



RECEIVED
REGION V

1990 AUG 21 PM 1:16

August 29, 1990
696-1614

Mr. John B. Martin
Regional Administrator
Region V
U.S. Nuclear Regulatory Commission
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596

Subject: Submittal of Semiannual Effluent Report (2 copies)

Reference: GAC letter 696-677 dated 2/27/76, SNM-696,
Docket 70-734

Dear Mr. Martin:

In accordance with 10 CFR 70.59, we are transmitting the semi-annual effluent report required for the period January 1, 1990 through June 30, 1990. By copy of this letter, six (6) copies of the report are being forwarded to the Director, Office of Inspection and Enforcement, NRC, and one (1) copy is being sent to the State of California, Department of Radiological Health, Sacramento.

Table I lists data on the radiological gaseous and particulate effluent released to unrestricted areas from our facilities handling special nuclear material. The release point descriptions are keyed to the facility names whose relative locations are shown on Figure 1, a plan view of the site. Table II shows the radiological liquid effluent which is released into a 100 million gallon/day regional sewerage treatment plant. Table III contains the non-radiological effluent data taken from our air particulate and HCl sampling points.

The dispersion meteorology of the site was discussed in our first effluent report referenced above. Certain Table I data used in conjunction with the above referenced meteorology provide the basis for deriving radiological effluent concentrations at the site boundary and nearby vicinity.

00000

IE-17
11

9010020071 900630
PDR ADDCK 07000734
C PNU

Mr. John B. Martin
U.S. NRC

August 29, 1990
Page 2

Attachments A and B provide backup information. Attachment A provides detailed information concerning liquid releases, TRIGA Ar-41 releases and Kr-85 and Xe-133 releases. Attachment B provides stack sample results averaged over this reporting period.

We remain hopeful the information provided is satisfactory to meet the requirements for the now recurrent submission.

Very truly yours,

Keith E. Asmussen

Keith E. Asmussen, Manager
Licensing, Safety and
Nuclear Compliance

KEA/shs

Attachments:

Table I - Gas & Particulate Effluents - 1/1/90-6/30/90
Table II - Liquid Effluents - 1/1/90-6/30/90
Table III - Non-Radiological Effluent Data - 1/1/90-6/30/90
Attachment A
Attachment B

cc: Director (6 copies)
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. E. Bailey, Chief (1 copy)
Health & Welfare Agency
Department of Health
State of California
Radioactive Materials Licensing
714-744 P Street
Sacramento, CA 95814

Mr. William Watson
State of California
Department of Health
Environmental Radiation Management Unit
1449 West Temple Street, Room 222
Los Angeles, CA 90026

August 29, 1990

TABLE I
GAS & PARTICULATE EFFLUENTS
JANUARY 1, 1990 THROUGH JUNE 30, 1990

<u>Release Point</u>	<u>Measurement Basis*</u>	<u>Effluent</u>	<u>Emission (Curies)</u>
HTGR Fuel Fabrication Facility (SV-A)	(1) (3) (4)	U ²³⁵ (93% enriched), thorium-232 & daughters	6.83 x 10 ⁻⁶
SV-B	(1) (3) (4)	U ²³⁵ (93% enriched), depleted uranium, thorium-232 & daughters	3.31 x 10 ⁻⁶
TRIGA Fuel Fab Facility	(1) (3) (4)	U ²³⁵	1.654 x 10 ⁻⁶
Hot Cell	(1) (3) (4)	Mixed fission products	2.61 x 10 ⁻⁵
	(1) (3) (4)	I-131	1.20 x 10 ⁻⁶
	(2)	H-3	0
Experimental Area Building (EA-1) (Y-90 Production Facility)	(2)	H-3	2.0 x 10 ⁻⁴
	(2)	C-14	1 x 10 ⁻⁵
	(2)	Mixed fission products	1 x 10 ⁻⁵
	(2)	Mixed activation products	1 x 10 ⁻⁵
	(2)	U ²³⁵	4.0 x 10 ⁻⁸
	(2)	Th-232	2 x 10 ⁻⁸
Experimental Area Building - EA-1 Bunker	(1)	Sr-90/Y-90	3.74 x 10 ⁻⁵
TRIGA Reactor Facility	(1)	Ar-41 Mark I & Mark F	1.649
	(3) (4)	Mixed fission products (Mark F)	1.16 x 10 ⁻⁶

August 29, 1990

TABLE II
LIQUID EFFLUENTS
JANUARY 1, 1990 THROUGH JUNE 30, 1990

<u>Release Point</u>	<u>Effluent Radionuclides</u>	<u>Emission (Curies)</u>
HTGR Fuel Fabrication Facility (Building 37, Sorrento Valley)	U ²³⁵ , thorium	0
Main Site	Radionuclides Z=3-103	4.56032 x 10 ⁻³
	TOTAL	4.593 x 10⁻³

ATTACHMENT A

WOR 79
LRQ 8/28/90

SEMIANNUAL EFFLUENT REPORT INFORMATION
JANUARY 1, 1990 THROUGH JUNE 30, 1990

- 1) Liquid Releases
- 2) TRIGA Ar-41 Releases
- 3) Sorrento Valley Xe-133 and Kr-85 Releases

1) 1990 (FIRST HALF) LIQUID RELEASES — SUMMARY BY MONTH

MONTH	MAIN SITE		SORRENTO VALLEY	
	# OF GALLONS	MICROCURIES	# OF GALLONS	MICROCURIES
JANUARY 1990	450	608.70	0	0
FEBRUARY 1990	988	1374.51	0	0
MARCH 1990	700	2565.36	0	0
APRIL 1990	0	0	0	0
MAY 1990	350	44.36	0	0
JUNE 1990	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTALS	2488	4592.93	0	0

Average Daily Flow Rates (Average Gallons/Day)

	Main Site	Sorrento Valley
JANUARY 1990	55,153	300
FEBRUARY 1990	39,080	185
MARCH 1990	46,416	166
APRIL 1990	53,785	769
MAY 1990	48,206	433
JUNE 1990	45,962	740

Note:

All liquids were filtered before release. The quantities and concentrations met the limits specified in 10CFR20.303 (a), (b) (1), and (c). In addition, all releases met the State of California limits specified in section 30287 of the California Radiation Control Regulations. NONE OF THE RELEASES EXCEEDED 25% OF THE APPLICABLE MAXIMUM PERMISSIBLE LIMIT (MPC).

Each release is described below. Note that only the primary nuclide(s) is listed. When a mixture of various radionuclides was present, the limiting value was calculated as described in Appendix B "notes (1) through (5)". Each calculation is maintained in GA's "Liquid Releases" notebook. THERE WERE NO RELEASES FROM THE SORRENTO VALLEY SITE DURING THIS PERIOD. NONE OF THE RELEASES EXCEEDED 25% OF THE APPLICABLE MAXIMUM PERMISSIBLE LIMIT (MPC).

JANUARY 1990

MAIN SITE RELEASES - AS FOLLOWS:

<u>ID #</u>	<u>Original Location</u>	<u>Primary Nuclides</u>	<u>Date Released</u>	<u># of Gal</u>	<u>Concentration (microcuries per ml)</u>	<u>MICROCURIES</u>
WY-133	EA-1	Sr-90	1/4/90	225	3.5738 E-04	304.35
			1/5/90	225	3.5738 E-04	304.35
			TOTAL	450		608.70

FEBRUARY 1990

MAIN SITE RELEASES - AS FOLLOWS:

Main Site

<u>ID #</u>	<u>Original Location</u>	<u>Primary Nuclides</u>	<u>Date Released</u>	<u># of Gal</u>	<u>Concentration (microcuries per ml)</u>	<u>MICROCURIES</u>
WY-134		CS-137 U-238	2/6/90	38P	7.10% E-05	104.36
WY-135	SVA, HC	CS-137 U, TH	2/20/90	125	3.613 E-04	170.94
			2/21/90	200	"	273.50
			2/22/90	125	"	170.94
			2/23/90	50	"	68.37
WY-136		U, TH	2/26/90	50	1.5493 E-03	293.20
			2/28/90	50	"	293.30
TOTALS				988		1374.51

MARCH 1990

MAIN SITE RELEASES - AS FOLLOWS:

<u>ID #</u>	<u>Original Location</u>	<u>Primary Nuclides</u>	<u>Date Released</u>	<u># of Gal</u>	<u>Concentration (microcuries per ml)</u>	<u>MICROCURIES</u>
WY-136	MIXED	U-238 Ra	3-1	50	1.5493 E-03	293.20
			3-2	50	"	293.20
			3-5	50	"	293.20
			3-6	50	"	293.20
			3-7	50	"	293.20
			3-8	50	"	293.20
			TOTAL	300		1759.20
W'-137	SVA/TFF	TH, U	3-12	50	5.325 E-04	100.77
			3-13	50	"	100.77
			3-15	50	"	100.77
			3-16	50	"	100.77
			3-20	50	"	100.77
			3-22	50	"	100.77
			3-23	50	"	100.77
			3-26	50	"	100.77
			TOTAL	400		806.16
TOTALS		700		2565.36		

APRIL 1990

There were no releases during APRIL 1990.

MAY 1990.

MAIN SITE RELEASES - AS FOLLOWS:

<u>ID #</u>	<u>Original Location</u>	<u>Primary Nuclides</u>	<u>Date Released</u>	<u># of Gal</u>	<u>Concentration (microcuries per ml)</u>	<u>MICROCURIES</u>
WY-138	Fume Scrubber	U/Th	5-3-90	350	3.3484E-05	44.36

JUNE 1990

There were no liquid releases during June 1990.

Summary of Liquid Releases

First Six Months 2488 gallons 4592.93 microcuries

2) TRICA Ar-41 Releases

First Half of 1989 -- KW or MW hours operation

<u>Month</u>	<u>Mark I</u> <u>(KW-hours)</u>	<u>Mark F</u> <u>(MW-hours)</u>
January	2376	1,055.180
February	3378	914.728
March	1559	430.285
April	4288	872.666
May	3729	780.969
June	1843	841.251
TOTALS		

Conversion Factors Used:

3.279 E-02 microcuries/count (stack monitor net counts)
7.167 E-05 Curies/MW-hours (if net counts are unavailable)

<u>MONTH</u>	<u>CURIES</u>	
	<u>MARK I CALCULATED</u>	<u>MARK F MEASURED</u>
January	1.70 E-04	0.394
February	2.42 E-04	0.309
March	1.12 E-04	0.133
April	3.07 E-04	0.263
May	2.67 E-04	0.288
June	1.53 E-04	0.201
TOTALS	12.3 E-04	1.648

TOTAL ESTIMATED (Measured/Calculated) Ar-41 released from the
MARK I & MARK F = 1.649 Ci REPORTED IN SEMI-ANNUAL EFFLUENT REPORT.

- 3) Xe-133 and Kr-85 Releases (FIRST half 1990) from Sorrento Electronics
- NO RELEASES FROM JANUARY THROUGH JUNE 1990 (Per G. Blair)
-

ATTACHMENT B

wor #162

**1990 STACK INFORMATION
JANURAY 1, 1990 THROUGH JUNE 30, 1990**

Background Information

Stack effluents in selected facilities are monitored. The samples are collected on a weekly basis and analyzed using low-level alpha/beta counting systems.

The average concentration (pCi/M^3) over the six month period is obtained for each stack (alpha and beta concentrations are added). Using the stack flow rate (M^3/sec), the total release in microcuries is calculated.

This information is summarized in this section. A Health Physics file entitled "Backup information for the semiannual effluent report for the period" details the information.

ALL RELEASES WERE BELOW THE MAXIMUM PERMISSIBLE CONCENTRATIONS AT THE RELEASE POINT DURING THIS SIX MONTH PERIOD.

WOR #162 LRQ
8/27/90

STACK FLOW DATA
JANUARY 1, 1990 THROUGH JUNE 30, 1990

STACK ID	FLOW RATE (FT ³ /MIN)	STACK AREA (FT ²)	M ³ /MIN	BACK-UP INFORMATION ENVIRONMENTAL LOGBOOK/ DATE MEASURED
<u>SV-A HIGH FUEL FABRICATION FACILITY (Building 37)</u>				
G-36	837	7.9	187.5	Pg 92 of Logbook #8337 measured 1/9/90
G-38	700	7.9	156.6	Pg 92 of Logbook #8337 measured 1/9/90
P-31	2393	7.9	535.2	"
P-34	1512	7.9	338.24	"
P-35	1631	7.9	364.9	"
P-47	3540	3.14	314.8	pg 78 of Logbook #8337 (No work in Progress (shut-down); measured 1/11/89)
<u>SV-B (Building 39)</u>				
FB1	2385	3.7	249.88	Pg 92 Log #8337 (1/9/90)
FB2	1480	3.7	155.06	Pg 92 Log #8337 (1/9/90)
FB3	1183	3.79	126.96	Pg 92 Log #8337 (1/9/90)
FB4	350	0.09	0.89	Pg 37 of Log #8337 (Not used, Not measured)
<u>TRIGA FUEL FABRICATION FACILITY (Building 22)</u>				
TFL 1	1120	6.875	218.0	Log #8337 (7/90)
TFL V	1070	5.812	176.1	Log #8337 (7/90)
<u>Hot Cell (Building 23)</u>	4250	3.14	377.9	Logbook #8337 (7/90)
<u>EA-1 BUNKER FACILITY (Building 27-1)</u>				
EA-1	BRK 1 2189		0.11	6.82 Logbook #8337 (7/90)
EA-1	BKR 2 1450		1.33	54.61 Logbook #8337 (7/90)
<u>TRIGA REACTORS (Building 21)</u>	180	1.51	77.9	Logbook #8337 (7/90)
<u>WASTE PROCESSING FACILITY (Building 41)</u>				
WPCF	3516	3.14	312.6	Logbook #8337 (7/90)

Note: $0.0283168 \text{ m}^3 = \text{ft}^3$

Weighted Average
{ Alpha + Beta }
Used in
Calculation

RUNNING AVERAGE REPORT
SUMMARY BY GROUP
UNITS = PCI/M3

GROUP 1.0. 04

SITE CODE	BEGIN MO	END MO	# MO	AVERAGE HIGHEST VALUE		AVERAGE WEIGHTED AVERAGE			AVERAGE LOWEST VALUE		
				ALPHA	BETA	ALPHA	BETA	ALPHA	BETA		
G36	01 90	06 90	6	.025	.034	.008	.016	.001	.004		
G38	01 90	06 90	6	.007	.025	.003	.011	.001	.004		
P31	01 90	06 90	6	.007	.016	.003	.009	.001	.003		
P34	01 90	06 90	6	.008	.022	.004	.012	.001	.005		
P35	01 90	06 90	6	.004	.019	.002	.010	.001	.003		
P47	01 90	04 90	4	.006	.028	.003	.011	.001	.005		

120 days : conversion factor = 0.1728*

GROUP AVERAGE:
AVERAGE OF SITE
AVERAGES FOR:

4 MONTHS	.010	.024	.004	.011	.001	.004
LAST 3 MONTHS ONLY	.012	.026	.004	.011	.001	.003

Conversion Factor:

$$\left\{ \frac{184 \text{ d}}{\text{period}} \times 24 \frac{\text{hr}}{\text{day}} \times \frac{60 \text{ min}}{\text{hr}} \times 10^{-6} \frac{\mu\text{Ci}}{\text{pci}} = 0.2650 \frac{\mu\text{Ci} \cdot \text{min}}{\text{pci} \cdot \text{month period}} \right\}$$

JAN - 31
FEB - 28
MAR - 31
APR - 30
MAY - 31
JUNE - 30
181 days

G-36	0.024 $\mu\text{Ci}/\text{m}^3$	x	187.5 m^3/min	x	0.2650	=	1.1925 $\mu\text{Ci}'\text{s}$
G-38	0.014	x	156.6 m^3/min	x	0.2650	=	0.5809 $\mu\text{Ci}'\text{s}$
P-31	0.012	x	535.2 m^3/min	x	0.2650	=	1.703 $\mu\text{Ci}'\text{s}$
P-34	0.016	x	338.24 m^3/min	x	0.2650	=	1.434 $\mu\text{Ci}'\text{s}$
P-35	0.012	x	364.9 m^3/min	x	0.2650	=	1.16 $\mu\text{Ci}'\text{s}$
* P-47	0.014	x	314.8	x	0.1728	=	0.762 $\mu\text{Ci}'\text{s}$
							6.832 $\mu\text{Ci}'\text{s}$

** PRINTED DATA VALUES ARE AVERAGES OF DATA PROCESSED.

RUNNING AVERAGE REPORT
SUMMARY BY GROUP
UNITS = FC1/M3

GROUP 1.D. 07

SITE CODE	BEGIN MO	END MO	# YR MO	AVERAGE HIGHEST VALUE			AVERAGE WEIGHTED AVERAGE			AVERAGE LOWEST VALUE				
				ALPHA	**	BETA	ALPHA	**	BETA	ALPHA	**	BETA		
FB1	01	90	06	90	6	.012		.032	.003		.014	.001		.004
FB2	01	90	06	90	6	.003		.034	.001		.015	.001		.005
FB3	01	90	06	90	6	.004		.015	.002		.010	.001		.006
FB4	01	90	06	90	6	.004		.023	.002		.015	.001		.007

GROUP AVERAGE:
AVERAGE OF SITE
AVERAGES FOR:

6 MONTHS	.006	.026	.002	.014	.001	.006
LAST 6 MONTHS ONLY	.008	.028	.003	.014	.001	.006

FB-1 $0.017 \times 249.88 \times 0.2650 = 1.126$ microcmies
 FB-2 $0.016 \times 155.06 \times 0.2650 = 0.657$ "
 FB-3 $0.012 \times 126.96 \times 0.2650 = 0.404$ "
 FB-4 $0.017 \times 249.88 \times 0.2650 = 1.126$ "

 3.312 "

RUNNING AVERAGE REPORT
SUMMARY BY GROUP
UNITS = PCI/M3

GROUP I.D. 16

SITE CODE	BEGIN MO	END MO	YR	#	AVERAGE HIGHEST VALUE			AVERAGE WEIGHTED AVERAGE			AVERAGE LOWEST VALUE		
					ALPHA	**	BETA	ALPHA	**	BETA	ALPHA	**	BETA
TFL1	01	06	90	6	.004		.013	.002		.006	.001		.003

GROUP AVERAGE:
AVERAGE OF SITE
AVERAGES FOR:

6 MONTHS	.004		.013	.002		.006	.001		.003
LAST 3 MONTHS ONLY	.002		.018	.001		.008	.001		.003

2 Stacks in this Facility - TFL1 & TFLV
The results are added together - see next
Page (results of TFLV stack).

** PRINTED DATA VALUES ARE AVERAGES OF DATA PROCESSED.

TRIGA Fuel Fab
Facility

RUNNING AVERAGE REPORT
SUMMARY BY GROUP
UNITS = PC1/M3

GROUP I.D. 17

SITE CODE	BEGIN MO YR	END MO YR	# MO	AVERAGE HIGHEST VALUE		AVERAGE WEIGHTED AVERAGE		AVERAGE LOWEST VALUE	
				ALPHA	** BETA	ALPHA	** BETA	ALPHA	** BETA
TFLV	01 90	06 90	6	.082	.017	.021	.007	.001	.002

GROUP AVERAGE:
AVERAGE OF SITE
AVERAGES FOR:

6 MONTHS	.082	.017	.021	.007	.001	.002
LAST 3 MONTHS ONLY	.030	.015	.003	.007	.001	.001

$$\begin{aligned}
 \text{TFL 1} & \quad .006 \times 218 \times 0.2650 = 0.347 \text{ } \mu\text{ci's} \\
 \text{TFLV} & \quad 0.028 \times 176.1 \times 0.2650 = 1.307 \text{ } \mu\text{ci's} \\
 & \quad \underline{\hspace{1.5cm}} \\
 & \quad 1.654 \text{ } \mu\text{ci}
 \end{aligned}$$

Hot Cell Stack (1)

Page 7 of 11

RUNNING AVERAGE REPORT SUMMARY BY GROUP UNITS = PCI/M3

GROUP I.D. 13

SITE CODE	BEGIN MO	END MO	#	AVERAGE HIGHEST VALUE		AVERAGE WEIGHTED AVERAGE			AVERAGE LOWEST VALUE		
				ALPHA	** BETA	ALPHA	**	BETA	ALPHA	**	BETA
HCS	01	90	06	90	6	.049	.490	.026	.235	.012	.104

GROUP AVERAGE:
AVERAGE OF SITE
AVERAGES FOR:

6 MONTHS	.049	.490	.026	.235	.012	.104
LAST 3 MONTHS ONLY	.030	.302	.014	.208	.008	.125

The Hot Cell Stack has both a filter paper (HCS results) and a charcoal filter for iodines (primarily) - (HCSI results). The results of both are added together. See next page (HCSI results) for Hot Cell totals.

Hot Cell Stack

RUNNING AVERAGE REPORT
SUMMARY BY GROUP
UNITS = PC1/M3

Page 8 of 11

GROUP I.D. 19

SITE CODE	BEGIN MO	END MO	YR	# MO	AVERAGE HIGHEST VALUE			AVERAGE WEIGHTED AVERAGE			AVERAGE LOWEST VALUE		
					ALPHA	**	BETA	ALPHA	**	BETA	ALPHA	**	BETA
HCSI	01	90	06	90	6	.000	.022	.000	.012	.000	.006		

GROUP AVERAGE:
AVERAGE OF SITE
AVERAGES FOR:

6 MONTHS	.000	.022	.000	.012	.000	.006
LAST 3 MONTHS ONLY	.000	.033	.000	.015	.000	.007

$$\begin{aligned} \text{HCS} & 0.261 \times 377.9 \times 0.265 = 26.137 \mu\text{Ci's} \\ \text{HCSI} & 0.012 \times 377.9 \times 0.265 = \frac{1.202}{27.339} \mu\text{Ci's} \end{aligned}$$

{Iodine}

EA-1 Bunker Facility Stacks (2)

(Y-90 Facility)

RUNNING AVERAGE REPORT
SUMMARY BY GROUP
UNITS = PCI/M3

Page 9 of 11

GROUP I.D. 20

SITE CODE	BEGIN MO YR	END MO YR	# MO	AVERAGE HIGHEST VALUE		AVERAGE WEIGHTED AVERAGE			AVERAGE LOWEST VALUE		
				ALPHA	** BETA	ALPHA	**	BETA	ALPHA	**	BETA
BKR1	01 90	06 90	6	.078	107.335	.023		35.458	.001		2.923
BKR2	01 90	06 90	6	.000	1.411	.002		.348	.001		.005

GROUP AVERAGE:
AVERAGE OF SITE
AVERAGES FOR:

6 MONTHS	.041	54.323	.012		17.903	.001		1.464
LAST 3 MONTHS ONLY	.043	48.275	.013		13.406	.001		.530

BKR 1 $17.915 \times 6.82 \times 0.265 = 32.378 \mu\text{Ci's}$

BKR 2 $0.350 \times 54.61 \times 0.265 = 5.065 \mu\text{Ci's}$

37.443 $\mu\text{Ci's}$

TRIGA Reactor
Facility Stack

RUNNING AVERAGE REPORT
 SUMMARY BY GROUP
 UNITS = PCI/M3

Page 10 of 11

GROUP I.D. 12

SITE CODE	BEGIN MO	END MO	# YR	MO	YR	# MO	AVERAGE HIGHEST VALUE			AVERAGE WEIGHTED AVERAGE			AVERAGE LOWEST VALUE		
							ALPHA	**	BETA	ALPHA	**	BETA	ALPHA	**	BETA
TMI	01	90	06	90	6		.020		.084	.005		.051	.001		.024

GROUP AVERAGE:
 AVERAGE OF SITE
 AVERAGES FOR:

6 MONTHS	.020		.084	.005		.051	.001		.024
LAST 3 MONTHS ONLY	.004		.071	.001		.045	.001		.024

$$TMI \quad 0.056 \times 77.9 \times 0.265 = 1.156 \mu\text{Ci}'\text{S}$$

Nuclear Waste
 Processing Facility
Compactor Stack

RUNNING AVERAGE REPORT
 SUMMARY BY GROUP
 UNITS = PC1/M3

Page 11 of 11

GROUP I.D. 14

SITE CODE	BEGIN MO	END MO	# YR	MO	YR	# MO	AVERAGE HIGHEST VALUE			AVERAGE WEIGHTED AVERAGE			AVERAGE LOWEST VALUE		
							ALPHA	**	BETA	ALPHA	**	BETA	ALPHA	**	BETA
WPC	01	90	06	90	6		.025		.145	.010		.051	.002		.014

GROUP AVERAGE:
 AVERAGE OF SITE
 AVERAGES FOR:

6 MONTHS	.025	.145	.010	.051	.002	.014
LAST 3 MONTHS ONLY	.016	.190	.008	.057	.002	.006

$$WPC = 0.061 \times 312.6 \times 0.265 = 5.053 \mu\text{Ci's}$$