡ Above control limit

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DOE-QAP 48 RESULTS

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation
Matrix: AI Air Filter Bq/filter							
1	GROSS BETA	2.300	0.040	1.960	0.300	1.173	A
1	MN54	5.950	0.080	5.44	0.485	1.094	A
1	CO57	10.180	0.040	11.110	0.846	0.916	A
1	CO60	8.960	0.070	9.090	0.732	0.986	A
1	SB125	11.100	0.300	12.160	1.151	0.913	A
1	CS134	17.100	0.100	19.740	1.380	0.866	A
1	CS137	12.700	0.100	11.860	0.957	1.071	A
1	CE144	7.700	0.100	8.210	0.796	0.938	A
Matrix: WA Water Bq/l							
	H3	240.100	4.800	218.300	6.505	1.100	A
1	MN54	63.500	0.600	57.000	1.900	1.114	A
1	CO60	15.000	0.300	13.600	1.200	1.103	A
1	CS137	51.500	0.600	46.000	1.700	1.120	A
Matrix: VE Vegetation Bq/kg							
1	K40	757.000	10.000	707.500	24.987	1.070	A
1	CO60	11.100	0.500	10.575	0.206	1.050	A
1	CS137	186.000	1.000	181.500	7.141	1.025	A
Matrix: SO Soil Bq/kg							
1	K40	313.000	6.000	313.500	10.150	0.998	A
1	CS137	325.000	1.000	329.500	9.260	0.986	A

Evaluation: A = Acceptable, W = Acceptable with Warning, N = Not Acceptable



11-11-11

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DOE-QAP 49 RESULTS

No. Test	Radionuclide	Reported Value	Reported Error	EML Value	EML Error	Reported EML	Evaluation
Matrix: AI Air Filter Bq/filter							
1	GROSS BETA	2.080	0.070	2.160	0.070	0.963	A
1	MN54	5.250	0.050	4.920	0.400	1.067	A
1	CO60	8.630	0.050	9.160	0.580	0.942	A
1	SB125	7.300	0.200	8.890	0.550	0.821	W
1	CS137	23.830	0.100	22.470	1.030	1.061	A
Matrix: WA Water Bq/l							
	H3	84.080	3.100	76.200	2.900	1.103	A
1	MN54	36.400	0.500	32.400	1.400	1.123	A
1	CO60	51.300	0.400	49.400	1.200	1.038	A
1	NI63	95.230	0.670	95.700	0.900	0.995	A
1	CS137	52.700	0.600	50.000	1.700	1.054	A
Matrix: VE Vegetation Bq/kg							
1	K40	499.000	9.000	460.000	20.000	1.085	A
1	CO60	20.200	0.500	20.000	1.000	1.010	A
1	CS137	402.000	2.000	390.000	20.000	1.031	A
Matrix: SO Soil Bq/kg							
1	K40	332.00	6.000	314.000	13.000	1.057	A
1	CS137	945.000	2.000	954.000	38.000	0.991	A

Evaluation: A = Acceptable, W = Acceptable with Warning, N = Not Acceptable

