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# NRC TLD Direct Radiation Monitoring Network

Progress Report  
January - March 1982

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**U.S. Nuclear Regulatory  
Commission**

F. Costello, T. Thompson, L. Cohen



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Region I  
U.S. Nuclear Regulatory Commission  
King of Prussia, PA 19406



Preface

This report is part of a continuous series providing data from the NRC's Thermoluminescent Dosimeter (TLD) Direct Radiation Monitoring Network. This report presents data for the first quarter of 1982.

The network is operated by the NRC in cooperation with participating states. The report presents the radiation exposure levels measured in the vicinities of NRC-licensed facilities throughout the country and includes facilities under construction as well as those which are in operation. A complete listing of the sites monitored is included. Each site is monitored by approximately 40 TLD stations located in concentric rings. A complete description of the program can be found in NUREG-0837, Volume 1, Numbers 1 and 2.

The measured radiation levels are reported in units of milliroentgens. They are gross exposures and include exposures received while the dosimeters were in transit as well as exposures received in the field. A control TLD, labeled CTL TLD in the reports, accompanied the TLD shipment during transit and was stored in a low background area while the other TLDs were in the field. The control TLD exposure is given for the purpose of comparison and as an indication of transit exposure to the field TLDs. Station numbers which are not included represent stations which have been deleted, stations for which the TLD was lost during the quarter, or stations for which the TLD was damaged. Occasionally, a control TLD is not included because it was also lost or damaged.

Three sets of data are presented for each site. The first set includes the TLD station number, its direction and distance from the site, the integrated exposure for the period, and the exposure normalized to a ninety day quarter (standard quarter). The "std. dev." identified in the reports refers to the measurement error as determined by the standard deviation of the mean of the readings of the two calcium sulfate elements in each dosimeter.

The second set of data summarizes in tabular form the average exposure measured in each of the sixteen standard windrose sectors around the facility and normalized to a standard quarter. The "std. dev." refers to the standard deviation of the measurements made in each sector.

The third set of data summarizes the average exposure measured at three ranges of distances from the facility and normalized to a standard quarter. The "std. dev." refers to the standard deviation of the measurements made in each range.

A change has been made this quarter in the number of elements being used to determine exposure on a routine basis. Previously, as described in NUREG-0837, Volume 1, Numbers 1 and 2, all four elements of the dosimeter (two lithium borate elements, two calcium sulfate elements) were used in calculating exposure. Based on studies of the reproducibility and other response factors of the dosimeter which were performed at the National Bureau of



Standards, it was determined that for routine measurements the precision of the results can be improved by using only the two calcium sulfate elements. In the event of an unusual situation involving possible exposures due to low energy photons or beta radiation, the data from the lithium borate elements will also be used. The results of the NBS evaluation of the NRC environmental radiation dosimeter are available in NUREG/CR-2560.

Sites Monitored During First Quarter, 1982

1. Arkansas Nuclear One
2. Beaver Valley
3. Big Rock Point
4. Browns Ferry
5. Brunswick
6. Calvert Cliffs
7. D. C. Cook
8. Cooper
9. Crystal River
10. Davis-Besse
11. Diablo Canyon
12. Dresden
13. Duane Arnold
14. Farley
15. Fitzpatrick/Nine Mile Point
16. Fort Calhoun
17. Fort St. Vrain
18. Ginna
19. Grand Gulf
20. Haddam Neck
21. Hatch
22. Indian Point
23. Kewaunee/Point Beach
24. Lacrosse
25. LaSalle
26. Maine Yankee
27. McGuire
28. Millstone
29. Monticello
30. North Anna
31. Oconee
32. Oyster Creek
33. Palisades
34. Palo Verde
35. Peach Bottom
36. Pilgrim
37. Prairie Island
38. Quad Cities
39. Rancho Seco
40. Robinson
41. St. Lucie
42. Salem/Hope Creek
43. San Onofre
44. Sequayah
45. Summer
46. Surry
47. Susquehanna
48. Three Mile Island
49. Trojan
50. Turkey Point
51. Vermont Yankee
52. Washington (WPPSS)
53. Watts Barr
54. Yankee Rowe
55. Zimmer
56. Zion

ARKANSAS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811216-820413 119 DAYS  
 FIELD TIME 820108-820406 89 DAYS

STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
023	257	2.80	16.5 +- .2		12.5 +- .1	
024	243	4.50	18.1 +- .0		13.7 +- .0	
025	279	1.20	22.2 +- .1		16.8 +- .1	
026	263	4.30	19.1 +- .1		14.5 +- .0	
027	298	0.40	20.8 +- .1		15.7 +- .1	
028	293	5.80	18.1 +- .3		13.7 +- .2	
029	326	1.90	19.7 +- .7		14.9 +- .5	
030	308	4.80	18.6 +- .1		14.0 +- .1	
031	345	1.30	20.0 +- .1		15.1 +- .1	
032	335	4.20	17.1 +- .2		13.0 +- .2	
033	110	0.80	19.4 +- .1		14.7 +- .1	
039	112	6.00	19.2 +- .7		14.5 +- .5	
040	147	8.00	25.2 +- .5		19.0 +- .4	
042	310	17.0	17.8 +- .3		13.4 +- .2	
043	0	5.20	20.6 +- .5		15.6 +- .4	
044	0	9.10	19.4 +- .5		14.7 +- .4	
045	0	8.90	17.0 +- 0.0		12.9 +- 0.0	
046	0	8.30	20.3 +- .5		15.3 +- .4	
047	-	-	17.3 +- .4		13.1 +- .3	
048	-	-	18.3 +- .1		13.8 +- .1	
049	-	-	25.0 +- .6		18.9 +- .4	

nktr SAS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 82011216-820413 119 DAYS  
FIELD TIME 820108-820406 89 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (Deg.)	DIS (mi.)	EXPOSURE (mR)	+/- Std. Dev.	mR/Std. Qtr.	+/- Std. Dev.
002	353	4.10	19.4	+-.3	14.7	+-.2
003	32	1.30	19.9	+-.6	15.1	+-.5
004	13	3.30	18.7	+-.5	14.1	+-.3
005	53	1.50	18.6	+-.2	14.1	+-.1
006	37	3.60	18.3	+-.1	13.8	+-.1
007	78	2.50	20.6	+-.3	15.6	+-.2
008	60	3.20	21.1	+-.5	16.0	+-.4
009	92	0.50	20.1	+-.3	15.2	+-.2
010	83	5.50	18.9	+-.4	14.3	+-.3
011	122	2.10	17.3	+-.4	13.1	+-.3
012	109	6.80	17.9	+-.8	13.6	+-.6
013	138	2.60	15.8	+-.2	12.0	+-.2
014	130	4.90	17.2	+-.2	13.0	+-.2
016	167	4.40	19.5	+-.1	14.8	+-.0
017	171	0.40	18.1	+-.2	13.7	+-.1
018	189	3.20	18.3	+-.2	13.8	+-.2
019	205	2.90	18.1	+-.1	13.7	+-.0
020	195	5.80	17.3	+-.1	13.1	+-.0
021	235	0.50	20.1	+-.4	15.2	+-.3
022	230	3.60	16.1	+-.5	12.2	+-.4

ARKANSAS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811216-820413 119 DAYS  
FIELD TIME 820108-820406 89 DAYS

NRC STATION	LOCATION AZIMUTH/DIST (deg.) (mi.)	INTEGRATED EXPOSURE(mR) +- Std. Dev.	EXPOSURE RATE mR/Std. Dev. +- Std. Dev.
050	CTL TLD	25.0 +- .3	18.9 +- .2

ARKANSAS  
FOR THE PERIOD 811216-820413 119 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	14.6 $\pm$ 1.1	5
11.25-33.75 (NNE)	14.6 $\pm$ .7	2
33.75-56.25 (NE)	13.8 $\pm$ .1	2
56.25-78.75 (ENE)	15.8 $\pm$ .3	2
78.75-101.25 (E)	14.7 $\pm$ .6	2
101.25-123.75 (ESE)	14.0 $\pm$ .8	4
123.75-146.25 (SE)	12.5 $\pm$ .7	2
146.25-168.75 (SSE)	16.8 $\pm$ 3.0	2
168.75-191.25 (S)	13.8 $\pm$ .1	2
191.25-213.75 (SSW)	13.4 $\pm$ .4	2
213.75-236.25 (SW)	13.7 $\pm$ 2.1	2
236.25-258.75 (WSW)	13.1 $\pm$ .9	2
258.75-281.25 (W)	15.6 $\pm$ 1.7	2
281.25-303.75 (WNW)	14.7 $\pm$ 1.4	2
303.75-326.25 (NW)	14.1 $\pm$ .7	3
326.25-348.75 (NNW)	14.0 $\pm$ 1.5	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	15.0 $\pm$ .9	10
2-5	13.8 $\pm$ 1.1	17
>5	14.6 $\pm$ 1.7	11

BEAVER VALLEY

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820405 110 DAYS  
 FIELD TIME 820106-820329 83 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
001	344	15.8	16.0 +- .1		13.1 +- .1	
002	6	13.0	16.7 +- .5		13.7 +- .4	
004	31	12.0	18.3 +- 1.0		15.0 +- .8	
005	55	8.40	17.9 +- .3		14.6 +- .2	
006	60	9.50	18.8 +- .1		15.3 +- .0	
007	97	8.00	19.0 +- .5		15.5 +- .4	
008	110	4.30	24.2 +- .7		19.8 +- .6	
009	110	2.20	18.6 +- .4		15.2 +- .3	
010	91	2.40	19.2 +- .5		15.7 +- .4	
011	77	3.70	23.4 +- .7		19.2 +- .5	
012	153	4.20	25.6 +- .3		20.9 +- .2	
013	170	4.40	22.4 +- .4		18.3 +- .4	
015	208	3.50	22.7 +- 2.1		18.5 +- 1.8	
016	264	5.60	23.3 +- .3		19.1 +- .2	
017	270	6.30	21.1 +- .1		17.3 +- .0	
018	232	2.40	22.1 +- .8		18.1 +- .7	
019	267	2.30	24.4 +- .7		19.9 +- .6	
020	294	3.40	16.1 +- .1		13.1 +- .1	
021	286	1.40	24.2 +- .0		19.8 +- .0	
022	220	1.30	22.9 +- .4		18.8 +- .3	

BEAVER VALLEY

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 0811217-0820405 110 DAYS  
 FIELD TIME 020106-020329 83 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R	
	AZIMUTH/DIST (deg.) (m <sup>2</sup> .)		EXPOSURE (mR)		mR/Std. Dev.	
			+ - Std. Dev.		+ - Std. Dev.	
023	255	2.30	24.5 +- .6		20.1 +- .5	
024	209	2.10	21.4 +- .4		17.5 +- .3	
025	186	2.10	24.4 +- 1.1		19.9 +- .9	
026	190	2.20	23.9 +- 1.0		19.6 +- .8	
027	125	2.00	24.7 +- .5		20.2 +- .4	
029	59	1.50	22.7 +- .6		18.5 +- .5	
030	50	1.20	22.6 +- .5		18.5 +- .4	
031	320	1.20	25.8 +- .9		21.1 +- .7	
033	341	2.50	24.7 +- .3		20.2 +- .3	
034	343	5.20	16.2 +- .0		13.3 +- .0	
035	9	3.60	23.0 +- .3		18.8 +- .2	
036	14	3.30	24.1 +- .1		19.7 +- .1	
037	37	3.00	21.2 +- 1.5		17.4 +- 1.2	
038	22	1.80	22.1 +- .4		18.1 +- .3	
039	351	1.60	23.7 +- 1.1		19.4 +- .9	
040	344	15.8	22.1 +- 1.1		18.1 +- .9	
041	344	15.8	16.5 +- .3		13.5 +- .3	
050	CTL	TLD	7.8 +- .5		6.4 +- .4	



BEAVER VALLEY  
FOR THE PERIOD 811217-820405 110 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	17.3 $\pm$ 3.1	3
11.25-33.75 (NNE)	17.6 $\pm$ 2.4	3
33.75-56.25 (NE)	16.8 $\pm$ 2.0	3
56.25-78.75 (ENE)	17.7 $\pm$ 2.1	3
78.75-101.25 (E)	15.6 $\pm$ .1	2
101.25-123.75 (ESE)	17.5 $\pm$ 3.2	2
123.75-146.25 (SE)	20.2 $\pm$ 0.0	1
146.25-168.75 (SSE)	20.9 $\pm$ 0.0	1
168.75-191.25 (S)	19.3 $\pm$ .8	3
191.25-213.75 (SSW)	18.0 $\pm$ .7	2
213.75-236.25 (SW)	18.4 $\pm$ .5	2
236.25-258.75 (WSW)	20.1 $\pm$ 0.0	1
258.75-281.25 (W)	18.8 $\pm$ 1.3	3
281.25-303.75 (WNW)	16.5 $\pm$ 4.7	2
303.75-326.25 (NW)	21.1 $\pm$ 0.0	1
326.25-348.75 (NNW)	15.6 $\pm$ 3.3	5

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	19.3 $\pm$ 1.0	8
2-5	18.4 $\pm$ 2.0	18
>5	15.3 $\pm$ 2.0	11

## BIG ROCK POINT

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820416 121 DAYS  
 FIELD TIME 811226-820403 99 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. De	
001	208	4.90	21.0 +- 2.5		15.6 +- 1.9	
002	220	3.60	21.3 +- .2		15.8 +- .2	
003	204	2.40	21.7 +- .4		16.2 +- .3	
004	176	3.30	20.7 +- .1		15.4 +- .1	
005	161	4.60	20.6 +- .5		15.3 +- .3	
006	133	4.70	19.2 +- 1.2		14.3 +- .9	
007	116	3.70	21.2 +- .3		15.8 +- .2	
008	111	4.70	19.7 +- .7		14.7 +- .5	
009	98	4.50	20.4 +- .5		15.2 +- .4	
010	88	12.4	18.2 +- .7		13.5 +- .5	
011	83	16.0	20.0 +- .3		14.9 +- .3	
012	83	16.0	19.3 +- .3		14.4 +- .2	
013	83	16.0	19.9 +- .4		14.8 +- .3	
014	77	3.40	20.4 +- .7		15.1 +- .6	
015	96	1.80	20.5 +- .5		15.2 +- .4	
016	118	2.00	20.6 +- .1		15.3 +- .0	
017	134	2.00	19.5 +- 1.1		14.5 +- .8	
018	222	1.90	18.8 +- .1		14.0 +- .0	
019	194	1.40	21.7 +- .7		16.1 +- .5	
020	179	1.50	20.1 +- .4		15.0 +- .3	

BIG ROCK POINT

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820416 121 DAYS  
 FIELD TIME 811226-820403 99 DAYS

NRC STATION	LOCATION AZIMUTH/DIST (deg.) (mi.)		INTEGRATED EXPOSURE(mR) +- Std. Dev.	EXPOSURE R. mR/Std. Dev +- Std. Dev
021	153	1.10	19.9 +- .9	14.8 +- .7
050	CTL	TLD	16.0 +- 1.3	11.9 +- .9

BIG ROCK POINT  
FOR THE PERIOD 811217-820416 121 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 +- 0.0	0
11.25-33.75 (NNE)	0.0 +- 0.0	0
33.75-56.25 (NE)	0.0 +- 0.0	0
56.25-78.75 (ENE)	15.1 +- 0.0	1
78.75-101.25 (E)	14.7 +- .6	6
101.25-123.75 (ESE)	15.3 +- .6	3
123.75-146.25 (SE)	14.4 +- .1	2
146.25-168.75 (SSE)	15.0 +- .3	2
168.75-191.25 (S)	15.2 +- .3	2
191.25-213.75 (SSW)	16.0 +- .3	3
213.75-236.25 (SW)	14.9 +- 1.3	2
236.25-258.75 (WSW)	0.0 +- 0.0	0
258.75-281.25 (W)	0.0 +- 0.0	0
281.25-303.75 (WNW)	0.0 +- 0.0	0
303.75-326.25 (NW)	0.0 +- 0.0	0
326.25-348.75 (NNW)	0.0 +- 0.0	0

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	15.0 +- .7	7
2-5	15.3 +- .6	10
>5	14.4 +- .6	4

## BROWNS FERRY

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 011217-020416 121 DAYS  
 FIELD TIME 020107-020407 91 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev	
001	130	9.00	15.7 +- .6		11.7 +- .4	
002	133	5.50	16.0 +- .2		11.9 +- .1	
003	153	4.30	17.2 +- .1		12.8 +- .0	
004	210	5.80	18.0 +- .4		13.4 +- .3	
005	220	6.00	16.5 +- .3		12.3 +- .2	
006	245	4.50	20.2 +- .6		15.0 +- .4	
007	269	1.90	18.4 +- .2		13.7 +- .1	
008	257	11.1	17.7 +- .3		13.1 +- .3	
010	292	4.50	18.0 +- .3		13.4 +- .2	
011	269	1.90	17.6 +- .3		13.1 +- .2	
012	240	2.60	17.8 +- .4		13.2 +- .3	
013	220	1.70	15.4 +- .1		11.5 +- .1	
014	268	17.0	24.9 +- .3		18.5 +- .2	
015	201	3.00	19.1 +- .5		14.2 +- .4	
016	181	3.00	18.1 +- .4		13.5 +- .3	
017	50	9.50	18.4 +- .6		13.7 +- .4	
018	51	3.50	16.6 +- .4		12.3 +- .3	
019	62	3.20	17.3 +- .3		12.9 +- .2	
020	86	2.80	19.9 +- .1		14.8 +- .1	
021	111	3.10	19.1 +- .1		14.2 +- .1	

BROWNS FERRY

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 00011217-00020416 121 DAYS  
 FIELD TIME 00020107-00020407 91 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R <sub>t</sub>	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Otr. +- Std. Dev	
022	64	1.10	20.6 +- .3		15.3 +- .2	
023	90	26.0	17.3 +- .7		12.9 +- .5	
024	111	0.80	18.6 +- .5		13.9 +- .3	
025	46	2.20	17.2 +- .3		12.8 +- .2	
026	26	1.70	19.9 +- .2		14.8 +- .1	
027	333	1.70	18.5 +- .0		13.8 +- .0	
028	335	1.00	18.7 +- .1		13.9 +- .1	
029	27	3.80	18.9 +- .4		14.1 +- .3	
030	0	4.00	16.3 +- .0		12.1 +- .0	
031	340	5.30	19.6 +- .1		14.6 +- .1	
032	312	12.0	18.9 +- .5		14.0 +- .4	
033	0	1.50	21.6 +- .8		16.0 +- .6	
034	52	7.00	17.4 +- .1		12.9 +- .1	
035	95	5.40	18.1 +- .1		13.5 +- .0	
036	68	5.60	24.1 +- .5		17.9 +- .4	
037	149	7.80	16.1 +- .3		12.0 +- .2	
038	164	7.00	15.2 +- .1		11.3 +- .1	

BROWNS FERRY  
FOR THE PERIOD 811217-820416 121 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	14.1 $\pm$ 2.8	2
11.25-33.75 (NNE)	14.4 $\pm$ .5	2
33.75-56.25 (NE)	12.9 $\pm$ .6	4
56.25-78.75 (ENE)	15.4 $\pm$ 2.5	3
78.75-101.25 (E)	13.7 $\pm$ 1.0	3
101.25-123.75 (ESE)	14.0 $\pm$ .3	2
123.75-146.25 (SE)	11.8 $\pm$ .2	2
146.25-168.75 (SSE)	12.0 $\pm$ .8	3
168.75-191.25 (S)	13.5 $\pm$ 0.0	1
191.25-213.75 (SSW)	13.8 $\pm$ .6	2
213.75-236.25 (SW)	11.9 $\pm$ .5	2
236.25-258.75 (WSW)	13.8 $\pm$ 1.1	3
258.75-281.25 (W)	15.1 $\pm$ 3.0	3
281.25-303.75 (WNW)	13.4 $\pm$ 0.0	1
303.75-326.25 (NW)	14.0 $\pm$ 0.0	1
326.25-348.75 (NNW)	14.1 $\pm$ .4	3

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	14.0 $\pm$ 1.3	9
2-5	13.5 $\pm$ .9	13
>5	13.6 $\pm$ 2.1	15

## BRUNSWICK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 011217-020407 112 DAYS  
 FIELD TIME 020106-020402 87 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dt +- Std. D	
001	260	2.20	19.7 +- .5		15.8 +- .4	
002	245	3.40	19.9 +- .3		16.0 +- .2	
003	231	3.80	18.3 +- .3		14.7 +- .2	
004	210	4.90	20.7 +- .8		16.6 +- .6	
005	186	4.30	20.0 +- .8		16.0 +- .6	
006	270	4.50	18.7 +- .1		15.0 +- .1	
007	272	4.40	18.2 +- .4		14.6 +- .3	
009	97	1.00	21.2 +- .0		17.0 +- .0	
010	120	1.50	20.1 +- .7		16.2 +- .6	
011	131	0.90	23.3 +- .0		18.7 +- .0	
012	156	1.10	22.7 +- .5		18.2 +- .4	
013	180	1.10	23.6 +- 1.1		18.9 +- .9	
014	194	2.40	22.4 +- .2		18.0 +- .2	
015	201	2.00	20.5 +- 1.0		16.4 +- .8	
016	218	1.20	20.8 +- .2		16.7 +- .1	
017	252	1.10	24.4 +- .2		19.6 +- .1	
018	272	1.20	21.5 +- .3		17.3 +- .3	
019	19	1.10	21.1 +- .0		17.0 +- .0	
020	2	1.10	21.0 +- .2		16.9 +- .1	
021	288	1.30	18.5 +- .6		14.8 +- .5	



## BRUNSWICK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820407 112 DAYS  
 FIELD TIME 820106-820402 87 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
022	307	1.50	20.4 +- 1.0		16.4 +- .8	
023	338	2.10	19.1 +- .5		15.3 +- .4	
024	325	4.90	19.1 +- .3		15.3 +- .2	
025	338	3.80	19.8 +- 1.0		15.9 +- .8	
026	356	5.20	18.6 +- 1.3		15.0 +- 1.1	
027	30	6.40	19.4 +- .1		15.6 +- .1	
028	43	9.00	20.4 +- .6		16.4 +- .5	
029	50	8.50	19.2 +- .2		15.5 +- .2	
030	59	7.20	20.1 +- .2		16.1 +- .1	
031	65	6.50	20.0 +- .3		16.0 +- .3	
032	74	5.80	22.6 +- .0		18.1 +- .0	
033	88	4.10	19.3 +- .3		15.5 +- .3	
034	12	17.5	19.5 +- .7		15.7 +- .5	
035	16	18.0	18.8 +- .7		15.1 +- .5	
036	284	15.5	21.8 +- .4		17.5 +- .3	
037	284	15.7	20.6 +- 1.2		16.5 +- 1.0	
038	285	15.5	19.2 +- .2		15.4 +- .2	
039	287	4.60	18.6 +- .6		14.9 +- .5	
040	271	0.70	22.1 +- .2		17.8 +- .2	

BRUNSWICK  
 FOR THE PERIOD 811217-820407 112 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	15.9 $\pm$ 1.4	2
11.25-33.75 (NNE)	15.8 $\pm$ .8	4
33.75-56.25 (NE)	15.9 $\pm$ .7	2
56.25-78.75 (ENE)	16.8 $\pm$ 1.2	3
78.75-101.25 (E)	16.3 $\pm$ 1.1	2
101.25-123.75 (ESE)	16.2 $\pm$ 0.0	1
123.75-146.25 (SE)	18.7 $\pm$ 0.0	1
146.25-168.75 (SSE)	18.2 $\pm$ 0.0	1
168.75-191.25 (S)	17.5 $\pm$ 2.0	2
191.25-213.75 (SSW)	17.0 $\pm$ .8	3
213.75-236.25 (SW)	15.7 $\pm$ 1.4	2
236.25-258.75 (WSW)	17.8 $\pm$ 2.5	2
258.75-281.25 (W)	16.1 $\pm$ 1.4	5
281.25-303.75 (WNW)	15.9 $\pm$ 1.2	5
303.75-326.25 (NW)	15.9 $\pm$ .7	2
326.25-348.75 (NNW)	15.6 $\pm$ .4	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	17.3 $\pm$ 1.3	14
2-5	15.7 $\pm$ .9	13
>5	16.1 $\pm$ 1.0	12

## CALVERT CLIFFS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820407 99 DAYS  
 FIELD TIME 820101-820405 95 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	275	1.50	14.6 +- .4		13.3 +- .3	
003	284	1.70	15.0 +- .1		13.7 +- .1	
004	323	2.40	16.0 +- .3		14.5 +- .2	
005	297	3.10	15.0 +- .3		13.6 +- .3	
006	324	4.70	14.9 +- .0		13.6 +- .0	
007	324	5.50	14.2 +- .1		12.9 +- .1	
009	273	4.10	15.7 +- .3		14.3 +- .2	
010	253	3.70	14.4 +- .4		13.1 +- .3	
011	230	4.00	16.1 +- .7		14.6 +- .6	
012	243	1.30	16.1 +- .3		14.6 +- .3	
014	200	1.80	14.4 +- .0		13.1 +- .0	
015	176	2.40	16.2 +- 1.2		14.7 +- 1.1	
016	160	1.50	17.8 +- .2		16.2 +- .2	
019	159	3.80	15.1 +- .2		13.7 +- .2	
020	139	4.70	14.1 +- .4		12.8 +- .4	
021	201	4.00	15.6 +- .5		14.2 +- .5	
022	187	4.70	15.2 +- .6		13.8 +- .5	
023	201	6.70	16.3 +- .2		14.9 +- .2	
024	190	7.80	15.6 +- .2		14.2 +- .2	
025	325	6.70	14.6 +- .4		13.2 +- .4	

CALVERT CLIFFS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820407 99 DAYS  
 FIELD TIME 820101-820435 95 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE(mR)		EXPOSURE RA mR/Std.Qtr.	
	AZIMUTH (deg.)	DIST (mi.)	+ -	Std. Dev.	+ -	Std. Dev.
026	314	10.6	14.9	+ - .0	13.5	+ - .0
027	314	10.6	15.4	+ - .1	14.0	+ - .1
028	315	10.5	16.3	+ - .8	14.8	+ - .7
029	186	11.6	16.4	+ - .3	14.9	+ - .3
050	CTL	TLD	9.9	+ - .3	9.0	+ - .3

CALVERT CLIFFS  
 FOR THE PERIOD 811230-820407 99 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 +- 0.0	0
11.25-33.75 (NNE)	0.0 +- 0.0	0
33.75-56.25 (NE)	0.0 +- 0.0	0
56.25-78.75 (ENE)	0.0 +- 0.0	0
78.75-101.25 (E)	0.0 +- 0.0	0
101.25-123.75 (ESE)	0.0 +- 0.0	0
123.75-146.25 (SE)	12.0 +- 0.0	1
146.25-168.75 (SSE)	15.0 +- 1.7	2
168.75-191.25 (S)	14.4 +- .5	4
191.25-213.75 (SSW)	14.0 +- .9	3
213.75-236.25 (SW)	14.6 +- 0.0	1
236.25-258.75 (WSW)	13.9 +- 1.1	2
258.75-281.25 (W)	13.0 +- .7	2
281.25-303.75 (WNW)	13.7 +- .0	2
303.75-326.25 (NW)	13.8 +- .7	7
326.25-348.75 (NNW)	0.0 +- 0.0	0

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	14.2 +- 1.3	5
2-5	13.9 +- .6	11
>5	14.1 +- .8	8

D.C. COOK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811217-820504 139 DAYS  
FIELD TIME 811229-820407 100 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE FACTOR	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev.	+- Std. Dev.
001	54	1.70	23.5 +- .4		15.2 +- .2	
002	67	1.30	25.2 +- .9		16.3 +- .6	
003	89	1.10	15.3 +- .3		9.9 +- .2	
004	58	0.70	23.2 +- .5		15.0 +- .3	
005	19	2.30	23.6 +- .5		15.3 +- .3	
006	111	1.60	25.0 +- .5		16.2 +- .3	
007	135	1.50	24.4 +- 2.4		15.8 +- 1.6	
008	158	1.40	24.2 +- .9		15.6 +- .6	
009	171	1.90	22.7 +- .2		14.7 +- .2	
010	199	1.50	23.7 +- .1		15.3 +- .1	
011	155	3.90	25.7 +- .3		16.6 +- .2	
012	200	6.60	26.3 +- .1		17.0 +- .1	
013	179	3.90	28.3 +- .6		18.3 +- .4	
014	151	4.40	26.7 +- .0		17.3 +- .0	
015	130	4.60	27.9 +- .4		18.0 +- .2	
016	110	3.70	25.5 +- .0		16.5 +- .0	
017	88	3.60	25.2 +- .6		16.3 +- .4	
018	67	3.80	26.2 +- .1		17.0 +- .0	
019	24	3.80	17.7 +- .3		11.4 +- .2	
020	43	3.30	27.3 +- .3		17.7 +- .2	

D.C. COOK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811217-820504 139 DAYS  
FIELD TIME 811229-820407 100 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
021	26	9.90	30.1 +- .2		19.5 +- .1	
022	121	18.2	25.7 +- .2		16.6 +- .1	
023	121	18.2	24.8 +- .5		16.0 +- .3	
024	121	18.4	28.5 +- .2		18.4 +- .1	

D. C. COOK  
 FOR THE PERIOD 811217-820504 139 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 +- 0.0	0
11.25-33.75 (NNE)	15.4 +- 4.0	3
33.75-56.25 (NE)	16.4 +- 1.8	2
56.25-78.75 (ENE)	16.1 +- 1.0	3
78.75-101.25 (E)	13.1 +- 4.5	2
101.25-123.75 (ESE)	16.8 +- 1.0	5
123.75-146.25 (SE)	16.9 +- 1.6	2
146.25-168.75 (SSE)	16.5 +- 1.2	2
168.75-191.25 (S)	16.5 +- 2.6	2
191.25-213.75 (SSW)	16.3 +- .9	3
213.75-236.25 (SW)	0.0 +- 0.0	0
236.25-258.75 (WSW)	0.0 +- 0.0	0
258.75-281.25 (W)	0.0 +- 0.0	0
281.25-303.75 (WNW)	0.0 +- 0.0	0
303.75-326.25 (NW)	0.0 +- 0.0	0
326.25-348.75 (NNW)	0.0 +- 0.0	0

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	14.9 +- 1.9	9
2-5	16.4 +- 2.0	10
>5	17.5 +- 1.4	5



COOPER

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820414 119 DAYS  
 FIELD TIME 811229-820402 95 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
51	160	2.40	21.9 +- .9		16.5 +- .7	
52	6	3.50	28.6 +- .7		21.7 +- .6	
53	18	2.70	27.8 +- 1.3		21.0 +- 1.0	
54	16	3.20	26.8 +- .0		20.3 +- .0	
55	47	1.90	28.7 +- .4		21.7 +- .3	
56	40	3.60	27.9 +- 1.3		21.1 +- 1.0	
57	75	2.70	29.8 +- .6		22.5 +- .5	
58	55	2.80	28.0 +- .0		21.2 +- .0	
59	80	2.10	30.8 +- 1.4		23.3 +- 1.0	
60	98	3.70	30.4 +- 1.0		23.0 +- .8	
61	118	2.30	28.9 +- .1		21.8 +- .1	
62	109	4.60	27.9 +- .5		21.1 +- .4	
63	141	3.20	28.6 +- .7		21.6 +- .6	
64	126	5.60	29.1 +- .2		22.0 +- .1	
65	159	2.70	30.4 +- .8		23.0 +- .6	
66	167	4.90	30.6 +- .5		23.1 +- .4	
67	205	0.30	30.3 +- .8		22.9 +- .6	
68	186	4.70	28.6 +- .2		21.6 +- .2	
69	213	3.00	28.4 +- 1.2		21.5 +- .9	
70	195	4.90	30.6 +- .1		23.2 +- .0	

## COOPER

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820414 119 DAYS  
 FIELD TIME 811229-820402 95 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
71	222	2.00	27.0 +- .0		20.4 +- .0	
72	215	5.70	29.4 +- .1		22.2 +- .1	
73	256	1.50	28.4 +- .2		21.4 +- .2	
74	238	5.20	30.9 +- .5		23.4 +- .4	
75	276	2.20	27.8 +- 1.8		21.0 +- 1.3	
76	260	3.80	29.6 +- .6		22.4 +- .5	
77	301	1.80	29.2 +- .3		22.1 +- .3	
78	286	4.30	29.2 +- .1		22.1 +- .1	
79	324	2.80	31.9 +- 1.0		24.1 +- .8	
80	333	3.70	29.3 +- .7		22.2 +- .6	
81	343	2.60	31.5 +- .4		23.8 +- .3	
82	333	3.70	28.9 +- .8		21.8 +- .6	
83	215	1.00	28.2 +- .4		21.3 +- .3	
85	333	23.0	30.1 +- .9		22.7 +- .7	
86	210	19.0	34.5 +- .1		26.1 +- .1	
87	64	7.00	34.2 +- .8		25.9 +- .6	
88	329	9.00	29.8 +- .5		22.6 +- .4	
89	276	10.0	29.2 +- .6		22.1 +- .5	
90	300	2.50	29.5 +- .4		22.3 +- .3	
92	93	3.50	27.7 +- .6		20.9 +- .4	
93	270	2.20	29.5 +- .4		22.3 +- .3	

COOPER  
 FOR THE PERIOD 811217-820414 119 DAYS  
 TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	19.1 $\pm$ 3.6	2
11.25-33.75 (NNE)	20.7 $\pm$ .5	2
33.75-56.25 (NE)	21.3 $\pm$ .3	3
56.25-78.75 (ENE)	24.2 $\pm$ 2.4	2
78.75-101.25 (E)	22.4 $\pm$ 1.3	3
101.25-123.75 (ESE)	21.5 $\pm$ .5	2
123.75-146.25 (SE)	21.8 $\pm$ .3	2
146.25-168.75 (SSE)	23.0 $\pm$ .1	2
168.75-191.25 (S)	21.6 $\pm$ 0.0	1
191.25-213.75 (SSW)	23.4 $\pm$ 1.9	4
213.75-236.25 (SW)	21.3 $\pm$ .9	3
236.25-258.75 (WSW)	22.4 $\pm$ 1.4	2
258.75-281.25 (W)	21.9 $\pm$ .6	4
281.25-303.75 (WNW)	22.1 $\pm$ .1	3
303.75-326.25 (NW)	24.1 $\pm$ 0.0	1
326.25-348.75 (NNW)	22.6 $\pm$ .8	5

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	21.6 $\pm$ .8	6
2-5	21.9 $\pm$ 1.4	27
>5	23.4 $\pm$ 1.7	8

## CRYSTAL RIVER

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 011218-000409 113 DAYS  
 FIELD TIME 020100-00401 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR)		mR/Std. Dev.	
			+ - Std. Dev.		+ - Std. Dev.	
007	50	3.80	15.6 +- .3		12.4 +- .2	
009	6	5.40	16.6 +- .5		13.3 +- .4	
012	318	4.80	15.9 +- .2		12.7 +- .1	
013	79	3.80	16.6 +- .3		13.2 +- .3	
014	95	4.10	16.1 +- .4		12.8 +- .3	
015	89	1.80	16.7 +- .2		13.3 +- .2	
016	113	5.00	16.1 +- .2		12.8 +- .2	
018	74	8.10	15.4 +- .4		12.2 +- .3	
019	127	7.60	16.0 +- .9		12.8 +- .7	
020	150	12.9	15.3 +- .3		12.2 +- .2	
021	159	13.0	16.2 +- .4		12.9 +- .3	
022	150	20.7	15.0 +- .6		11.9 +- .5	
023	150	20.7	14.0 +- .3		11.1 +- .2	
024	150	20.7	14.7 +- .7		11.7 +- .6	
025	56	6.10	15.8 +- .0		12.6 +- .0	
026	357	5.20	16.3 +- .2		13.0 +- .2	
027	90	13.8	14.9 +- .4		11.9 +- .3	
050	CTL	TLD	11.7 +- .3		9.3 +- .3	

CRYSTAL RIVER  
FOR THE PERIOD 811018-820409 113 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	13.1 $\pm$ .2	2
11.25-33.75 (NNE)	0.0 $\pm$ 0.0	0
33.75-56.25 (NE)	12.5 $\pm$ .1	2
56.25-78.75 (ENE)	12.2 $\pm$ 0.0	1
78.75-101.25 (E)	12.8 $\pm$ .6	4
101.25-123.75 (ESE)	12.8 $\pm$ 0.0	1
123.75-146.25 (SE)	12.8 $\pm$ 0.0	1
146.25-168.75 (SSE)	12.0 $\pm$ .6	5
168.75-191.25 (S)	0.0 $\pm$ 0.0	0
191.25-213.75 (SSW)	0.0 $\pm$ 0.0	0
213.75-236.25 (SW)	0.0 $\pm$ 0.0	0
236.25-258.75 (WSW)	0.0 $\pm$ 0.0	0
258.75-281.25 (W)	0.0 $\pm$ 0.0	0
281.25-303.75 (WNW)	0.0 $\pm$ 0.0	0
303.75-326.25 (NW)	12.7 $\pm$ 0.0	1
326.25-348.75 (NNW)	0.0 $\pm$ 0.0	0

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	13.3 $\pm$ 0.0	1
2-5	12.8 $\pm$ .3	5
>5	12.3 $\pm$ .6	11

## DAVIS BESSE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820406 111 DAYS  
 FIELD TIME 820301-820331 31 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR)		mR/Std. Dev.	
			+ - Std. Dev.		+ - Std. De	
001	50	0.60	18.9 +- .8		15.3 +- .7	
002	86	0.90	20.4 +- 1.1		16.5 +- .9	
003	116	1.40	20.9 +- .7		16.9 +- .5	
004	172	0.80	21.9 +- .6		17.7 +- .5	
005	200	1.50	22.3 +- .0		18.0 +- .0	
006	226	1.00	21.4 +- .1		17.3 +- .1	
007	249	1.50	20.8 +- .0		16.8 +- .0	
008	267	1.75	21.0 +- .2		17.0 +- .2	
009	285	1.75	20.1 +- 1.2		16.3 +- 1.0	
010	306	1.50	12.2 +- .1		9.9 +- .1	
011	344	0.90	20.2 +- .1		16.3 +- .1	
012	142	4.50	21.5 +- .0		17.5 +- .0	
013	158	4.00	19.9 +- .2		16.1 +- .2	
014	180	3.75	19.0 +- .4		15.4 +- .3	
015	207	4.75	19.5 +- .5		15.8 +- .4	
016	225	4.50	20.6 +- .1		16.7 +- .1	
017	254	2.70	20.8 +- 2.3		16.9 +- 1.8	
018	269	3.00	20.7 +- 1.0		16.8 +- .8	
019	295	5.30	21.3 +- .7		17.2 +- .6	
020	25	0.50	18.9 +- 2.4		15.3 +- 2.0	

DAVIS BESSE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 011217-020331 111 DAYS  
 FIELD TIME 020301-020331 31 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev.	+- Std. De
021	132	9.70	24.1 +- .3		19.5 +- .2	
022	210	6.50	19.4 +- .6		15.7 +- .5	

DAVIS BESSE  
 FOR THE PERIOD 811217-820406 111 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 +/- 0.0	0
11.25-33.75 (NNE)	15.3 +/- 0.0	1
33.75-56.25 (NE)	15.3 +/- 0.0	1
56.25-78.75 (ENE)	0.0 +/- 0.0	0
78.75-101.25 (E)	16.5 +/- 0.0	1
101.25-123.75 (ESE)	16.9 +/- 0.0	1
123.75-146.25 (SE)	18.5 +/- 1.5	2
146.25-168.75 (SSE)	16.1 +/- 0.0	1
168.75-191.25 (S)	16.6 +/- 1.6	2
191.25-213.75 (SSW)	16.5 +/- 1.3	3
213.75-236.25 (SW)	17.0 +/- .5	2
236.25-258.75 (WSW)	16.9 +/- .0	2
258.75-281.25 (W)	16.9 +/- .2	2
281.25-303.75 (WNW)	16.7 +/- .7	2
303.75-326.25 (NW)	9.9 +/- 0.0	1
326.25-348.75 (NNW)	16.3 +/- 0.0	1

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.1 +/- 2.1	12
2-5	16.5 +/- .7	7
>5	17.5 +/- 1.9	3



## DIPLO CANYON

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811216-820416 122 DAYS  
 FIELD TIME 820100-820406 89 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR)	+/- Std. Dev.	mR/Std. Dev.	+/- Std. Dev.
001	125	1.00	31.4	+/- .4	23.2	+/- .3
002	119	4.20	28.1	+/- .9	20.8	+/- .6
003	107	6.90	27.0	+/- 1.3	19.9	+/- 1.0
004	109	10.6	27.5	+/- .7	20.3	+/- .5
005	113	14.1	27.1	+/- .4	20.0	+/- .3
006	68	9.60	26.4	+/- .8	19.5	+/- .6
007	359	11.1	22.5	+/- .2	16.6	+/- .2
008	359	6.60	22.2	+/- .5	16.4	+/- .4
009	339	4.70	21.8	+/- 1.0	16.1	+/- .7
010	323	3.50	23.5	+/- .1	17.4	+/- .1
011	332	1.30	23.2	+/- .3	17.1	+/- .2
012	37	21.4	26.1	+/- .2	19.0	+/- .2
013	37	21.4	28.1	+/- .4	20.7	+/- .3
014	37	21.4	27.7	+/- .3	20.5	+/- .2
050	CTL	TLD	17.1	+/- .2	12.6	+/- .2

DIABLO CANYON  
FOR THE PERIOD 811216-820416 122 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.5 +- .1	2
11.25-33.75 (NNE)	0.0 +- 0.0	0
33.75-56.25 (NE)	20.1 +- .8	3
56.25-78.75 (ENE)	19.5 +- 0.0	1
78.75-101.25 (E)	0.0 +- 0.0	0
101.25-123.75 (ESE)	20.2 +- .4	4
123.75-146.25 (SE)	23.2 +- 0.0	1
146.25-168.75 (SSE)	0.0 +- 0.0	0
168.75-191.25 (S)	0.0 +- 0.0	0
191.25-213.75 (SSW)	0.0 +- 0.0	0
213.75-236.25 (SW)	0.0 +- 0.0	0
236.25-258.75 (WSW)	0.0 +- 0.0	0
258.75-281.25 (W)	0.0 +- 0.0	0
281.25-303.75 (WNW)	0.0 +- 0.0	0
303.75-326.25 (NW)	0.0 +- 0.0	0
326.25-348.75 (NNW)	16.9 +- .7	3

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	20.2 +- 4.3	2
2-5	18.1 +- 2.4	3
>5	19.2 +- 1.6	9

## DRESDEN

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820407 112 DAYS  
 FIELD TIME 820124-820327 63 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R-	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
51	70	4.20	21.6 +- .5		17.3 +- .4	
52	92	3.90	19.7 +- .7		15.8 +- .5	
53	119	3.20	20.7 +- .6		16.6 +- .5	
54	134	1.30	18.2 +- .3		14.6 +- .3	
55	115	1.50	20.6 +- .3		16.5 +- .3	
56	180	1.90	20.6 +- .9		16.5 +- .7	
57	179	0.50	21.1 +- .4		17.0 +- .3	
58	166	0.70	18.4 +- .2		14.8 +- .2	
59	205	0.50	20.1 +- .9		16.2 +- .7	
60	224	0.70	25.3 +- .5		20.3 +- .4	
61	250	0.90	18.5 +- .4		14.9 +- .3	
62	263	1.60	21.0 +- .4		16.9 +- .3	
63	180	4.00	19.7 +- .7		15.8 +- .3	
67	189	7.40	20.7 +- .6		16.7 +- .5	
68	203	4.10	18.9 +- .2		15.2 +- .1	
69	231	3.80	20.5 +- .0		16.5 +- .0	
70	244	6.40	20.1 +- .0		16.1 +- .0	
71	258	8.60	21.1 +- .2		16.9 +- .1	
72	269	4.40	17.9 +- .2		14.4 +- .2	
73	295	3.30	20.9 +- .0		16.8 +- .0	

## DRESDEN

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820407 112 DAYS  
 FIELD TIME 820124-820327 63 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.C +- Std. Dev.	
74	311	3.90	19.0 +- 1.2		15.2 +- 1.0	
75	340	4.70	21.9 +- .6		17.6 +- .5	
76	7	4.40	19.8 +- .3		15.9 +- .2	
77	1	2.00	22.2 +- .2		17.8 +- .2	
79	318	1.40	21.2 +- .1		17.0 +- .1	
81	30	1.50	21.0 +- .3		16.9 +- .2	
82	48	1.90	22.0 +- .0		17.7 +- .0	
83	76	1.40	20.7 +- .2		16.6 +- .2	
84	90	1.40	20.6 +- .7		16.6 +- .6	
85	26	4.50	20.4 +- .0		16.4 +- .0	
86	42	3.60	19.7 +- .0		15.8 +- .0	
88	274	23.9	20.9 +- .3		16.8 +- .2	
89	274	23.9	21.1 +- .5		17.0 +- .4	
90	275	24.4	20.9 +- .3		16.8 +- .2	

DRESDEN  
FOR THE PERIOD 811217-820407 112 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.8 $\pm$ 1.4	2
11.25-33.75 (NNE)	16.6 $\pm$ .3	2
33.75-56.25 (NE)	16.7 $\pm$ 1.4	2
56.25-78.75 (ENE)	17.0 $\pm$ .5	2
78.75-101.25 (E)	16.2 $\pm$ .5	2
101.25-123.75 (ESE)	16.6 $\pm$ .1	2
123.75-146.25 (SE)	14.6 $\pm$ 0.0	1
146.25-168.75 (SSE)	14.8 $\pm$ 0.0	1
168.75-191.25 (S)	16.5 $\pm$ .5	4
191.25-213.75 (SSW)	15.7 $\pm$ .7	2
213.75-236.25 (SW)	18.4 $\pm$ 2.7	2
236.25-258.75 (WSW)	16.0 $\pm$ 1.0	3
258.75-281.25 (W)	16.4 $\pm$ 1.1	5
281.25-303.75 (WNW)	16.8 $\pm$ 0.0	1
303.75-326.25 (NW)	16.1 $\pm$ 1.3	2
326.25-348.75 (NNW)	17.6 $\pm$ 0.0	1

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.7 $\pm$ 1.4	15
2-5	16.1 $\pm$ .9	13
>5	16.7 $\pm$ .3	6

DUANE ARNOLD

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811217-820407 112 DAYS  
FIELD TIME 820108-820331 83 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev	
002	170	6.20	22.3 +- .4		17.9 +- .3	
003	180	3.50	20.2 +- .3		16.2 +- .3	
004	216	2.90	14.2 +- .0		11.4 +- .0	
005	201	2.50	11.2 +- 1.2		9.0 +- 1.0	
006	213	1.00	19.6 +- 1.1		15.8 +- .9	
007	248	1.00	22.0 +- .5		17.7 +- .4	
008	279	1.00	20.0 +- .4		16.0 +- .3	
009	298	1.00	16.1 +- .5		12.9 +- .4	
010	320	1.50	20.0 +- .6		16.1 +- .5	
011	343	1.00	19.0 +- .0		15.3 +- .0	
012	359	1.20	19.6 +- .2		15.8 +- .2	
013	237	0.50	18.9 +- .1		15.2 +- .0	
014	259	3.90	18.8 +- .2		15.1 +- .2	
015	272	5.00	18.4 +- .6		14.8 +- .5	
016	285	5.00	20.0 +- .7		16.1 +- .6	
017	308	4.50	19.3 +- .4		15.5 +- .3	
018	340	4.50	17.6 +- .3		14.2 +- .3	
019	291	15.0	19.0 +- .1		15.3 +- .1	
020	291	15.0	18.4 +- .2		14.7 +- .1	
021	291	15.0	17.9 +- .2		14.4 +- .2	

DUARNE ARNOLD

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811217-820407 112 DAYS  
FIELD TIME 820108-820331 83 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RAT.	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
023	7	2.90	17.0 +- .6		13.7 +- .5	
024	28	3.00	19.9 +- .2		16.0 +- .2	
025	39	3.50	19.4 +- .2		15.6 +- .2	
026	64	3.80	17.5 +- .7		14.1 +- .6	
027	50	1.90	17.2 +- .9		13.9 +- .8	
028	72	2.30	19.5 +- .5		15.7 +- .4	
029	91	3.00	17.6 +- .3		14.1 +- .2	
030	93	1.80	20.0 +- .6		16.0 +- .5	
031	113	2.00	22.1 +- .2		17.8 +- .2	
032	141	1.60	17.7 +- .2		14.2 +- .1	
033	153	1.50	14.3 +- .0		11.5 +- .0	
035	153	4.20	17.2 +- .3		13.8 +- .2	
036	135	4.10	18.2 +- .9		14.6 +- .7	
037	111	4.60	20.3 +- .2		16.3 +- .2	
038	123	5.10	19.8 +- .3		15.9 +- .2	
039	132	7.00	18.3 +- 1.1		14.7 +- .8	
040	139	7.60	18.4 +- .8		14.8 +- .7	

DUANE ARNOLD  
 FOR THE PERIOD 811217-820407 112 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	14.7 $\pm$ 1.5	2
11.25-33.75 (NNE)	16.0 $\pm$ 0.0	1
33.75-56.25 (NE)	14.7 $\pm$ 1.2	2
56.25-78.75 (ENE)	14.9 $\pm$ 1.1	2
78.75-101.25 (E)	15.1 $\pm$ 1.3	2
101.25-123.75 (ESE)	16.7 $\pm$ 1.0	3
123.75-146.25 (SE)	14.6 $\pm$ .3	4
146.25-168.75 (SSE)	12.7 $\pm$ 1.7	2
168.75-191.25 (S)	17.0 $\pm$ 1.2	2
191.25-213.75 (SSW)	12.4 $\pm$ 4.8	2
213.75-236.25 (SW)	11.4 $\pm$ 0.0	1
236.25-258.75 (WSW)	16.5 $\pm$ 1.8	2
258.75-281.25 (W)	15.3 $\pm$ .7	3
281.25-303.75 (WNW)	14.7 $\pm$ 1.2	5
303.75-326.25 (NW)	15.8 $\pm$ .4	2
326.25-348.75 (NNW)	14.7 $\pm$ .8	2

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	15.2 $\pm$ 1.8	13
2-5	14.5 $\pm$ 1.9	17
>5	15.4 $\pm$ 1.2	7



FARLEY

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820419 124 DAYS  
 FIELD TIME 820105-820413 99 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RAT	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR)	+ - Std. Dev.	mR/Std.Qtr.	+ - Std. Dev.
001	268	14.8	24.5	+ - 1.1	17.8	+ - .8
002	252	7.80	21.9	+ - .0	15.9	+ - .0
003	217	6.10	23.0	+ - .4	16.7	+ - .3
005	170	5.10	23.4	+ - .3	17.0	+ - .2
006	197	4.50	22.0	+ - .9	15.9	+ - .7
007	191	2.40	25.2	+ - .5	18.3	+ - .3
008	200	1.80	23.4	+ - .5	17.0	+ - .4
009	220	1.20	20.6	+ - .7	14.9	+ - .5
010	254	0.90	21.7	+ - 1.3	15.8	+ - .9
011	300	0.90	21.8	+ - .1	15.8	+ - .1
012	319	1.10	25.2	+ - 1.0	18.3	+ - .7
013	338	1.30	21.3	+ - 2.0	15.5	+ - 1.4
014	256	1.20	21.2	+ - .3	16.1	+ - .2
015	16	1.30	28.9	+ - .4	21.0	+ - .3
016	264	1.60	24.0	+ - 2.0	17.4	+ - 1.4
017	253	3.50	24.8	+ - .4	18.0	+ - .3
018	233	3.20	22.7	+ - .0	16.5	+ - .0
019	267	4.50	23.6	+ - .2	17.1	+ - .1
020	295	3.80	27.3	+ - .0	19.8	+ - .0
022	332	4.30	22.2	+ - .7	16.1	+ - .5

FARLEY

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820419 124 DAYS  
 FIELD TIME 820105-820413 99 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATE
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std. Dev. +- Std. Dev.
023	251	4.80	21.1 +- .2	15.3 +- .1
024	32	5.30	22.8 +- .6	16.6 +- .4
025	54	6.20	21.0 +- 1.0	15.2 +- .7
026	64	5.50	21.3 +- .3	15.5 +- .2
027	88	4.70	21.3 +- .4	15.4 +- .3
028	124	5.10	22.0 +- .7	16.0 +- .5
029	153	4.10	22.0 +- 0.0	16.0 +- 0.0
030	142	3.60	20.8 +- .3	15.1 +- .2
031	130	3.00	20.3 +- .7	14.7 +- .5
032	110	2.80	19.9 +- .2	14.5 +- .2
033	78	2.60	22.0 +- .8	16.0 +- .6
034	58	2.20	19.2 +- .8	14.0 +- .6
035	34	2.40	26.4 +- 1.2	19.1 +- .9
036	19	2.70	25.9 +- .1	18.8 +- .1
037	284	10.0	24.2 +- .8	17.6 +- .6
038	289	15.5	19.8 +- .8	14.4 +- .6
039	293	15.5	22.8 +- .6	16.5 +- .5

FARLEY  
 FOR THE PERIOD 811217-820419 124 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 $\pm$ 0.0	0
11.25-33.75 (NNE)	18.8 $\pm$ 2.2	3
33.75-56.25 (NE)	17.2 $\pm$ 2.7	2
56.25-78.75 (ENE)	15.1 $\pm$ 1.1	3
78.75-101.25 (E)	15.4 $\pm$ 0.0	1
101.25-123.75 (ESE)	14.5 $\pm$ 0.0	1
123.75-146.25 (SE)	15.3 $\pm$ .7	3
146.25-168.75 (SSE)	16.0 $\pm$ 0.0	1
168.75-191.25 (S)	17.5 $\pm$ .9	2
191.25-213.75 (SSW)	16.4 $\pm$ .7	2
213.75-236.25 (SW)	16.0 $\pm$ .9	3
236.25-258.75 (WSW)	16.2 $\pm$ 1.0	5
258.75-281.25 (W)	17.4 $\pm$ .3	3
281.25-303.75 (WNW)	16.8 $\pm$ 2.0	5
303.75-326.25 (NW)	18.3 $\pm$ 0.0	1
326.25-348.75 (NNW)	15.8 $\pm$ .4	2

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.9 $\pm$ 1.9	9
2-5	16.5 $\pm$ 1.7	17
>5	16.3 $\pm$ 1.0	11

FITZPATRICK/NINE MILE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820423 124 DAYS  
 FIELD TIME 820105-820413 99 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	230	6.90	19.9 +- .5		14.4 +- .3	
002	184	14.0	21.0 +- .2		15.2 +- .1	
003	122	8.40	20.7 +- .4		15.0 +- .3	
005	91	6.80	19.4 +- .6		14.1 +- .4	
006	112	4.30	21.1 +- .8		15.3 +- .6	
007	138	4.30	18.9 +- .4		13.7 +- .3	
008	152	3.60	19.6 +- .3		14.2 +- .2	
009	183	3.90	20.7 +- .6		15.0 +- .4	
010	205	4.50	22.0 +- 1.0		16.0 +- .7	
011	220	4.40	21.2 +- .8		15.4 +- .6	
012	230	6.10	22.1 +- 1.0		16.1 +- .7	
013	245	1.80	22.6 +- .2		16.4 +- .1	
014	223	1.80	23.2 +- .2		16.8 +- .1	
015	204	2.00	22.8 +- 1.0		16.5 +- .7	
016	181	1.80	22.4 +- .8		16.3 +- .6	
017	157	1.90	22.7 +- 1.2		16.5 +- .9	
018	137	1.60	21.1 +- .8		15.3 +- .6	
019	115	1.20	21.4 +- .6		15.6 +- .4	
020	92	1.10	22.1 +- .3		16.0 +- .2	
021	229	19.7	21.5 +- .7		15.6 +- .5	

FITZPATRICK/NINE MILE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820423 124 DAYS  
 FIELD TIME 820105-820413 99 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
022	229	19.7	21.9 +- .1		15.9 +- .1	
023	229	19.7	21.6 +- .2		15.7 +- .2	
024	196	8.00	18.7 +- .2		13.6 +- .2	
025	168	7.20	19.3 +- .4		14.0 +- .3	
026	152	0.60	23.9 +- .7		17.3 +- .5	
050	CTL	TLD	15.1 +- .4		10.9 +- .3	

FITZPATRICK/NINE MILE  
FOR THE PERIOD 811221-820423 124 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 $\pm$ 0.0	0
11.25-33.75 (NNE)	0.0 $\pm$ 0.0	0
33.75-56.25 (NE)	0.0 $\pm$ 0.0	0
56.25-78.75 (ENE)	0.0 $\pm$ 0.0	0
78.75-101.25 (E)	15.1 $\pm$ 1.4	2
101.25-123.75 (ESE)	15.3 $\pm$ .3	3
123.75-146.25 (SE)	14.5 $\pm$ 1.1	2
146.25-168.75 (SSE)	15.5 $\pm$ 1.7	4
168.75-191.25 (S)	15.5 $\pm$ .7	3
191.25-213.75 (SSW)	15.4 $\pm$ 1.6	3
213.75-236.25 (SW)	15.7 $\pm$ .7	7
236.25-258.75 (WSW)	16.4 $\pm$ 0.0	1
258.75-281.25 (W)	0.0 $\pm$ 0.0	0
281.25-303.75 (WNW)	0.0 $\pm$ 0.0	0
303.75-326.25 (NW)	0.0 $\pm$ 0.0	0
326.25-348.75 (NNW)	0.0 $\pm$ 0.0	0

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.3 $\pm$ .6	9
2-5	14.9 $\pm$ .8	6
>5	15.0 $\pm$ .9	10

FT. CALHOUN

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811216-820407 113 DAYS  
 FIELD TIME 811231-820402 93 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev	
100	OTL	TLD	25.0 +- .4		19.9 +- .3	
52	351	4.60	23.8 +- 1.0		19.0 +- .8	
53	30	2.50	24.3 +- .6		19.3 +- .5	
54	27	4.60	22.2 +- .1		17.6 +- .1	
56	37	3.90	24.1 +- .8		19.2 +- .7	
57	76	2.30	24.2 +- .7		19.3 +- .6	
58	59	5.20	23.1 +- .6		18.4 +- .5	
59	100	2.30	21.5 +- .3		17.1 +- .2	
60	88	5.60	23.3 +- 1.4		18.6 +- 1.1	
62	105	5.70	22.2 +- .1		17.7 +- .1	
63	145	1.90	23.7 +- .4		18.8 +- .3	
64	128	5.50	23.6 +- .1		18.8 +- .1	
65	157	1.90	23.0 +- .2		18.3 +- .2	
66	150	4.90	23.7 +- .4		18.9 +- .3	
67	173	0.50	24.0 +- .2		19.1 +- .2	
68	173	5.30	25.4 +- .4		20.3 +- .3	
69	212	2.50	23.5 +- .3		18.7 +- .2	
70	204	5.30	24.9 +- .2		19.8 +- .2	
71	233	2.00	25.1 +- .9		20.0 +- .7	
72	224	4.60	24.2 +- .1		19.3 +- .1	

FT. CALHOUN

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811216-820407 113 DAYS  
 FIELD TIME 811231-820402 93 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (m.)	EXPOSURE (mR)	+- Std. Dev.	mR/Std. Dtr.	+- Std. Dev.
73	239	0.60	23.7	+- .5	18.9	+- .4
74	243	6.90	23.7	+- 1.2	18.9	+- .9
75	269	3.30	25.3	+- .1	20.2	+- .1
76	262	5.90	24.1	+- .3	19.2	+- .3
77	288	2.80	23.2	+- .5	18.5	+- .4
78	292	5.00	22.0	+- .2	17.5	+- .1
79	311	2.40	22.6	+- 1.1	18.0	+- .9
80	310	5.50	23.8	+- .7	19.0	+- .6
82	338	5.30	21.6	+- .1	17.2	+- .1
83	182	0.50	23.1	+- 1.1	18.4	+- .9
85	127	2.20	22.0	+- .8	17.5	+- .6
89	150	5.00	23.9	+- .9	19.0	+- .8
90	73	9.50	23.5	+- 1.1	18.7	+- .9
93	29	8.00	22.4	+- .1	17.8	+- .1
94	65	3.50	22.3	+- .8	17.7	+- .7
95	182	4.20	23.9	+- .6	19.0	+- .5
97	298	4.50	22.5	+- .1	17.9	+- .0
98	13	13.5	22.0	+- .5	17.5	+- .4
99	207	18.5	23.4	+- .9	18.6	+- .7



FT. CALHOUN  
 FOR THE PERIOD 811216-820407 113 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	19.0 $\pm$ 0.0	1
11.25-33.75 (NNE)	18.1 $\pm$ .8	4
33.75-56.25 (NE)	19.2 $\pm$ 0.0	1
56.25-78.75 (ENE)	18.5 $\pm$ .6	4
78.75-101.25 (E)	17.8 $\pm$ 1.1	2
101.25-123.75 (ESE)	17.7 $\pm$ 0.0	1
123.75-146.25 (SE)	18.4 $\pm$ .7	3
146.25-168.75 (SSE)	18.7 $\pm$ .4	3
168.75-191.25 (S)	19.2 $\pm$ .8	4
191.25-213.75 (SSW)	19.1 $\pm$ .7	3
213.75-236.25 (SW)	19.6 $\pm$ .5	2
236.25-258.75 (WSW)	18.9 $\pm$ .0	2
258.75-281.25 (W)	19.7 $\pm$ .7	2
281.25-303.75 (WNW)	18.0 $\pm$ .5	3
303.75-326.25 (NW)	18.5 $\pm$ .7	2
326.25-348.75 (NNW)	17.2 $\pm$ 0.0	1

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	18.9 $\pm$ .6	6
2-5	18.5 $\pm$ .8	18
>5	18.6 $\pm$ .9	14

FT. ST. VRAIN

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820412 117 DAYS  
 FIELD TIME 811230-820406 98 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATE
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std.Qtr. +- Std. Dev.
001	8	0.80	37.7 +- .6	29.0 +- .5
002	2	3.25	37.6 +- 1.1	28.9 +- .8
004	17	5.40	37.4 +- .2	28.7 +- .2
005	54	2.10	36.3 +- .1	27.9 +- .1
006	48	4.75	36.1 +- .5	27.7 +- .4
007	76	2.60	40.2 +- .9	30.9 +- .7
008	58	4.20	37.0 +- 1.4	28.5 +- 1.0
009	100	1.50	39.9 +- .4	30.7 +- .3
011	118	1.60	41.1 +- .0	31.6 +- .0
013	143	1.60	32.3 +- .7	24.8 +- .5
015	168	2.30	35.3 +- .5	27.1 +- .3
016	148	4.60	37.0 +- .6	28.4 +- .5
017	182	0.80	37.4 +- .1	28.7 +- .1
018	175	4.80	36.4 +- .5	28.0 +- .4
019	210	0.90	38.8 +- .6	29.8 +- .4
020	200	2.90	39.6 +- .2	30.5 +- .1
021	234	1.30	38.3 +- 1.9	29.5 +- 1.4
022	216	3.30	35.7 +- 1.1	27.4 +- .8
023	254	2.50	35.8 +- .4	27.5 +- .3
024	244	3.80	35.3 +- .7	27.2 +- .5

FT. ST. VRAIN

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820412 117 DAYS  
 FIELD TIME 811230-820406 98 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
025	278	1.50	33.8 +- 1.7		26.0 +- 1.3	
026	263	5.40	35.1 +- .6		27.0 +- .5	
027	297	1.70	36.3 +- .3		27.9 +- .2	
028	284	5.60	36.2 +- 1.0		27.9 +- .8	
029	317	0.90	35.7 +- 1.5		27.4 +- 1.2	
030	305	4.20	35.3 +- 1.1		27.2 +- .9	
031	338	1.40	35.5 +- .6		27.3 +- .5	
032	330	5.00	33.2 +- .4		25.5 +- .3	
033	267	6.50	39.5 +- 1.0		30.4 +- .8	
035	270	0.10	34.5 +- 1.4		26.5 +- 1.1	
038	345	6.70	39.7 +- .8		30.5 +- .6	
039	10	6.00	35.6 +- .5		27.4 +- .4	
040	63	6.00	33.9 +- 1.6		26.1 +- 1.2	
041	165	12.0	38.0 +- .0		29.2 +- .0	
042	248	13.0	43.6 +- .4		33.5 +- .3	
045	198	10.5	38.2 +- .8		29.4 +- .6	
046	39	16.0	33.6 +- .8		25.8 +- .6	
048	171	10.0	37.5 +- 1.0		28.8 +- .8	
049	360	0.50	38.0 +- .4		29.2 +- .3	

FT. ST. VRAIN  
 FOR THE PERIOD 811217-820412 117 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	28.7 +- .8	4
11.25-33.75 (NNE)	28.7 +- 0.0	1
33.75-56.25 (NE)	27.2 +- 1.1	3
56.25-78.75 (ENE)	28.5 +- 2.4	3
78.75-101.25 (E)	30.7 +- 0.0	1
101.25-123.75 (ESE)	31.6 +- 0.0	1
123.75-146.25 (SE)	24.8 +- 0.0	1
146.25-168.75 (SSE)	28.3 +- 1.0	3
168.75-191.25 (S)	28.5 +- .4	3
191.25-213.75 (SSW)	29.8 +- .6	3
213.75-236.25 (SW)	28.5 +- 1.4	2
236.25-258.75 (WSW)	29.4 +- 3.6	3
258.75-281.25 (W)	27.5 +- 2.0	4
281.25-303.75 (WNW)	27.9 +- .0	2
303.75-326.25 (NW)	27.3 +- .2	2
326.25-348.75 (NNW)	27.8 +- 2.5	3

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	28.4 +- 1.9	13
2-5	28.1 +- 1.4	14
>5	28.7 +- 2.1	12

## GINNA

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820128 38 DAYS  
 FIELD TIME 820104-820127 24 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	95	1.70	7.4 +- .3		17.5 +- .8	
002	108	1.10	7.8 +- .3		18.5 +- .7	
003	142	1.70	7.4 +- .1		17.6 +- .1	
004	154	1.50	8.4 +- .4		19.8 +- .9	
005	174	1.40	7.6 +- .3		18.1 +- .8	
006	212	1.60	7.3 +- .3		17.2 +- .8	
007	244	0.90	6.8 +- .3		16.1 +- .7	
008	230	0.60	8.2 +- .3		19.4 +- .7	
010	211	1.50	7.0 +- .2		16.5 +- .4	
011	264	4.60	7.3 +- .0		17.3 +- .1	
012	245	3.80	7.9 +- .1		18.7 +- .2	
013	235	4.20	5.6 +- .0		13.3 +- .0	
014	200	3.80	7.4 +- .3		17.5 +- .7	
015	178	3.40	7.3 +- .1		17.2 +- .2	
016	160	3.70	7.7 +- .2		18.2 +- .4	
017	134	3.80	7.2 +- .3		17.0 +- .6	
018	115	4.30	8.1 +- .2		19.2 +- .4	
019	88	4.00	7.8 +- .4		18.4 +- .9	
020	90	6.20	7.0 +- .2		16.5 +- .6	
021	123	7.60	7.1 +- .3		16.8 +- .6	

## GINNA

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820128 38 DAYS  
 FIELD TIME 820104-820127 24 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RATE mR/Std. Dev.	
	AZIMUTH/DIST (deg.)	(mi.)	+ -	Std. Dev.	+ -	Std. Dev.
022	105	12.5	7.4	+ - .6	17.5	+ - 1.4
023	151	11.1	7.9	+ - .7	18.7	+ - 1.6
024	212	13.9	7.7	+ - .3	18.1	+ - .6
026	242	16.5	7.8	+ - .3	18.5	+ - .8
027	254	14.5	7.0	+ - .3	16.6	+ - .8
028	234	6.90	7.6	+ - .1	17.9	+ - .3
029	185	0.30	7.7	+ - .1	18.2	+ - .3
030	264	14.8	6.4	+ - .0	15.1	+ - .0

THERE ARE TWO SETS OF DOSIMETERS FOR GINNA DURING THE FIRST QUARTER OF 1982. THE DOSIMETERS WERE EXCHANGED ON JANUARY 27, 1982 TO EVALUATE THE EXPOSURE WHICH MAY HAVE RESULTED FROM THE INCIDENT WHICH TOOK PLACE ON JANUARY 25, 1982. NO STATISTICALLY SIGNIFICANT EXPOSURE ABOVE NATURAL BACKGROUND WAS OBSERVED.

GINNA  
 FOR THE PERIOD 811222-820128 38 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 +/- 0.0	0
11.25-33.75 (NNE)	0.0 +/- 0.0	0
33.75-56.25 (NE)	0.0 +/- 0.0	0
56.25-78.75 (ENE)	0.0 +/- 0.0	0
78.75-101.25 (E)	17.5 +/- .9	3
101.25-123.75 (ESE)	18.0 +/- 1.1	4
123.75-146.25 (SE)	17.3 +/- .4	2
146.25-168.75 (SSE)	18.9 +/- .9	3
168.75-191.25 (S)	17.9 +/- .5	3
191.25-213.75 (SSW)	17.6 +/- .5	3
213.75-236.25 (SW)	16.9 +/- 3.2	3
236.25-258.75 (WSW)	17.4 +/- 1.3	4
258.75-281.25 (W)	16.3 +/- 1.1	3
281.25-303.75 (WNW)	0.0 +/- 0.0	0
303.75-326.25 (NW)	0.0 +/- 0.0	0
326.25-348.75 (NNW)	0.0 +/- 0.0	0

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	17.9 +/- 1.2	10
2-5	17.4 +/- 1.7	9
>5	17.3 +/- 1.2	9

## GINNA

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 820125-820423 89 DAYS  
 FIELD TIME 820127-820414 78 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
51	95	1.70	15.1 +- 1.1		15.3 +- 1.1	
52	108	1.10	14.2 +- 1.1		14.4 +- 1.1	
53	142	1.70	11.7 +- .1		11.8 +- .1	
54	154	1.50	16.5 +- .6		16.6 +- .6	
56	212	1.60	13.2 +- .4		13.3 +- .4	
57	244	0.90	12.3 +- .7		12.4 +- .7	
58	230	0.60	14.2 +- .2		14.4 +- .2	
60	266	1.50	12.2 +- .3		12.3 +- .3	
61	264	4.60	12.7 +- .7		12.8 +- .7	
62	245	3.80	12.9 +- .2		13.0 +- .2	
63	235	4.20	13.2 +- .2		13.3 +- .2	
64	200	3.80	12.6 +- .2		12.7 +- .2	
65	178	3.40	12.6 +- .3		12.7 +- .3	
66	160	3.70	12.9 +- .4		13.0 +- .4	
67	134	3.80	13.5 +- .2		13.7 +- .2	
68	115	4.30	13.2 +- .1		13.3 +- .1	
69	88	4.00	13.8 +- .3		13.9 +- .3	
70	90	6.20	15.0 +- .5		15.2 +- .5	
71	123	7.60	16.6 +- 0.0		16.8 +- 0.0	
72	105	12.5	15.1 +- .2		15.2 +- .2	



GINNA

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 820125-820423 89 DAYS  
FIELD TIME 820127-820414 78 DAYS

NRC STATION	LOCATION AZIMUTH/DIST (deg.) (mi.)		INTEGRATED EXPOSURE(mR) +- Std. Dev.	EXPOSURE RATE mR/Std.Qtr. +- Std. Dev.
73	151	11.1	15.8 +- .4	15.2 +- .4
74	212	13.9	16.3 +- .4	16.4 +- .4
76	242	16.5	16.7 +- .7	16.8 +- .7
78	234	6.90	13.7 +- 1.4	13.8 +- 1.4
79	185	0.30	12.5 +- .3	12.6 +- .3

GINNA  
 FOR THE PERIOD 820125-820423 89 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 +/- 0.0	0
11.25-33.75 (NNE)	0.0 +/- 0.0	0
33.75-56.25 (NE)	0.0 +/- 0.0	0
56.25-78.75 (ENE)	0.0 +/- 0.0	0
78.75-101.25 (E)	14.8 +/- .8	3
101.25-123.75 (ESE)	14.9 +/- 1.5	4
123.75-146.25 (SE)	12.7 +/- 1.3	2
146.25-168.75 (SSE)	14.9 +/- 1.8	3
168.75-191.25 (S)	12.7 +/- .1	2
191.25-213.75 (SSW)	14.2 +/- 2.0	3
213.75-236.25 (SW)	13.8 +/- .5	3
236.25-258.75 (WSW)	14.1 +/- 2.4	3
258.75-281.25 (W)	12.6 +/- .4	2
281.25-303.75 (WNW)	0.0 +/- 0.0	0
303.75-326.25 (NW)	0.0 +/- 0.0	0
326.25-348.75 (NNW)	0.0 +/- 0.0	0

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	13.7 +/- 1.6	9
2-5	13.2 +/- .4	9
>5	15.6 +/- 1.1	7

## GRAND GULF

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820407 107 DAYS  
 FIELD TIME 820105-820330 85 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RATE mR/Std.Qtr.	
	AZIMUTH/ (deg.)	DIST (mi.)	+ -	Std. Dev.	+ -	Std. Dev.
083	206	4.80	19.1	+ - .5	16.1	+ - .4
100	CTL	TLD	7.9	+ - .5	6.6	+ - .4
52	37	1.57	16.8	+ - .7	14.1	+ - .6
53	20	1.52	19.5	+ - .7	16.4	+ - .6
54	51	2.28	17.2	+ - .1	14.5	+ - .1
55	68	2.66	18.7	+ - .4	15.7	+ - .3
56	47	4.09	17.7	+ - .5	14.8	+ - .4
57	68	4.89	19.1	+ - .4	16.1	+ - .3
58	91	3.23	19.8	+ - .1	16.6	+ - .0
59	81	1.04	17.7	+ - .4	14.9	+ - .3
60	109	0.63	20.0	+ - .2	16.8	+ - .1
61	139	0.76	18.1	+ - .4	15.2	+ - .3
62	185	1.56	18.3	+ - .5	15.4	+ - .4
63	207	1.88	19.8	+ - .9	16.6	+ - .8
64	247	1.50	18.1	+ - .3	15.2	+ - .3
65	130	4.23	17.6	+ - .9	14.8	+ - .8
66	122	4.80	18.7	+ - .5	15.7	+ - .4
67	135	5.32	17.9	+ - .5	15.0	+ - .4
68	147	4.30	16.5	+ - .5	13.8	+ - .4
69	224	6.80	20.2	+ - .1	16.9	+ - .0

## GRAND GULF

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811222-820407 107 DAYS  
FIELD TIME 820105-820330 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
70	172	3.60	15.9 +- .6		13.3 +- .5	
71	291	1.3	17.2 +- .2		14.4 +- .1	
73	310	7.90	17.2 +- .5		14.5 +- .4	
74	281	7.00	16.8 +- .1		14.1 +- .1	
75	291	4.80	18.5 +- .3		15.6 +- .3	
77	239	12.9	16.9 +- .3		14.2 +- .3	
79	90	0.90	17.8 +- .3		14.9 +- .2	
80	67	5.10	14.4 +- .2		12.1 +- .2	
81	67	5.10	14.6 +- .1		12.3 +- .1	
82	67	5.10	15.3 +- .5		12.8 +- .4	

GRAND GULF  
FOR THE PERIOD 811222-820407 107 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	14.1 $\pm$ 0.0	1
11.25-33.75 (NNE)	16.4 $\pm$ 0.0	1
33.75-56.25 (NE)	14.7 $\pm$ .3	2
56.25-78.75 (ENE)	13.8 $\pm$ 1.9	5
78.75-101.25 (E)	15.5 $\pm$ 1.0	3
101.25-123.75 (ESE)	16.2 $\pm$ .8	2
123.75-146.25 (SE)	15.0 $\pm$ .2	3
146.25-168.75 (SSE)	13.8 $\pm$ 0.0	1
168.75-191.25 (S)	14.4 $\pm$ 1.5	2
191.25-213.75 (SSW)	16.3 $\pm$ .4	2
213.75-236.25 (SW)	16.9 $\pm$ 0.0	1
236.25-258.75 (WSW)	14.7 $\pm$ .7	2
258.75-281.25 (W)	14.1 $\pm$ 0.0	1
281.25-303.75 (WNW)	15.0 $\pm$ .8	2
303.75-326.25 (NW)	14.5 $\pm$ 0.0	1
326.25-348.75 (NNW)	0.0 $\pm$ 0.0	0

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	15.5 $\pm$ .9	9
2-5	15.2 $\pm$ 1.0	11
>5	14.0 $\pm$ 1.5	9

## HADDAM NECK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820406 107 DAYS  
 FIELD TIME 820106-820401 86 DAYS

HRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
002	17	2.60	18.3 +- .7		15.4 +- .6	
004	67	2.30	16.3 +- .5		13.7 +- .4	
005	93	1.60	15.1 +- .1		12.7 +- .1	
006	115	2.30	14.8 +- .2		12.5 +- .2	
007	143	1.90	15.0 +- .3		12.7 +- .2	
008	165	0.90	15.6 +- .3		13.1 +- .3	
009	174	1.30	16.2 +- .1		13.6 +- .0	
010	195	0.70	15.7 +- .1		13.2 +- .1	
012	241	0.80	15.2 +- .3		12.8 +- .2	
013	263	0.80	14.9 +- .1		12.5 +- .1	
014	290	1.50	16.3 +- .0		13.7 +- .0	
015	311	1.50	14.5 +- .3		12.2 +- .3	
016	341	1.30	15.2 +- .3		12.8 +- .2	
017	360	2.30	17.7 +- .3		14.9 +- .2	
018	222	2.50	15.1 +- .6		12.7 +- .5	
019	269	3.00	14.4 +- .6		12.1 +- .5	
020	66	3.20	15.6 +- .1		13.1 +- .1	
021	91	2.80	16.8 +- .7		14.1 +- .6	
022	112	3.20	15.5 +- .1		13.0 +- .1	
023	137	2.90	14.7 +- .0		12.4 +- .0	

## HADDAM NECK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820406 107 DAYS  
 FIELD TIME 820106-820401 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
024	155	7.10	19.1 +- .4		16.1 +- .3	
025	175	5.70	14.4 +- .2		12.1 +- .1	
026	196	2.50	14.3 +- .1		12.0 +- .1	
027	225	1.10	15.7 +- .1		13.2 +- .1	
028	250	3.50	15.0 +- .0		12.7 +- .0	
029	340	20.0	25.1 +- .6		21.1 +- .5	
030	286	3.20	14.6 +- .1		12.3 +- .1	
031	322	2.70	14.9 +- .2		12.5 +- .1	
032	327	2.90	18.0 +- .6		15.1 +- .5	
033	359	6.40	19.8 +- .8		16.6 +- .6	
035	54	10.7	15.0 +- .0		12.6 +- .0	
036	72	8.80	17.5 +- .2		14.7 +- .2	
037	149	6.80	14.8 +- .1		12.4 +- .0	
038	158	5.90	14.5 +- .7		12.2 +- .5	
039	267	8.80	14.4 +- .5		12.1 +- .4	
040	303	9.10	16.5 +- .1		13.9 +- .1	
041	313	9.60	16.1 +- .2		13.5 +- .1	
042	320	12.8	15.4 +- .2		13.0 +- .2	
043	324	18.4	14.1 +- .4		11.8 +- .4	
044	328	14.8	15.9 +- .5		13.4 +- .5	
045	343	18.0	17.0 +- .4		14.3 +- .3	

HADDAM NECK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820406 107 DAYS  
 FIELD TIME 820106-820401 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
046	144	4.80	15.1 +- .5		12.7 +- .4	
047	330	20.0	15.7 +- .2		13.2 +- .2	
048	330	20.0	18.2 +- .4		15.3 +- .3	
049	340	20.0	16.2 +- .2		13.6 +- .1	
050	CTL	TLD	7.2 +- .2		6.1 +- .1	



HADDAM NECK  
 FOR THE PERIOD 811221-820406 107 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	12.4 $\pm$ 5.9	3
11.25-33.75 (NNE)	15.4 $\pm$ 0.0	1
33.75-56.25 (NE)	12.6 $\pm$ 0.0	1
56.25-78.75 (ENE)	13.8 $\pm$ .8	3
78.75-101.25 (E)	13.4 $\pm$ 1.0	2
101.25-123.75 (ESE)	12.8 $\pm$ .4	2
123.75-146.25 (SE)	12.6 $\pm$ .2	3
146.25-168.75 (SSE)	13.5 $\pm$ 1.0	4
168.75-191.25 (S)	12.9 $\pm$ 1.0	2
191.25-213.75 (SSW)	12.6 $\pm$ .8	2
213.75-236.25 (SW)	13.0 $\pm$ .4	2
236.25-258.75 (WSW)	12.7 $\pm$ .1	2
258.75-281.25 (W)	12.2 $\pm$ .2	3
281.25-303.75 (WNW)	13.3 $\pm$ .9	3
303.75-326.25 (NW)	12.6 $\pm$ .7	5
326.25-348.75 (NNW)	14.9 $\pm$ 2.7	8

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	12.3 $\pm$ 2.1	12
2-5	13.2 $\pm$ 1.1	16
>5	14.0 $\pm$ 2.2	18

## HATCH

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811223-820416 115 DAYS  
 FIELD TIME 820203-820407 64 DAYS

IRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Qtr. +- Std. Dev.	
100	CTL	TLD	4.7 +- .0		3.7 +- .0	
51	342	23.0	17.1 +- .6		13.3 +- .4	
52	359	7.70	15.9 +- 1.4		12.4 +- 1.1	
53	354	4.50	14.0 +- .2		11.0 +- .2	
54	336	2.90	20.0 +- .6		15.6 +- .4	
55	309	4.60	15.8 +- .2		12.3 +- .1	
56	297	5.60	17.2 +- .1		13.4 +- .0	
57	24	2.80	16.1 +- .1		12.6 +- .1	
59	49	10.0	15.9 +- .2		12.4 +- .2	
60	28	4.80	16.5 +- .6		12.9 +- .5	
61	67	5.00	20.5 +- .3		16.0 +- .2	
62	50	5.10	17.2 +- .6		13.5 +- .5	
63	353	2.00	16.2 +- .3		12.6 +- .2	
64	341	1.60	14.8 +- .4		11.6 +- .3	
65	147	10.5	15.0 +- .5		11.7 +- .4	
66	232	0.90	15.3 +- .5		12.0 +- .4	
68	192	4.20	14.5 +- .6		11.3 +- .4	
69	184	4.20	12.8 +- .5		10.0 +- .4	
70	165	4.60	15.6 +- .7		12.2 +- .5	
74	123	13.6	14.8 +- .1		11.6 +- .1	

## HATCH

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811223-820416 115 DAYS  
FIELD TIME 820203-820407 64 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
75	114	12.1	15.1 +- .4		11.8 +- .3	
79	253	1.00	19.2 +- .6		15.0 +- .5	
80	270	1.00	20.0 +- .8		15.7 +- .6	
81	292	1.10	20.4 +- .9		15.9 +- .7	
86	182	10.0	13.9 +- .2		10.8 +- .1	
87	177	10.0	13.8 +- .3		10.8 +- .2	
88	323	12.4	17.3 +- .4		13.5 +- .3	
89	321	13.0	17.7 +- .2		13.8 +- .1	
90	323	12.4	23.3 +- .6		18.2 +- .5	

HATCH  
 FOR THE PERIOD 811223-820416 115 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	12.0 $\pm$ .9	3
11.25-33.75 (NNE)	12.8 $\pm$ .2	2
33.75-56.25 (NE)	13.0 $\pm$ .7	2
56.25-78.75 (ENE)	16.0 $\pm$ 0.0	1
78.75-101.25 (E)	0.0 $\pm$ 0.0	0
101.25-123.75 (ESE)	11.7 $\pm$ .2	2
123.75-146.25 (SE)	0.0 $\pm$ 0.0	0
146.25-168.75 (SSE)	11.9 $\pm$ .3	2
168.75-191.25 (S)	10.5 $\pm$ .5	3
191.25-213.75 (SSW)	11.3 $\pm$ 0.0	1
213.75-236.25 (SW)	12.0 $\pm$ 0.0	1
236.25-258.75 (WSW)	15.0 $\pm$ 0.0	1
258.75-281.25 (W)	15.7 $\pm$ 0.0	1
281.25-303.75 (WNW)	14.7 $\pm$ 1.0	2
303.75-326.25 (NW)	14.5 $\pm$ 2.6	4
326.25-348.75 (NNW)	13.5 $\pm$ 2.0	3

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	13.8 $\pm$ 2.0	6
2-5	12.7 $\pm$ 2.0	9
>5	12.9 $\pm$ 1.9	13

INDIAN POINT

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820423 124 DAYS  
 FIELD TIME 820111-820407 87 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR)	+/- Std. Dev.	mR/Std.Qtr.	+/- Std. Dev.
001	52	1.40	23.2	+-.0	16.9	+-.0
002	53	1.00	24.0	+-.0	17.4	+-.0
003	61	1.50	22.2	+-.2	16.1	+-.1
004	89	1.20	24.5	+-.3	17.8	+-.2
005	107	0.90	22.5	+-.4	16.3	+-.3
006	90	0.50	23.2	+-.5	16.8	+-.4
007	133	0.80	22.1	+-.1	16.1	+-.1
009	188	1.20	24.4	+-.7	17.7	+-.5
010	206	0.90	22.7	+-.7	16.5	+-.5
012	155	2.30	15.9	+-.6	11.5	+-.4
013	136	3.20	23.2	+-.6	16.8	+-.4
014	107	3.10	22.5	+-.4	16.4	+-.3
015	94	3.80	21.8	+-.1	15.8	+-.1
016	142	5.70	24.2	+-.1	17.6	+-.0
017	148	6.50	23.9	+-.6	17.3	+-.4
018	147	9.10	24.9	+-.1	18.1	+-.1
019	137	11.7	25.1	+-.5	18.2	+-.4
020	129	11.6	24.9	+-.1	18.1	+-.1
021	84	8.70	23.1	+-.0	16.7	+-.0
022	74	7.50	24.7	+-.7	17.9	+-.5

INDIAN POINT

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820423 124 DAYS  
 FIELD TIME 820111-820407 87 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR)	+ - Std. Dev.	mR/Std. Dtr.	+ - Std. Dev.
023	48	6.20	23.5	+ - .6	17.0	+ - .5
024	62	5.30	24.9	+ - 1.0	18.1	+ - .7
025	65	4.10	22.8	+ - .8	16.6	+ - .6
026	40	4.00	24.7	+ - .6	17.9	+ - .4
027	25	5.30	23.9	+ - .2	17.4	+ - .2
028	24	2.90	23.2	+ - .4	16.8	+ - .3
029	22	2.10	23.9	+ - .4	17.3	+ - .3
030	8	1.90	26.1	+ - .5	18.9	+ - .4
031	356	5.00	23.8	+ - .6	17.2	+ - .4
032	330	3.70	24.5	+ - .5	17.8	+ - .4
033	338	4.70	25.7	+ - .2	18.6	+ - .1
034	354	7.00	26.6	+ - 1.0	19.3	+ - .7
035	297	4.40	23.0	+ - .5	16.7	+ - .4
036	309	3.60	18.0	+ - .9	13.0	+ - .6
037	350	1.10	22.9	+ - .4	16.6	+ - .3
038	337	0.90	24.6	+ - 1.3	17.8	+ - 1.0
039	315	1.00	23.5	+ - .9	17.1	+ - .7
040	294	1.10	22.9	+ - 1.0	16.7	+ - .7
041	274	1.10	25.1	+ - 1.6	18.2	+ - 1.1
042	248	1.50	25.2	+ - .4	18.3	+ - .3
043	263	2.80	27.3	+ - .1	19.8	+ - .1

INDIAN POINT

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820423 124 DAYS  
 FIELD TIME 820111-820407 87 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
044	239	4.10	24.1 +- .3		17.5 +- .2	
045	227	2.40	24.9 +- .2		18.0 +- .1	
047	218	5.30	22.6 +- .3		16.4 +- .2	
048	201	4.60	23.2 +- .2		16.9 +- .1	
049	187	5.20	21.9 +- .0		15.9 +- .0	
050	171	7.10	22.5 +- .3		16.4 +- .2	
101	5	92.4	18.5 +- 1.8		13.4 +- 1.3	
102	5	92.4	22.5 +- .7		16.3 +- .5	
103	5	92.4	22.9 +- .0		16.6 +- .0	
104	CTL	TLD	15.7 +- .8		11.4 +- .6	

INDIAN POINT  
FOR THE PERIOD 811221-820423 124 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.8 $\pm$ 1.9	7
11.25-33.75 (NNE)	17.2 $\pm$ .3	3
33.75-56.25 (NE)	17.3 $\pm$ .5	4
56.25-78.75 (ENE)	17.1 $\pm$ 1.0	4
78.75-101.25 (E)	16.8 $\pm$ .8	4
101.25-123.75 (ESE)	16.3 $\pm$ .0	2
123.75-146.25 (SE)	17.3 $\pm$ .9	5
146.25-168.75 (SSE)	15.6 $\pm$ 3.6	3
168.75-191.25 (S)	16.7 $\pm$ 1.0	3
191.25-213.75 (SSW)	16.7 $\pm$ .3	2
213.75-236.25 (SW)	17.2 $\pm$ 1.2	2
236.25-258.75 (WSW)	17.9 $\pm$ .6	2
258.75-281.25 (W)	19.0 $\pm$ 1.2	2
281.25-303.75 (WNW)	16.7 $\pm$ .1	2
303.75-326.25 (NW)	15.1 $\pm$ 2.9	2
326.25-348.75 (NNW)	18.1 $\pm$ .5	3

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	17.2 $\pm$ .9	16
2-5	16.7 $\pm$ 1.9	17
>5	17.1 $\pm$ 1.3	17



## KEWAUNEE/POINT BEACH

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820419 124 DAYS  
 FIELD TIME 820119-820415 87 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
001	189	8.10	22.2 +- .1		16.1 +- .1	
002	195	7.00	22.2 +- .2		16.1 +- .2	
003	163	4.90	19.7 +- .2		14.3 +- .2	
004	183	3.30	23.4 +- .6		17.0 +- .5	
005	210	3.20	22.1 +- .3		16.1 +- .2	
006	223	3.70	24.0 +- .0		17.4 +- .0	
007	242	5.70	21.8 +- .6		15.9 +- .4	
008	202	1.80	23.8 +- 1.1		17.3 +- .8	
009	180	1.80	23.2 +- .5		16.8 +- .3	
010	158	1.90	19.4 +- .0		14.1 +- .0	
011	235	1.20	23.5 +- .1		17.1 +- .0	
012	258	1.40	22.4 +- .4		16.3 +- .3	
013	273	1.40	22.2 +- 1.1		16.1 +- .8	
014	290	0.90	22.0 +- .5		15.9 +- .4	
015	333	0.80	21.5 +- .3		15.6 +- .2	
016	342	1.90	22.4 +- .5		16.3 +- .4	
017	317	2.00	23.0 +- .2		16.7 +- .1	
018	310	3.40	23.1 +- .7		16.8 +- .5	
019	293	4.00	22.3 +- .3		16.1 +- .2	
020	273	4.00	21.2 +- .1		15.4 +- .1	

## KEWAUNEE/POINT BEACH

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820419 124 DAYS  
 FIELD TIME 820119-820415 87 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
021	300	5.60	23.1 +- .1		16.7 +- .1	
022	316	5.90	22.4 +- .0		16.2 +- .0	
023	345	2.70	24.4 +- .2		17.7 +- .1	
024	219	1.30	21.1 +- .1		15.3 +- .0	
025	247	1.40	24.5 +- .5		17.8 +- .3	
026	263	1.30	23.3 +- .5		16.9 +- .4	
027	290	1.40	21.6 +- .1		15.7 +- .1	
028	320	1.30	23.6 +- .0		17.1 +- .0	
029	342	1.10	23.0 +- .5		16.7 +- .4	
030	329	0.60	21.2 +- .4		15.4 +- .3	
031	13	1.00	21.4 +- 1.2		15.5 +- .9	
032	353	2.10	23.6 +- .9		17.1 +- .7	
033	301	3.90	23.4 +- .4		17.0 +- .3	
034	299	8.40	20.9 +- .9		15.2 +- .6	
035	323	3.80	20.5 +- .4		14.9 +- .3	
036	336	3.30	20.2 +- .0		14.7 +- .0	
037	6	3.10	22.2 +- .3		16.1 +- .2	
038	14	3.70	21.2 +- .1		15.4 +- .1	
039	13	7.60	20.9 +- .0		15.2 +- .0	
040	247	4.30	24.3 +- .2		17.6 +- .2	
041	8	22.8	21.8 +- .8		15.8 +- .6	

KEWAUNEE/POINT BEACH

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820419 124 DAYS  
 FIELD TIME 820119-820415 87 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE R
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std. Dev. +- Std. De
042	8	22.8	20.6 +- .2	15.0 +- .1
043	8	22.8	22.7 +- .4	16.5 +- .3

KEWAUNEE/POINT BEACH  
 FOR THE PERIOD 811217-820419 124 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.1 +/- .8	5
11.25-33.75 (NNE)	15.4 +/- .2	3
33.75-56.25 (NE)	0.0 +/- 0.0	0
56.25-78.75 (ENE)	0.0 +/- 0.0	0
78.75-101.25 (E)	0.0 +/- 0.0	0
101.25-123.75 (ESE)	0.0 +/- 0.0	0
123.75-146.25 (SE)	0.0 +/- 0.0	0
146.25-168.75 (SSE)	14.2 +/- .2	2
168.75-191.25 (S)	16.6 +/- .5	3
191.25-213.75 (SSW)	16.5 +/- .7	3
213.75-236.25 (SW)	16.6 +/- 1.1	3
236.25-258.75 (WSW)	16.9 +/- .9	4
258.75-281.25 (W)	16.2 +/- .8	3
281.25-303.75 (WNW)	16.1 +/- .7	6
303.75-326.25 (NW)	16.3 +/- .9	5
326.25-348.75 (NNW)	16.1 +/- 1.1	6

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.3 +/- .9	18
2-5	16.2 +/- 1.1	15
>5	15.9 +/- .6	10

## LACROSSE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820415 120 DAYS  
 FIELD TIME 820113-820408 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev	
001	5	20.0	16.0 +- .8		12.0 +- .6	
002	5	20.0	21.1 +- .1		15.8 +- .1	
003	3	20.5	23.0 +- .1		17.2 +- .1	
004	343	3.80	20.8 +- .1		15.6 +- .1	
005	313	3.80	26.5 +- .1		19.9 +- .1	
006	291	3.00	22.3 +- .8		16.7 +- .6	
007	261	4.80	22.6 +- .1		16.9 +- .1	
008	249	3.20	18.2 +- .3		13.6 +- .2	
009	214	5.00	21.6 +- 1.1		16.2 +- .8	
010	171	9.80	20.7 +- .3		15.5 +- .2	
011	176	5.10	20.3 +- .5		15.2 +- .4	
012	165	4.90	15.4 +- .0		11.5 +- .0	
013	138	3.50	21.8 +- .7		16.4 +- .5	
014	114	4.20	15.5 +- 1.0		11.6 +- .8	
015	97	3.90	20.3 +- .7		15.2 +- .5	
016	94	3.00	17.1 +- .3		12.8 +- .3	
017	105	2.00	22.1 +- .4		16.5 +- .3	
018	52	1.50	21.2 +- .1		15.9 +- .0	
019	16	1.50	20.0 +- .0		13.0 +- .0	
021	358	0.50	22.2 +- .1		16.6 +- .1	

## LACROSSE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811217-820415 120 DAYS  
FIELD TIME 820113-820408 86 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RA :
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std.Qtr. +- Std. Dev.
022	180	0.60	21.0 +- .6	15.7 +- .4
023	134	1.70	23.5 +- 1.2	17.6 +- .9
024	58	0.60	21.8 +- .8	16.3 +- .6
026	16	1.50	20.2 +- .5	15.2 +- .4
027	26	5.10	19.7 +- .0	14.8 +- .0
028	25	7.00	20.1 +- .2	15.0 +- .1
029	4	4.80	21.6 +- .3	16.2 +- .2

LACROSSE  
FOR THE PERIOD 811217-820415 120 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	15.6 +- 2.1	5
11.25-33.75 (NNE)	15.0 +- .2	4
33.75-56.25 (NE)	15.9 +- 0.0	1
56.25-78.75 (ENE)	16.3 +- 0.0	1
78.75-101.25 (E)	14.0 +- 1.7	2
101.25-123.75 (ESE)	14.1 +- 3.5	2
123.75-146.25 (SE)	17.0 +- .9	2
146.25-168.75 (SSE)	11.5 +- 0.0	1
168.75-191.25 (S)	15.5 +- .3	3
191.25-213.75 (SSW)	0.0 +- 0.0	0
213.75-236.25 (SW)	16.2 +- 0.0	1
236.25-258.75 (WSW)	13.6 +- 0.0	1
258.75-281.25 (W)	16.9 +- 0.0	1
281.25-303.75 (WNW)	16.7 +- 0.0	1
303.75-326.25 (NW)	19.9 +- 0.0	1
326.25-348.75 (NNW)	15.6 +- 0.0	1

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.1 +- .8	8
2-5	15.2 +- 2.4	12
>5	15.1 +- 1.6	7

LASALLE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 09: 217-820407 112 DAYS  
 FIELD TIME 124-820326 62 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RATE mR/Std. Dev.	
	AZIMUTH (Deg.)	DIST (mi.)	+ -	Std. Dev.	+ -	Std. Dev.
001	302	10.4	21.0	+ - .4	16.8	+ - .3
002	335	4.80	20.5	+ - .3	16.4	+ - .3
003	343	5.80	19.0	+ - .2	15.2	+ - .2
005	39	4.30	19.8	+ - .3	15.9	+ - .2
006	27	3.80	20.9	+ - .0	16.8	+ - .0
007	355	4.10	21.5	+ - .1	17.2	+ - .1
008	304	4.60	21.1	+ - 1.2	17.0	+ - .9
009	292	3.90	22.7	+ - .3	18.2	+ - .3
010	276	3.70	19.8	+ - .1	15.9	+ - .1
011	248	4.00	21.8	+ - .8	17.5	+ - .6
012	222	12.3	20.5	+ - .3	16.5	+ - .2
013	212	18.1	20.4	+ - .5	16.4	+ - .4
014	212	18.1	21.7	+ - .8	17.4	+ - .7
015	212	18.0	22.4	+ - 1.5	18.0	+ - 1.2
016	215	4.40	22.9	+ - .8	18.4	+ - .7
017	204	4.00	22.1	+ - .9	17.7	+ - .7
018	173	4.60	21.6	+ - .1	17.3	+ - .1
019	174	6.40	20.9	+ - .5	16.8	+ - .4
020	158	4.90	21.4	+ - .8	17.2	+ - .6
021	125	4.20	21.4	+ - .5	17.2	+ - .4



LASALLE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820407 112 DAYS  
 FIELD TIME 820124-820326 62 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
022	114	3.80	21.6 +- 1.4		17.3 +- 1.1	
023	97	4.50	20.1 +- .7		16.1 +- .6	
024	72	4.70	23.1 +- .0		18.6 +- .0	
025	41	2.00	20.4 +- .8		16.4 +- .7	
026	13	1.60	21.2 +- .3		17.0 +- .2	
027	358	1.50	22.3 +- .9		17.9 +- .7	
028	336	1.60	21.3 +- .1		17.1 +- .1	
029	310	2.30	20.2 +- .1		16.3 +- .1	
030	301	2.00	22.8 +- .6		18.3 +- .5	
031	271	1.70	21.3 +- .7		17.1 +- .6	
032	251	1.80	21.9 +- .4		17.6 +- .3	
033	227	2.40	21.5 +- .2		17.3 +- .1	
034	204	1.70	22.5 +- .2		18.1 +- .1	
035	171	1.60	20.8 +- 1.1		16.7 +- .9	
036	153	1.80	21.1 +- .3		16.9 +- .2	
037	139	2.10	22.0 +- 1.1		17.7 +- .9	
038	111	1.50	20.0 +- .3		16.1 +- .2	
039	271	0.60	21.4 +- .1		17.2 +- .1	
050	CTL	TLD	23.4 +- .3		18.8 +- .2	

LASALLE  
 FOR THE PERIOD 811217-820407 112 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	17.6 +/- .5	2
11.25-33.75 (NNE)	16.9 +/- .2	2
33.75-56.25 (NE)	16.1 +/- .4	2
56.25-78.75 (ENE)	18.6 +/- 0.0	1
78.75-101.25 (E)	16.1 +/- 0.0	1
101.25-123.75 (ESE)	16.7 +/- .9	2
123.75-146.25 (SE)	17.4 +/- .3	2
146.25-168.75 (SSE)	17.0 +/- .2	2
168.75-191.25 (S)	16.9 +/- .3	3
191.25-213.75 (SSW)	17.5 +/- .7	5
213.75-236.25 (SW)	17.4 +/- 1.0	3
236.25-258.75 (WSW)	17.5 +/- .0	2
258.75-281.25 (W)	16.7 +/- .7	3
281.25-303.75 (WNW)	17.8 +/- .8	3
303.75-326.25 (NW)	16.6 +/- .5	2
326.25-348.75 (NNW)	16.3 +/- .9	3

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	17.2 +/- .7	12
2-5	17.2 +/- .8	19
>5	16.7 +/- .9	7

MAINE YANKEE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820416 108 DAYS  
 FIELD TIME 820105-820406 92 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
002	6	1.40	16.1 +- .3		13.4 +- .2	
004	44	1.80	20.0 +- 1.0		16.7 +- .9	
005	116	0.50	19.1 +- .2		15.9 +- .2	
006	168	1.00	20.0 +- .4		16.7 +- .3	
007	185	1.60	19.4 +- .4		16.1 +- .4	
008	195	2.30	18.1 +- .2		15.1 +- .2	
009	209	3.80	20.3 +- .9		17.0 +- .7	
010	310	1.70	18.0 +- .3		15.0 +- .2	
011	290	1.80	20.7 +- .2		17.2 +- .2	
012	275	1.70	21.2 +- .4		17.7 +- .3	
013	256	1.90	18.4 +- 1.0		15.3 +- .9	
014	232	2.50	19.7 +- .4		16.4 +- .3	
015	227	5.30	18.8 +- .4		15.6 +- .3	
016	246	4.40	19.4 +- .4		16.2 +- .3	
017	250	6.60	26.7 +- .4		22.3 +- .3	
018	268	4.70	21.0 +- .4		17.5 +- .3	
019	283	4.40	17.9 +- .8		14.9 +- .7	
020	305	4.70	19.0 +- 1.0		15.8 +- .9	
021	300	2.90	19.0 +- .4		15.8 +- .4	
022	332	2.70	19.8 +- .4		16.5 +- .4	

MAINE YANKEE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820416 108 DAYS  
 FIELD TIME 820105-820406 92 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
023	20	3.90	18.7 +- .1		15.6 +- .1	
024	23	3.00	20.3 +- .1		16.9 +- .1	
025	42	4.70	18.4 +- .5		15.3 +- .5	
026	60	15.0	18.5 +- .7		15.4 +- .6	
027	62	16.3	21.3 +- .3		17.7 +- .2	
028	63	16.3	17.8 +- .8		14.8 +- .7	
030	84	1.50	15.8 +- .6		13.1 +- .5	
031	115	1.60	20.4 +- .1		17.0 +- .1	
032	135	2.00	20.4 +- .1		17.0 +- .1	
033	66	3.50	18.5 +- .6		15.4 +- .5	
034	97	4.90	20.5 +- .1		17.1 +- .1	
035	123	4.80	20.3 +- .1		16.9 +- .1	
036	140	4.90	21.1 +- 1.1		17.6 +- .9	
037	151	6.00	22.6 +- .4		18.8 +- .3	
038	152	4.20	21.7 +- .1		18.1 +- .1	
039	172	4.90	21.9 +- .2		18.2 +- .2	
040	156	7.40	21.7 +- .7		18.1 +- .6	
050	CTL	TLD	12.5 +- .2		10.4 +- .2	

MAINE YANKEE  
 FOR THE PERIOD 811230-820416 108 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	13.4 $\pm$ 0.0	1
11.25-33.75 (NNE)	16.2 $\pm$ 1.0	2
33.75-56.25 (NE)	16.0 $\pm$ .9	2
56.25-78.75 (ENE)	15.8 $\pm$ 1.3	4
78.75-101.25 (E)	15.1 $\pm$ 2.8	2
101.25-123.75 (ESE)	16.6 $\pm$ .6	3
123.75-146.25 (SE)	17.3 $\pm$ .4	2
146.25-168.75 (SSE)	17.9 $\pm$ .9	4
168.75-191.25 (S)	17.2 $\pm$ 1.5	2
191.25-213.75 (SSW)	16.0 $\pm$ 1.3	2
213.75-236.25 (SW)	16.0 $\pm$ .6	2
236.25-258.75 (WSW)	17.9 $\pm$ 3.0	3
258.75-281.25 (W)	17.6 $\pm$ .1	2
281.25-303.75 (WNW)	16.0 $\pm$ 1.2	3
303.75-326.25 (NW)	15.4 $\pm$ .6	2
326.25-348.75 (NNW)	16.5 $\pm$ 0.0	1

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	15.9 $\pm$ 1.5	12
2-5	16.5 $\pm$ 1.0	18
>5	17.5 $\pm$ 2.6	7

## MC GUIRE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811215-820402 109 DAYS  
 FIELD TIME 811221-820325 95 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATE
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.	mR/Std. Dev. +- Std. Dev.
001	97	0.50	22.5 +- 1.0	18.6 +- .8
002	323	1.60	22.8 +- 1.7	18.8 +- 1.4
003	336	1.70	25.9 +- .2	21.4 +- .2
004	303	2.90	23.9 +- .2	19.8 +- .2
005	321	3.90	21.2 +- 0.0	17.5 +- 0.0
006	334	3.70	21.6 +- 1.9	17.8 +- 1.6
008	287	2.00	24.5 +- .4	20.2 +- .3
009	273	1.90	21.8 +- 1.4	13.0 +- 1.1
010	244	1.70	19.4 +- .9	16.0 +- .8
011	225	2.10	18.4 +- 3.3	15.2 +- 2.7
013	232	4.40	26.4 +- .6	21.8 +- .5
014	253	3.70	23.8 +- 1.0	19.7 +- .9
015	261	4.20	18.1 +- .3	14.9 +- .3
016	288	4.30	27.5 +- .9	22.7 +- .7
017	288	16.9	27.5 +- .4	22.7 +- .3
018	287	2.00	28.6 +- 1.0	23.6 +- .8
019	286	16.9	26.6 +- .2	21.9 +- .2
021	204	10.1	26.3 +- .1	21.7 +- .1
023	115	4.90	15.8 +- .4	13.0 +- .3
024	132	4.90	20.6 +- .7	17.0 +- .6

MC GUIRE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 011215-020402 189 DAYS  
FIELD TIME 011221-020325 95 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATE
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.	mR/Std.Qtr. +- Std. Dev.
025	156	4.00	19.0 +- .8	15.7 +- .6
026	175	3.70	15.5 +- 1.3	12.8 +- 1.1
027	198	4.30	24.3 +- .6	20.0 +- .5
028	169	12.6	26.0 +- .9	16.5 +- .8
029	155	12.5	17.6 +- .4	14.5 +- .4
030	146	13.5	21.5 +- .5	17.8 +- .4
031	143	1.90	21.6 +- .1	17.8 +- .1
032	155	1.30	22.6 +- 1.0	18.7 +- .8
033	178	1.60	20.8 +- 1.7	17.2 +- 1.4
034	108	2.00	18.8 +- .7	15.5 +- .6
035	93	2.20	20.6 +- .6	17.0 +- .5
036	68	2.50	20.6 +- .1	17.0 +- .1
037	82	4.70	18.5 +- .9	15.3 +- .8
038	64	4.90	22.8 +- .2	18.9 +- .1
039	42	5.00	22.0 +- .5	18.1 +- .4
040	26	4.30	22.3 +- .1	18.4 +- .1
041	42	2.00	18.9 +- .2	15.6 +- .1
042	21	1.60	21.4 +- 1.0	17.7 +- .8
043	8	2.60	23.3 +- 3.0	19.3 +- 2.4
044	37	13.0	27.5 +- .1	22.7 +- .1
045	78	18.6	32.4 +- .9	26.8 +- .7

MC GUIRE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811215-820402 109 DAYS  
FIELD TIME 811221-820325 95 DAYS

NRC STATION	LOCATION AZIMUTH-DIST (deg.) (mi.)	INTEGRATED EXPOSURE(mR) +- Std. Dev.	EXPOSURE mR/Std. Dt. +- Std. D=
046	94 18.7	24.9 +- 1.3	20.6 +- 1.1
050	CTL TLD	13.8 +- .4	11.4 +- .3



MC GUIRE  
 FOR THE PERIOD 811215-820402 109 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	19.3 $\pm$ 0.0	1
11.25-33.75 (NNE)	18.0 $\pm$ .5	2
33.75-56.25 (NE)	18.8 $\pm$ 3.6	3
56.25-78.75 (ENE)	20.9 $\pm$ 5.2	3
78.75-101.25 (E)	17.9 $\pm$ 2.3	4
101.25-123.75 (ESE)	14.3 $\pm$ 1.8	2
123.75-146.25 (SE)	17.5 $\pm$ .5	3
146.25-168.75 (SSE)	16.3 $\pm$ 2.1	3
168.75-191.25 (S)	15.5 $\pm$ 2.4	3
191.25-213.75 (SSW)	20.9 $\pm$ 1.2	2
213.75-236.25 (SW)	10.5 $\pm$ 4.7	2
236.25-258.75 (WSW)	17.8 $\pm$ 2.6	2
258.75-281.25 (W)	16.4 $\pm$ 2.2	2
281.25-303.75 (WNW)	21.8 $\pm$ 1.5	6
303.75-326.25 (NW)	18.2 $\pm$ .9	2
326.25-348.75 (NNW)	19.6 $\pm$ 2.6	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	18.4 $\pm$ 2.3	13
2-5	17.6 $\pm$ 2.6	20
>5	20.6 $\pm$ 3.7	9

## MILLSTONE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820413 114 DAYS  
 FIELD TIME 820106-820402 87 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
002	24	1.30	12.9 +- .0		10.2 +- .0	
003	47	1.50	19.3 +- .1		15.2 +- .0	
004	60	1.70	17.6 +- .3		13.9 +- .2	
005	85	1.30	19.3 +- .8		15.2 +- .6	
006	110	1.80	18.3 +- .2		14.4 +- .1	
007	67	5.30	19.4 +- .9		15.3 +- .7	
008	49	5.30	19.1 +- .4		15.1 +- .3	
009	84	5.20	18.2 +- .0		14.3 +- .0	
011	232	2.50	18.0 +- .4		14.2 +- .3	
012	256	2.40	19.8 +- .7		15.6 +- .6	
013	274	2.20	18.9 +- .1		14.9 +- .1	
014	295	1.90	18.6 +- .1		14.7 +- .1	
015	315	1.50	15.6 +- .3		12.3 +- .3	
016	339	1.20	19.7 +- .5		15.5 +- .4	
017	353	3.50	18.4 +- .4		14.5 +- .3	
018	24	3.50	17.7 +- .3		13.9 +- .2	
019	33	3.00	19.8 +- .6		15.6 +- .5	
020	82	4.00	17.0 +- .1		13.4 +- .1	
022	59	3.70	19.9 +- .8		15.7 +- .6	
028	257	5.80	20.4 +- .1		16.1 +- .1	

## MILLSTONE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811221-820413 114 DAYS  
 FIELD TIME 820100-820402 87 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE(mR)		EXPOSURE RATE mR/Std. Dev.	
	AZIMUTH/ (deg.)	DIST (mi.)	+- Std. Dev.		+- Std. Dev.	
029	272	3.70	20.6 +- .0	16.3 +- .0		
030	295	3.50	20.4 +- .5	16.1 +- .4		
031	317	3.60	17.8 +- .3	14.1 +- .2		
032	327	4.30	21.1 +- .1	16.6 +- .1		
033	41	4.70	18.4 +- .0	14.5 +- .0		
034	54	5.50	19.3 +- .2	15.3 +- .2		
037	354	6.80	18.2 +- .6	14.3 +- .4		
039	1	5.70	18.1 +- .2	14.3 +- .1		
040	278	8.70	16.1 +- .2	12.7 +- .2		
041	34	11.5	25.4 +- .4	20.1 +- .3		
042	84	8.00	18.6 +- .4	14.7 +- .3		
046	41	0.60	17.8 +- .3	14.0 +- .3		
048	4	40.0	22.3 +- .8	17.6 +- .6		
049	4	40.0	22.6 +- .1	17.8 +- .1		
050	CTL	TLD	8.0 +- .2	6.3 +- .1		

MILLSTONE  
 FOR THE PERIOD 811221-820413 114 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	15.7 $\pm$ 1.8	5
11.25-33.75 (NNE)	13.3 $\pm$ 2.8	3
33.75-56.25 (NE)	15.7 $\pm$ 2.2	6
56.25-78.75 (ENE)	15.0 $\pm$ .9	3
78.75-101.25 (E)	14.4 $\pm$ .8	4
101.25-123.75 (ESE)	14.4 $\pm$ 0.0	1
123.75-146.25 (SE)	0.0 $\pm$ 0.0	0
146.25-168.75 (SSE)	0.0 $\pm$ 0.0	0
168.75-191.25 (S)	0.0 $\pm$ 0.0	0
191.25-213.75 (SSW)	0.0 $\pm$ 0.0	0
213.75-236.25 (SW)	14.2 $\pm$ 0.0	1
236.25-258.75 (WSW)	15.9 $\pm$ .3	2
258.75-281.25 (W)	14.6 $\pm$ 1.0	3
281.25-303.75 (WNW)	15.4 $\pm$ 1.0	2
303.75-326.25 (NW)	13.2 $\pm$ 1.2	2
326.25-348.75 (NNW)	16.1 $\pm$ .8	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	13.9 $\pm$ 1.7	9
2-5	15.0 $\pm$ 1.0	13
>5	15.6 $\pm$ 2.0	12

## MONTICELLO

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820413 118 DAYS  
 FIELD TIME 820107-820407 91 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RA mR/Std. Dev.	
	AZIMUTH (deg.)	DIST (mi.)	+- Std. Dev.		+- Std. Dev.	
100	CTL	TLD	14.4	+- .5	11.0	+- .4
51	133	3.60	23.0	+- .3	17.5	+- .3
52	163	4.60	23.7	+- .8	18.1	+- .6
53	183	4.10	23.5	+- .7	17.5	+- .5
54	206	4.30	22.1	+- .1	16.9	+- .1
55	230	4.20	21.9	+- .8	16.7	+- .6
56	253	4.60	22.9	+- .4	17.4	+- .3
57	269	4.40	23.1	+- .2	17.6	+- .1
58	286	4.00	22.6	+- 0.0	17.2	+- 0.0
59	274	1.90	22.9	+- .2	17.5	+- .1
60	244	1.30	21.3	+- .9	16.2	+- .7
61	226	0.90	21.6	+- .9	16.5	+- .7
62	181	1.80	22.2	+- .2	17.0	+- .1
63	137	1.70	23.2	+- .2	17.7	+- .1
64	155	1.00	21.9	+- .0	16.7	+- .0
65	208	0.50	22.1	+- .5	16.9	+- .4
66	284	2.00	22.8	+- .4	17.4	+- .3
67	113	1.60	15.9	+- .0	12.1	+- .0
68	85	1.10	22.5	+- .1	17.2	+- .1
69	63	1.20	22.8	+- 1.0	17.4	+- .8

## MONTICELLO

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820413 118 DAYS  
 FIELD TIME 820107-820407 91 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev	
70	37	1.70	22.9 +- .1		17.5 +- .1	
71	23	0.80	22.4 +- .6		17.1 +- .5	
72	354	0.70	22.1 +- 1.0		16.9 +- .8	
73	338	0.80	21.7 +- .1		16.5 +- .0	
74	307	1.80	21.7 +- .2		16.5 +- .2	
75	339	4.10	21.6 +- .2		16.4 +- .1	
76	320	4.60	16.1 +- .3		12.3 +- .3	
77	354	4.50	21.4 +- .9		16.3 +- .7	
78	17	3.70	21.3 +- .5		16.2 +- .4	
79	50	4.00	22.0 +- .4		16.8 +- .3	
80	77	3.60	22.2 +- .8		17.0 +- .6	
81	115	3.30	22.1 +- .4		16.9 +- .3	
82	90	4.60	22.2 +- .1		16.9 +- .1	
83	323	15.8	22.6 +- .4		17.2 +- .3	
84	323	15.8	22.3 +- .0		17.0 +- .0	
85	323	15.9	22.0 +- .4		16.8 +- .3	

MONTICELLO  
 FOR THE PERIOD 311217-820413 118 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.6 $\pm$ .4	2
11.25-33.75 (NNE)	16.7 $\pm$ .6	2
33.75-56.25 (NE)	17.1 $\pm$ .5	2
56.25-78.75 (ENE)	17.2 $\pm$ .3	2
78.75-101.25 (E)	17.1 $\pm$ .2	2
101.25-123.75 (ESE)	14.5 $\pm$ 3.4	2
123.75-146.25 (SE)	17.6 $\pm$ .1	2
146.25-168.75 (SSE)	17.4 $\pm$ 1.0	2
168.75-191.25 (S)	17.4 $\pm$ .7	2
191.25-213.75 (SSW)	16.8 $\pm$ .0	2
213.75-236.25 (SW)	16.6 $\pm$ .2	2
236.25-258.75 (WSW)	16.8 $\pm$ .9	2
258.75-281.25 (W)	17.5 $\pm$ .1	2
281.25-303.75 (WNW)	17.3 $\pm$ .1	2
303.75-326.25 (NW)	16.0 $\pm$ 2.1	5
326.25-348.75 (NNW)	16.5 $\pm$ .1	2

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.7 $\pm$ 1.3	16
2-5	16.8 $\pm$ 1.3	16
>5	17.0 $\pm$ .2	3

NORTH ANNA

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820413 118 DAYS  
 FIELD TIME 820107-820408 92 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE F
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std.Qtr. +- Std. De
002	263	1.60	24.5 +- .6	18.7 +- .4
003	296	1.00	24.8 +- .2	18.9 +- .1
004	311	1.30	28.2 +- 1.0	21.5 +- .7
005	329	1.30	27.7 +- .2	21.1 +- .1
006	231	3.90	28.5 +- .6	21.7 +- .5
007	224	1.70	25.6 +- .4	19.5 +- .3
008	210	1.60	25.5 +- 1.2	19.5 +- .9
009	181	1.40	22.0 +- .9	16.7 +- .7
010	155	1.00	30.8 +- .3	23.5 +- .2
011	136	1.60	24.7 +- 1.0	18.8 +- .7
012	163	3.50	25.1 +- .0	19.2 +- .0
015	140	4.20	26.0 +- 1.2	19.8 +- .9
016	113	4.90	29.1 +- .1	22.2 +- .0
017	93	3.30	23.3 +- .5	17.8 +- .4
018	64	4.10	26.0 +- .2	19.8 +- .1
020	97	1.90	26.1 +- .1	19.9 +- .0
022	60	2.40	23.2 +- .4	17.7 +- .3
023	37	1.40	25.0 +- 1.3	19.1 +- 1.0
024	16	1.60	28.1 +- .6	21.4 +- .4
025	48	3.50	21.9 +- .1	16.7 +- .1



## NORTH ANNA

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811217-820413 118 DAYS  
FIELD TIME 820107-820408 92 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RA
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std. Dev. +- Std. Dev.
026	17	3.70	25.4 +- 1.2	19.3 +- .9
027	3	4.80	25.7 +- .5	19.6 +- .4
028	348	4.00	24.5 +- .0	18.7 +- .0
029	2	1.90	22.9 +- 1.0	17.5 +- .8
030	284	5.00	23.8 +- .2	18.1 +- .2
031	310	4.70	25.7 +- .4	19.6 +- .3
032	273	4.90	22.5 +- .6	17.2 +- .4
033	257	5.10	24.2 +- .5	18.4 +- .4
034	242	7.10	23.9 +- .4	18.2 +- .3
035	255	11.4	23.2 +- .8	17.7 +- .6
036	248	15.1	23.9 +- .5	18.3 +- .4
038	244	19.3	21.4 +- .3	16.3 +- .2

NORTH ANNA  
 FOR THE PERIOD 811217-820413 118 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	18.5 $\pm$ 1.5	2
11.25-33.75 (NNE)	20.4 $\pm$ 1.5	2
33.75-56.25 (NE)	17.9 $\pm$ 1.7	2
56.25-78.75 (ENE)	18.8 $\pm$ 1.5	2
78.75-101.25 (E)	18.9 $\pm$ 1.5	2
101.25-123.75 (ESE)	22.2 $\pm$ 0.0	1
123.75-146.25 (SE)	19.3 $\pm$ .7	2
146.25-168.75 (SSE)	21.3 $\pm$ 3.1	2
168.75-191.25 (S)	16.7 $\pm$ 0.0	1
191.25-213.75 (SSW)	19.5 $\pm$ 0.0	1
213.75-236.25 (SW)	20.6 $\pm$ 1.5	2
236.25-258.75 (WSW)	17.8 $\pm$ .9	5
258.75-281.25 (W)	17.9 $\pm$ 1.1	2
281.25-303.75 (WNW)	18.5 $\pm$ .6	2
303.75-326.25 (NW)	20.6 $\pm$ 1.3	2
326.25-348.75 (NNW)	19.9 $\pm$ 1.7	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	19.7 $\pm$ 1.8	13
2-5	19.1 $\pm$ 1.6	14
>5	17.8 $\pm$ .9	5

OCONEE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820412 117 DAYS  
 FIELD TIME 820105-820406 92 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	158	7.50	33.1 +- 1.3		25.5 +- 1.0	
002	133	4.91	36.5 +- 1.2		28.1 +- .9	
003	119	4.30	30.7 +- .2		23.6 +- .2	
004	84	4.70	34.1 +- .0		26.3 +- .0	
005	65	4.00	26.1 +- 1.5		20.0 +- 1.2	
007	22	3.50	33.2 +- .2		25.5 +- .2	
008	33	1.40	25.8 +- .4		19.8 +- .3	
009	52	1.80	29.4 +- .1		22.6 +- .1	
010	66	1.20	24.6 +- .1		18.9 +- .1	
011	107	1.90	30.1 +- 0.0		23.1 +- 0.0	
012	87	1.00	31.3 +- .8		24.9 +- .6	
013	142	0.70	30.9 +- 1.4		23.8 +- 1.1	
015	226	1.70	31.0 +- .5		23.9 +- .4	
016	207	1.40	30.1 +- 1.7		23.1 +- 1.3	
017	182	2.20	29.0 +- 1.1		22.3 +- .8	
018	186	3.80	27.7 +- .4		21.3 +- .3	
019	155	4.10	32.2 +- .2		24.8 +- .1	
020	203	8.40	28.7 +- .7		22.1 +- .5	
021	210	4.60	31.1 +- .4		23.9 +- .3	
022	227	4.80	29.4 +- .3		22.6 +- .2	

OCONEE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820412 117 DAYS  
 FIELD TIME 820105-820406 92 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr +- Std. Dev.	
023	240	3.60	29.8 +- 1.0		22.9 +- .7	
024	268	3.60	32.2 +- .4		24.8 +- .3	
025	257	1.90	26.0 +- .9		20.0 +- .7	
026	293	3.60	23.2 +- .7		17.8 +- .5	
027	311	3.50	25.5 +- 1.6		19.6 +- 1.2	
028	288	2.00	26.8 +- .5		20.6 +- .4	
029	275	1.80	27.2 +- 1.7		20.9 +- 1.3	
030	321	1.80	30.0 +- .3		23.1 +- .2	
031	344	2.00	26.2 +- .7		20.1 +- .5	
032	336	3.70	38.1 +- 1.0		29.3 +- .8	
033	358	4.50	30.1 +- .5		23.1 +- .4	
034	256	9.40	37.0 +- .9		28.5 +- .7	
036	126	8.20	33.9 +- .1		26.0 +- .1	
037	96	9.70	31.2 +- .6		24.0 +- .5	
038	32	15.7	40.6 +- 1.1		31.2 +- .9	
039	31	15.6	35.1 +- .6		27.0 +- .5	
040	29	15.8	35.8 +- .0		27.5 +- .0	

OCONEE  
 FOR THE PERIOD 811217-820412 117 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	23.1 $\pm$ 0.0	1
11.25-33.75 (NNE)	26.2 $\pm$ 4.1	5
33.75-56.25 (NE)	22.6 $\pm$ 0.0	1
56.25-78.75 (ENE)	19.5 $\pm$ .8	2
78.75-101.25 (E)	24.8 $\pm$ 1.3	3
101.25-123.75 (ESE)	23.4 $\pm$ .3	2
123.75-146.25 (SE)	26.0 $\pm$ 2.1	3
146.25-168.75 (SSE)	25.1 $\pm$ .5	2
168.75-191.25 (S)	21.8 $\pm$ .7	2
191.25-213.75 (SSW)	23.0 $\pm$ .9	3
213.75-236.25 (SW)	23.2 $\pm$ .9	2
236.25-258.75 (WSW)	23.8 $\pm$ 4.3	3
258.75-281.25 (W)	22.9 $\pm$ 2.7	2
281.25-303.75 (WNW)	19.2 $\pm$ 2.0	2
303.75-326.25 (NW)	21.3 $\pm$ 2.5	2
326.25-348.75 (NNW)	24.7 $\pm$ 6.5	2

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	21.8 $\pm$ 1.8	13
2-5	23.5 $\pm$ 3.0	16
>5	26.5 $\pm$ 2.8	8

## OYSTER CREEK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811218-820405 109 DAYS  
 FIELD TIME 820105-820330 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dtr. +- Std. Dev.	
001	141	0.50	18.0 +- .8		14.8 +- .7	
002	120	0.90	18.3 +- .5		15.1 +- .4	
004	127	1.50	18.6 +- .2		15.4 +- .2	
005	137	1.30	18.9 +- .2		15.6 +- .2	
007	176	2.20	17.8 +- .3		14.7 +- .2	
008	179	1.60	17.0 +- .5		14.0 +- .4	
009	159	2.80	16.6 +- .0		13.7 +- .0	
010	187	8.40	18.3 +- .3		15.1 +- .2	
011	173	4.40	17.5 +- .6		14.4 +- .5	
012	196	4.20	17.0 +- .5		14.1 +- .4	
014	185	10.1	16.6 +- .6		13.7 +- .5	
015	171	10.8	16.4 +- .0		13.6 +- .0	
016	154	8.20	16.5 +- .2		13.6 +- .1	
017	126	6.30	17.2 +- .7		14.2 +- .6	
018	220	4.60	15.8 +- .6		13.1 +- .5	
019	231	5.30	19.1 +- .4		15.7 +- .3	
020	211	1.60	16.7 +- .6		13.8 +- .5	
022	258	1.50	15.7 +- .1		12.9 +- .0	
023	271	1.20	16.9 +- .5		13.9 +- .4	
024	297	1.30	16.3 +- .2		13.4 +- .2	

## OYSTER CREEK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811218-820405 109 DAYS  
 FIELD TIME 820105-820330 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
025	318	1.50	16.0 +- .3		13.2 +- .3	
026	341	3.20	16.9 +- .6		14.0 +- .5	
027	330	4.60	17.7 +- .6		14.6 +- .5	
028	358	3.20	16.6 +- .1		13.7 +- .1	
029	4	1.80	16.4 +- .3		13.5 +- .2	
030	19	0.80	16.0 +- .3		13.2 +- .2	
031	69	1.40	16.5 +- .5		13.7 +- .4	
032	78	2.50	16.1 +- .2		13.3 +- .2	
033	85	2.20	15.0 +- .1		12.4 +- .1	
034	38	1.70	16.6 +- .3		13.7 +- .2	
035	24	1.90	17.7 +- 1.3		14.6 +- 1.0	
036	50	3.00	17.4 +- .4		14.3 +- .3	
037	46	4.80	14.7 +- .1		12.1 +- .0	
038	27	4.00	17.6 +- .8		14.5 +- .7	
039	12	8.90	16.1 +- .7		13.3 +- .6	
040	10	8.70	17.0 +- .7		14.0 +- .6	
041	3	9.90	17.4 +- 1.7		14.4 +- 1.4	
042	38	10.8	17.3 +- .1		14.3 +- .1	
043	46	9.10	18.5 +- .3		15.3 +- .3	
044	73	6.50	16.0 +- .3		13.2 +- .2	
045	79	6.00	18.0 +- .3		14.8 +- .2	

## OYSTER CREEK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811218-820405 109 DAYS  
FIELD TIME 820105-820330 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
046	278	20.5	18.4 +- .4		15.2 +- .4	
047	278	20.5	18.9 +- .1		15.6 +- .1	
050	CTL	TLD	14.2 +- .9		11.7 +- .8	



OYSTER CREEK  
 FOR THE PERIOD 811213-820405 109 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	13.9 $\pm$ .4	4
11.25-33.75 (NNE)	13.9 $\pm$ .8	4
33.75-56.25 (NE)	13.9 $\pm$ 1.2	5
56.25-78.75 (ENE)	13.4 $\pm$ .2	3
78.75-101.25 (E)	13.6 $\pm$ 1.8	2
101.25-123.75 (ESE)	15.1 $\pm$ 0.0	1
123.75-146.25 (SE)	15.0 $\pm$ .6	4
146.25-168.75 (SSE)	13.6 $\pm$ .1	2
168.75-191.25 (S)	14.2 $\pm$ .6	6
191.25-213.75 (SSW)	13.9 $\pm$ .2	2
213.75-236.25 (SW)	14.4 $\pm$ 1.9	2
236.25-258.75 (WSW)	12.9 $\pm$ 0.0	1
258.75-281.25 (W)	14.9 $\pm$ .9	3
281.25-303.75 (WNW)	13.4 $\pm$ 0.0	1
303.75-326.25 (NW)	13.2 $\pm$ 0.0	1
326.25-348.75 (NNW)	14.3 $\pm$ .4	2

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	14.1 $\pm$ .8	15
2-5	13.8 $\pm$ .8	13
>5	14.4 $\pm$ .8	15

## PALISADES

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820504 139 DAYS  
 FIELD TIME 811230-820407 99 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Qtr. +- Std. Dev.	
002	173	4.60	25.2 +- .3		16.3 +- .2	
003	156	3.90	26.0 +- .7		16.8 +- .4	
004	132	4.60	26.4 +- .3		17.1 +- .2	
005	118	3.30	26.9 +- .5		17.4 +- .3	
006	152	1.80	25.6 +- .5		16.5 +- .3	
007	196	2.20	23.0 +- .7		14.9 +- .4	
008	178	1.60	25.0 +- .0		16.2 +- .0	
009	200	0.90	26.1 +- .6		16.9 +- .4	
010	124	1.80	26.3 +- .4		17.0 +- .2	
012	90	1.50	25.6 +- .4		16.6 +- .2	
013	65	1.70	25.7 +- .1		16.7 +- .0	
014	51	1.90	24.6 +- .8		15.9 +- .5	
015	74	3.70	25.2 +- .1		16.3 +- .1	
016	90	3.60	25.8 +- .1		16.7 +- .0	
017	98	10.2	24.9 +- .8		16.1 +- .5	
018	47	4.50	22.5 +- 3.3		14.6 +- 2.1	
019	23	1.50	26.0 +- .2		16.8 +- .1	
020	32	4.80	26.1 +- .1		16.9 +- .1	
022	99	15.2	26.0 +- .3		16.8 +- .2	
023	98	18.3	25.8 +- .3		16.7 +- .2	

PALISADES

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811217-820504 139 DAYS  
FIELD TIME 811230-820407 99 DAYS

NRC STATION	LOCATION AZIMUTH/DIST (deg.) (mi.)	INTEGRATED EXPOSURE(mR) +- Std. Dev.	EXPOSURE RATE mR/Std. Dev. +- Std. Dev.
024	98 18.3	25.9 +- .2	16.8 +- .1

PALISADES  
 FOR THE PERIOD 811217-820504 139 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 +- 0.0	0
11.25-33.75 (NNE)	16.9 +- .1	2
33.75-56.25 (NE)	15.3 +- 1.0	2
56.25-78.75 (ENE)	16.5 +- .2	2
78.75-101.25 (E)	16.6 +- .3	6
101.25-123.75 (ESE)	17.4 +- 0.0	1
123.75-146.25 (SE)	17.0 +- .0	2
146.25-168.75 (SSE)	16.7 +- .2	2
168.75-191.25 (S)	16.3 +- .1	2
191.25-213.75 (SSW)	15.9 +- 1.4	2
213.75-236.25 (SW)	0.0 +- 0.0	0
236.25-258.75 (WSW)	0.0 +- 0.0	0
258.75-281.25 (W)	0.0 +- 0.0	0
281.25-303.75 (WNW)	0.0 +- 0.0	0
303.75-326.25 (NW)	0.0 +- 0.0	0
326.25-348.75 (NNW)	0.0 +- 0.0	0

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.6 +- .4	6
2-5	16.3 +- 1.0	9
>5	16.6 +- .3	4

## PALO VERDE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 820210-820416 66 DAYS  
 FIELD TIME 820216-820409 53 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE R
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std. Dev. +- Std. Dev.
001	74	23.0	20.6 +- 1.5	28.1 +- 2.0
002	92	20.8	20.5 +- .6	27.9 +- .8
003	89	15.1	19.5 +- 1.3	26.6 +- 1.8
004	103	10.7	20.1 +- .2	27.4 +- .3
005	140	7.40	21.1 +- .4	28.8 +- .5
006	142	3.10	20.1 +- .6	27.4 +- .8
007	162	2.60	20.5 +- .2	27.9 +- .2
008	168	2.60	19.9 +- .1	27.2 +- .1
009	193	2.60	20.5 +- .5	27.9 +- .7
010	215	3.10	20.7 +- .2	28.3 +- .3
011	200	1.70	21.1 +- .2	28.8 +- .2
012	214	1.00	20.6 +- .1	28.1 +- .1
013	242	0.70	21.6 +- .5	29.4 +- .7
014	263	0.60	20.8 +- .5	28.4 +- .6
015	295	0.60	20.1 +- .5	27.5 +- .6
016	325	1.00	21.3 +- .1	29.0 +- .1
017	347	1.80	20.8 +- 1.0	28.4 +- 1.3
018	0	2.40	23.1 +- .2	31.5 +- .3
019	18	1.50	20.8 +- .6	28.4 +- .8
020	37	2.00	20.4 +- .2	27.8 +- .3

## PALO VERDE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 820210-820416 66 DAYS  
 FIELD TIME 820216-820409 53 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R-14	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
021	58	2.30	22.6 +- .1		30.8 +- .2	
022	75	2.80	21.9 +- .3		29.9 +- .4	
023	93	4.40	21.4 +- .3		29.2 +- .4	
024	101	3.30	19.9 +- .1		27.2 +- .2	
025	346	2.90	21.5 +- .2		29.3 +- .3	
026	334	4.30	22.3 +- .1		30.4 +- .1	
027	333	7.90	21.3 +- .5		29.0 +- .7	
028	0	7.00	20.7 +- .4		28.2 +- .5	
029	9	4.20	21.8 +- .2		29.8 +- .3	
030	27	3.60	20.4 +- .1		27.8 +- .2	
031	49	3.50	22.0 +- 1.0		30.0 +- 1.4	
032	120	3.25	22.5 +- .3		30.7 +- .4	
050	CTL	TLD	12.5 +- .1		17.0 +- .2	

PALO VERDE  
FOR THE PERIOD 820210-820416 66 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	29.8 $\pm$ 1.6	3
11.25-33.75 (NNE)	28.1 $\pm$ .4	2
33.75-56.25 (NE)	28.9 $\pm$ 1.6	2
56.25-78.75 (ENE)	29.6 $\pm$ 1.3	3
78.75-101.25 (E)	27.7 $\pm$ 1.1	4
101.25-123.75 (ESE)	29.1 $\pm$ 2.4	2
123.75-146.25 (SE)	28.1 $\pm$ 1.0	2
146.25-168.75 (SSE)	27.5 $\pm$ .5	2
168.75-191.25 (S)	0.0 $\pm$ 0.0	0
191.25-213.75 (SSW)	28.4 $\pm$ .6	2
213.75-236.25 (SW)	28.2 $\pm$ .1	2
236.25-258.75 (WSW)	29.4 $\pm$ 0.0	1
258.75-281.25 (W)	28.4 $\pm$ 0.0	1
281.25-303.75 (WNW)	27.5 $\pm$ 0.0	1
303.75-326.25 (NW)	29.0 $\pm$ 0.0	1
326.25-348.75 (NNW)	29.3 $\pm$ .9	4

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	28.4 $\pm$ .6	9
2-5	29.1 $\pm$ 1.4	16
>5	28.0 $\pm$ .8	7

## PEACH BOTTOM

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820402 94 DAYS  
 FIELD TIME 820107-820329 82 DAYS

HRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	329	10.3	17.4 +- .6		16.7 +- .6	
003	22	4.70	19.6 +- .1		18.8 +- .1	
004	4	5.00	19.3 +- .0		18.5 +- .0	
005	345	4.10	18.5 +- .9		17.7 +- .9	
006	9	2.20	19.0 +- .1		18.2 +- .1	
007	22	2.50	19.3 +- .1		18.5 +- .1	
008	55	2.90	20.3 +- .5		19.5 +- .5	
009	45	2.00	19.7 +- .2		18.9 +- .2	
010	63	1.70	19.9 +- .4		19.1 +- .4	
011	97	2.00	18.7 +- .1		17.9 +- .1	
012	107	2.30	14.7 +- .3		14.1 +- .3	
013	72	5.00	16.2 +- .1		15.5 +- .1	
014	86	4.60	18.5 +- .3		17.7 +- .3	
015	110	4.30	19.9 +- .2		19.1 +- .1	
016	130	4.70	11.0 +- .5		10.5 +- .5	
017	150	9.00	17.8 +- .5		17.0 +- .5	
018	163	4.60	18.0 +- .8		17.2 +- .8	
019	184	3.90	19.6 +- .1		18.7 +- .1	
020	203	4.90	20.0 +- .1		19.1 +- .1	
021	197	2.30	19.8 +- .3		19.0 +- .3	



## PEACH BOTTOM

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820402 94 DAYS  
 FIELD TIME 820107-820329 82 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
022	183	1.70	18.7 +- .6		17.9 +- .6	
023	190	1.80	21.7 +- .9		20.8 +- .8	
024	222	1.80	19.6 +- .5		18.8 +- .5	
025	248	1.70	19.1 +- .3		18.2 +- .3	
026	268	1.80	20.7 +- .3		19.8 +- .3	
027	288	1.90	19.1 +- .9		18.3 +- .8	
028	323	1.80	18.1 +- 1.1		17.3 +- 1.1	
029	286	3.60	21.5 +- .5		20.6 +- .5	
030	264	4.00	20.4 +- .5		19.6 +- .5	
031	262	9.90	21.7 +- .7		20.8 +- .7	
033	235	9.40	15.7 +- .2		15.0 +- .2	
034	319	4.90	18.4 +- .5		17.6 +- .4	
035	151	0.70	18.9 +- .2		18.1 +- .2	
036	148	16.5	15.2 +- .3		14.6 +- .3	
037	148	16.5	16.2 +- .1		15.5 +- .1	
038	148	16.5	16.6 +- .2		15.9 +- .2	
050	CTL	TLD	9.4 +- .4		9.0 +- .4	

PEACH BOTTOM  
 FOR THE PERIOD 811230-820402 94 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	18.3 $\pm$ .2	2
11.25-33.75 (NNE)	18.6 $\pm$ .2	2
33.75-56.25 (NE)	19.2 $\pm$ .4	2
56.25-78.75 (ENE)	17.3 $\pm$ 2.5	2
78.75-101.25 (E)	17.8 $\pm$ .2	2
101.25-123.75 (ESE)	16.6 $\pm$ 3.5	2
123.75-146.25 (SE)	10.5 $\pm$ 0.0	1
146.25-168.75 (SSE)	16.4 $\pm$ 1.3	6
168.75-191.25 (S)	19.1 $\pm$ 1.5	3
191.25-213.75 (SSW)	19.1 $\pm$ .1	2
213.75-236.25 (SW)	16.9 $\pm$ 2.7	2
236.25-258.75 (WSW)	10.2 $\pm$ 0.0	1
258.75-281.25 (W)	20.0 $\pm$ .7	3
281.25-303.75 (WNW)	19.4 $\pm$ 1.6	2
303.75-326.25 (NW)	17.5 $\pm$ .2	2
326.25-348.75 (NNW)	17.2 $\pm$ .7	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	18.6 $\pm$ 1.0	11
2-5	17.8 $\pm$ 2.3	18
>5	16.5 $\pm$ 2.1	7

PILGRIM

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811223-820415 115 DAYS  
 FIELD TIME 820105-820406 92 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. De	
001	288	0.10	38.2 +- .8		29.9 +- .6	
002	310	0.20	21.5 +- .7		16.8 +- .6	
005	289	0.70	21.9 +- .3		17.2 +- .2	
006	261	1.70	20.6 +- .1		16.1 +- .1	
007	270	0.50	22.7 +- .4		17.7 +- .3	
008	247	0.30	20.9 +- .2		16.4 +- .1	
009	224	0.30	18.9 +- .1		14.8 +- .1	
010	205	0.30	24.8 +- .0		19.4 +- .0	
011	184	0.03	21.0 +- .1		16.4 +- .1	
012	159	0.40	26.1 +- .4		20.4 +- .3	
013	146	0.70	17.3 +- .2		13.6 +- .2	
014	155	1.00	19.8 +- .5		15.5 +- .4	
016	136	1.30	23.8 +- .0		18.6 +- .0	
018	212	0.80	23.2 +- 1.0		18.1 +- .8	
019	202	1.00	16.6 +- .3		13.0 +- .3	
021	256	1.60	19.8 +- .1		15.5 +- .1	
022	130	2.50	19.1 +- .0		14.9 +- .0	
023	146	3.40	17.8 +- .6		13.9 +- .5	
025	168	1.50	17.8 +- .6		13.9 +- .4	
026	180	1.30	18.3 +- .3		14.3 +- .3	

PILGRIM

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820415 115 DAYS  
 FIELD TIME 820105-820406 92 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RA	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
027	231	1.80	18.2 +- .3		14.3 +- .3	
030	153	2.20	20.5 +- .5		16.1 +- .4	
031	179	2.50	17.8 +- .1		13.9 +- .1	
032	217	2.60	16.8 +- .1		13.1 +- .1	
033	234	2.50	17.8 +- .3		14.0 +- .2	
037	264	4.20	20.1 +- .0		15.7 +- .0	
038	152	3.50	24.1 +- .3		18.9 +- .2	
039	155	5.30	16.3 +- .1		12.8 +- .1	
040	272	4.60	18.5 +- .6		14.5 +- .5	
042	281	4.60	18.8 +- .6		14.7 +- .5	
043	291	5.80	21.0 +- .1		16.4 +- .1	
045	-	-	15.9 +- .4		12.4 +- .3	
047	301	26.2	17.8 +- .0		13.9 +- .0	
048	301	26.2	19.9 +- .4		15.6 +- .3	
049	301	26.2	19.0 +- .7		14.9 +- .6	
050	CTL	TLD	17.1 +- .0		13.3 +- .0	

COMMENTS:

STATION 1 IS ON LICENSEE PROPERTY (PILGRIM OVERLOOK AREA).  
 ACCESS IS CONTROLLED

PILGRIM  
FOR THE PERIOD 811222-820415 115 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 $\pm$ 0.0	0
11.25-33.75 (NNE)	0.0 $\pm$ 0.0	0
33.75-56.25 (NE)	0.0 $\pm$ 0.0	0
56.25-78.75 (ENE)	0.0 $\pm$ 0.0	0
78.75-101.25 (E)	0.0 $\pm$ 0.0	0
101.25-123.75 (ESE)	0.0 $\pm$ 0.0	0
123.75-146.25 (SE)	15.3 $\pm$ 2.3	4
146.25-168.75 (SSE)	16.3 $\pm$ 2.9	6
168.75-191.25 (S)	14.9 $\pm$ 1.3	3
191.25-213.75 (SSW)	18.8 $\pm$ .9	2
213.75-236.25 (SW)	13.8 $\pm$ .7	5
236.25-258.75 (WSW)	15.9 $\pm$ .6	2
258.75-281.25 (W)	15.8 $\pm$ 1.3	5
281.25-303.75 (WNW)	18.0 $\pm$ 5.9	6
303.75-326.25 (NW)	16.8 $\pm$ 0.0	1
326.25-348.75 (NNW)	0.0 $\pm$ 0.0	0

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.9 $\pm$ 3.7	19
2-5	15.0 $\pm$ 1.6	10
>5	14.7 $\pm$ 1.4	5

## PRAIRIE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820413 113 DAYS  
 FIELD TIME 820114-820409 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R <sub>h</sub>	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
100	CTL	TLD	14.4 +- .4		11.4 +- .3	
51	312	17.3	20.6 +- .1		16.4 +- .1	
52	310	15.2	20.6 +- 1.2		16.4 +- .9	
53	310	15.2	21.2 +- .4		16.9 +- .3	
54	308	5.50	20.9 +- .7		16.6 +- .6	
55	297	4.10	19.3 +- .1		15.3 +- .1	
56	287	1.30	20.7 +- .3		16.5 +- .2	
57	313	0.80	20.0 +- .7		15.9 +- .6	
58	244	0.50	20.7 +- .1		16.4 +- .0	
59	194	0.60	22.4 +- .2		17.8 +- .2	
60	155	0.50	22.2 +- 1.1		17.7 +- .9	
61	129	1.60	19.2 +- .3		15.3 +- .2	
63	217	0.60	20.2 +- 1.0		16.1 +- .8	
64	178	0.80	21.4 +- .0		17.0 +- .0	
65	272	1.90	20.6 +- .3		16.4 +- .2	
66	262	4.60	19.4 +- .4		15.5 +- .3	
67	250	4.30	21.3 +- .9		16.9 +- .8	
68	225	4.10	19.4 +- .3		15.4 +- .3	
69	233	6.70	18.5 +- .4		14.8 +- .3	
70	200	4.90	22.3 +- 1.1		17.7 +- .9	

## PRAIRIE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820413 113 DAYS  
 FIELD TIME 820114-820409 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
71	187	4.70	22.1 +- .0		17.6 +- .0	
72	160	4.40	22.8 +- .3		18.2 +- .3	
73	140	4.70	20.6 +- .7		16.4 +- .6	
74	131	6.60	21.5 +- 0.0		17.1 +- 0.0	
75	117	4.90	19.9 +- .3		15.9 +- .2	
76	88	1.90	20.6 +- .7		16.4 +- .6	
77	69	1.80	22.5 +- .4		17.9 +- .3	
78	47	1.60	21.1 +- .6		16.8 +- .5	
79	19	1.50	20.9 +- .2		16.6 +- .1	
80	356	1.90	20.9 +- .6		16.6 +- .5	
81	346	2.40	19.7 +- .1		15.7 +- .0	
82	340	3.80	21.9 +- .5		17.4 +- .4	
83	8	4.60	24.3 +- .1		19.3 +- .1	
84	17	4.70	21.1 +- .6		16.8 +- .5	
85	45	10.5	20.7 +- .8		16.4 +- .6	
86	48	4.70	21.9 +- .4		17.5 +- .4	
87	61	4.20	21.5 +- .3		17.1 +- .2	
88	86	4.90	20.9 +- .8		16.7 +- .6	
89	107	9.10	20.4 +- .4		16.3 +- .3	
90	111	3.70	21.1 +- .3		16.8 +- .2	

PRAIRIE ISLAND  
 FOR THE PERIOD 811222-820413 113 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	18.0 +- 1.9	2
11.25-33.75 (NNE)	16.7 +- .1	2
33.75-56.25 (NE)	16.9 +- .5	3
56.25-78.75 (ENE)	17.5 +- .6	2
78.75-101.25 (E)	16.5 +- .2	2
101.25-123.75 (ESE)	16.3 +- .5	3
123.75-146.25 (SE)	16.3 +- .9	3
146.25-168.75 (SSE)	17.9 +- .4	2
168.75-191.25 (S)	17.3 +- .4	2
191.25-213.75 (SSW)	17.8 +- .1	2
213.75-236.25 (SW)	15.4 +- .7	3
236.25-258.75 (WSW)	16.7 +- .3	2
258.75-281.25 (W)	15.9 +- .7	2
281.25-303.75 (WNW)	15.9 +- .8	2
303.75-326.25 (NW)	16.4 +- .3	5
326.25-348.75 (NNW)	16.6 +- 1.2	2

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.7 +- .7	14
2-5	16.8 +- 1.1	17
>5	16.4 +- .7	8



QUAD CITIES

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820407 112 DAYS  
 FIELD TIME 820123-820326 63 DAYS

HRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RA mR/Std. Dev.	
	AZIMUTH (deg.)	DIST (mi.)	+-	Std. Dev.	+-	Std. Dev.
100	CTL	TLD	24.4	+- .4	19.6	+- .3
52	17	1.20	21.2	+- .8	17.1	+- .6
53	45	1.70	18.6	+- .1	15.0	+- .1
54	65	1.10	21.5	+- .9	17.3	+- .7
55	90	0.80	18.9	+- 1.2	15.2	+- .9
56	136	1.10	20.0	+- .8	16.1	+- .7
57	175	1.80	20.5	+- .2	16.5	+- .1
58	157	2.00	19.6	+- .7	15.8	+- .5
59	186	3.10	20.0	+- 0.0	16.1	+- 0.0
60	188	7.70	21.3	+- .4	17.1	+- .3
61	156	4.20	19.2	+- .5	15.4	+- .4
62	142	4.80	20.4	+- .6	16.4	+- .5
63	121	3.30	20.5	+- .2	16.5	+- .1
64	114	2.00	19.6	+- .8	15.7	+- .6
65	86	2.80	19.9	+- .5	16.0	+- .4
66	62	4.40	20.8	+- .5	16.7	+- .4
67	48	6.10	19.5	+- .4	15.7	+- .3
68	39	8.80	22.0	+- .3	17.7	+- .3
70	16	4.30	15.1	+- .3	12.1	+- .3
71	358	4.20	19.5	+- .1	15.7	+- .1

## QUAD CITIES

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820407 112 DAYS  
 FIELD TIME 820123-820326 63 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RATE mR/Std. Qtr.	
	AZIMUTH (deg.)	DIST (mi.)	+- Std. Dev.		+- Std. Dev.	
72	336	4.10	20.1	+- .2	16.2	+- .2
73	337	5.70	20.3	+- .5	16.3	+- .4
74	317	4.40	20.1	+- .2	16.1	+- .2
75	295	4.10	20.0	+- .1	16.1	+- .1
76	282	6.90	17.5	+- .7	14.0	+- .6
77	265	4.30	19.6	+- .1	15.7	+- .1
78	253	4.00	19.7	+- .5	15.8	+- .4
79	356	2.80	20.0	+- .2	16.0	+- .1
80	335	1.90	21.7	+- .3	17.5	+- .2
81	317	2.60	22.0	+- .1	17.7	+- .1
84	248	2.20	19.4	+- .4	15.5	+- .3
85	229	2.60	19.1	+- .2	15.3	+- .1
86	204	3.40	19.3	+- .3	15.5	+- .2
87	194	8.30	19.6	+- .2	15.8	+- .2
88	224	4.60	20.1	+- .6	16.2	+- .5
89	301	15.3	19.1	+- 1.0	15.3	+- .8
90	301	15.3	20.2	+- .0	16.3	+- .0
91	301	15.4	21.2	+- .6	17.0	+- .5

QUAD CITIES  
FOR THE PERIOD 811217-820407 112 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	15.8 $\pm$ .2	2
11.25-33.75 (NNE)	14.6 $\pm$ 3.5	2
33.75-56.25 (NE)	16.1 $\pm$ 1.4	3
56.25-78.75 (ENE)	17.0 $\pm$ .4	2
78.75-101.25 (E)	15.6 $\pm$ .6	2
101.25-123.75 (ESE)	16.1 $\pm$ .5	2
123.75-146.25 (SE)	16.2 $\pm$ .2	2
146.25-168.75 (SSE)	15.6 $\pm$ .2	2
168.75-191.25 (S)	16.6 $\pm$ .5	3
191.25-213.75 (SSW)	15.6 $\pm$ .2	2
213.75-236.25 (SW)	15.7 $\pm$ .6	2
236.25-258.75 (WSW)	15.7 $\pm$ .2	2
258.75-281.25 (W)	15.7 $\pm$ 0.0	1
281.25-303.75 (WNW)	15.7 $\pm$ 1.1	5
303.75-326.25 (NW)	16.9 $\pm$ 1.1	2
326.25-348.75 (NNW)	16.6 $\pm$ .7	3

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.2 $\pm$ .9	9
2-5	15.8 $\pm$ 1.0	19
>5	16.1 $\pm$ 1.1	9

## RANCHO SECO

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811216-820503 139 DAYS  
 FIELD TIME 820122-820405 74 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE Rf	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev	
001	288	15.5	26.5 +- 1.1		17.2 +- .7	
002	239	11.8	28.2 +- .4		18.3 +- .2	
004	149	9.90	28.6 +- .0		18.5 +- .0	
005	108	8.20	31.2 +- .8		20.2 +- .5	
006	86	10.2	25.0 +- .0		16.2 +- .0	
007	83	9.70	26.1 +- 2.4		16.9 +- 1.6	
008	37	7.10	27.0 +- .3		17.5 +- .2	
009	65	0.80	26.6 +- .1		17.2 +- .1	
010	43	0.70	25.7 +- .4		16.6 +- .2	
011	92	0.20	25.4 +- .0		16.4 +- .0	
012	131	1.60	25.0 +- .0		16.2 +- .0	
013	358	0.60	25.7 +- .2		16.6 +- .1	
014	323	0.70	25.2 +- .4		16.3 +- .2	
015	151	0.70	23.5 +- .2		15.2 +- .2	
016	219	0.90	25.2 +- .3		16.3 +- .2	
017	245	1.50	25.6 +- 1.2		16.6 +- .8	
018	254	2.30	23.1 +- 1.3		14.9 +- .8	
019	323	7.00	27.2 +- .1		17.6 +- .1	
020	309	6.30	24.9 +- .1		16.1 +- .1	
021	279	5.70	25.2 +- .2		16.3 +- .1	

RANCHO SECO

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811216-820503 139 DAYS  
 FIELD TIME 820122-820405 74 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev.	+- Std. Dev.
022	244	6.40	25.8 +- .8		16.7 +- .5	
023	217	4.60	25.6 +- .2		16.6 +- .1	
024	350	10.5	27.3 +- .6		17.7 +- .4	
025	318	17.3	25.2 +- .4		16.3 +- .2	
026	311	21.9	26.3 +- .3		17.0 +- .2	
027	306	26.8	26.4 +- .1		17.1 +- .1	
028	306	26.8	28.0 +- .1		18.1 +- .1	
029	306	27.0	19.1 +- .4		12.4 +- .2	
030	306	27.0	18.5 +- .1		11.9 +- .0	

RANCHO SECO  
 FOR THE PERIOD 811216-820503 139 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	17.1 +- .7	2
11.25-33.75 (NNE)	0.0 +- 0.0	0
33.75-56.25 (NE)	17.1 +- .6	2
56.25-78.75 (ENE)	17.2 +- 0.0	1
78.75-101.25 (E)	16.5 +- .4	3
101.25-123.75 (ESE)	20.2 +- 0.0	1
123.75-146.25 (SE)	16.2 +- 0.0	1
146.25-168.75 (SSE)	16.8 +- 2.3	2
168.75-191.25 (S)	0.0 +- 0.0	0
191.25-213.75 (SSW)	0.0 +- 0.0	0
213.75-236.25 (SW)	16.4 +- .2	2
236.25-258.75 (WSW)	16.6 +- 1.4	4
258.75-281.25 (W)	16.3 +- 0.0	1
281.25-303.75 (WNW)	17.2 +- 0.0	1
303.75-326.25 (NW)	15.9 +- 2.2	9
326.25-348.75 (NNW)	0.0 +- 0.0	0

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.4 +- .5	9
2-5	15.7 +- 1.1	2
>5	16.8 +- 2.0	18

## ROBINSON

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820412 117 DAYS  
 FIELD TIME 820104-820405 92 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE R	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	191	0.20	24.4 +- 1.1		18.7 +- .8	
002	151	1.90	28.4 +- .8		21.9 +- .6	
003	134	2.00	27.6 +- .6		21.2 +- .5	
004	119	1.90	23.4 +- .8		18.0 +- .6	
005	89	2.10	26.5 +- .8		20.4 +- .6	
006	65	1.00	27.0 +- .9		20.7 +- .7	
007	46	1.80	26.7 +- .4		20.5 +- .3	
008	27	1.90	26.7 +- .3		20.6 +- .2	
009	22	3.50	24.7 +- .7		19.0 +- .5	
010	0	5.00	27.0 +- .0		20.8 +- .0	
011	51	4.80	28.4 +- .1		21.8 +- .1	
012	67	4.10	24.0 +- .4		18.5 +- .3	
014	109	5.00	25.4 +- .1		19.5 +- .1	
015	118	4.80	23.5 +- .4		18.1 +- .3	
016	138	5.30	18.1 +- .1		13.9 +- .1	
017	115	17.1	24.6 +- .1		18.9 +- .1	
018	199	12.6	24.6 +- .5		18.9 +- .4	
019	208	4.80	30.9 +- .3		23.7 +- .3	
020	225	4.00	28.2 +- .5		21.7 +- .4	
021	178	4.60	22.8 +- .8		17.6 +- .6	

## ROBINSON

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 011217-020412 117 DAYS  
 FIELD TIME 020104-020405 92 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RATE mR/Std. Dev.	
	AZIMUTH (deg.)	DIST (mi.)	+- Std. Dev.		+- Std. Dev.	
022	167	3.70	25.1	+- .1	19.3	+- .1
023	181	2.30	25.7	+- .2	19.7	+- .1
024	194	2.00	27.4	+- .6	21.1	+- .5
025	228	2.10	26.9	+- .2	20.7	+- .2
026	245	1.50	16.7	+- .2	12.8	+- .1
027	273	1.80	23.3	+- .2	17.9	+- .1
028	287	2.00	23.8	+- .1	18.3	+- .1
029	311	1.60	24.4	+- .1	18.8	+- .1
030	334	1.90	25.7	+- .6	19.7	+- .5
032	333	4.00	24.8	+- .8	19.1	+- .6
033	318	4.70	26.6	+- .7	20.5	+- .6
034	310	6.90	26.0	+- .8	20.0	+- .6
035	295	4.00	28.0	+- .1	21.5	+- .1
036	269	4.80	23.7	+- .2	18.2	+- .1
037	252	4.60	25.7	+- .1	19.8	+- .1
038	274	10.7	23.8	+- .0	18.3	+- .0
039	286	15.3	24.5	+- .6	18.8	+- .4
040	289	16.5	24.6	+- .2	18.9	+- .2
041	291	17.5	24.2	+- .4	18.6	+- .3



ROBINSON  
FOR THE PERIOD 811217-820412 117 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	20.8 $\pm$ 0.0	1
11.25-33.75 (NNE)	19.8 $\pm$ 1.1	2
33.75-56.25 (NE)	21.2 $\pm$ .9	2
56.25-78.75 (ENE)	19.6 $\pm$ 1.6	2
78.75-101.25 (E)	20.4 $\pm$ 0.0	1
101.25-123.75 (ESE)	18.6 $\pm$ .7	4
123.75-146.25 (SE)	17.6 $\pm$ 5.2	2
146.25-168.75 (SSE)	20.6 $\pm$ 1.8	2
168.75-191.25 (S)	18.7 $\pm$ 1.1	3
191.25-213.75 (SSW)	21.2 $\pm$ 2.4	3
213.75-236.25 (SW)	21.2 $\pm$ .7	2
236.25-258.75 (WSW)	16.3 $\pm$ 4.9	2
258.75-281.25 (W)	18.1 $\pm$ .2	3
281.25-303.75 (WNW)	19.2 $\pm$ 1.3	5
303.75-326.25 (NW)	19.8 $\pm$ .9	3
326.25-348.75 (NNW)	19.4 $\pm$ .5	2

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	19.2 $\pm$ 2.3	13
2-5	20.0 $\pm$ 1.6	18
>5	18.3 $\pm$ 1.8	8

## ST. LUCIE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811218-820409 113 DAYS  
 FIELD TIME 820104-820402 89 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Qtr +- Std. Dev.	
001	20	0.30	16.1 +- .5		12.8 +- .4	
002	45	0.20	15.9 +- .2		12.7 +- .1	
004	92	0.30	16.4 +- .4		13.1 +- .4	
006	143	1.10	14.4 +- .5		11.4 +- .4	
007	150	2.00	15.5 +- 1.0		12.4 +- .8	
008	154	4.70	17.4 +- .4		13.9 +- .4	
009	152	22.7	17.0 +- .7		13.6 +- .6	
011	152	22.7	18.2 +- .5		14.5 +- .4	
012	168	14.1	16.7 +- .1		13.3 +- .0	
013	185	10.1	16.5 +- .8		13.2 +- .6	
014	183	11.3	21.2 +- .7		16.9 +- .5	
015	170	8.00	16.9 +- .4		13.5 +- .4	
016	196	7.00	17.8 +- 1.0		14.1 +- .8	
017	229	7.90	14.1 +- 1.6		11.2 +- 1.3	
018	250	6.60	14.0 +- 1.1		11.2 +- .9	
019	247	4.80	16.8 +- .1		13.4 +- .1	
020	229	5.00	16.7 +- 1.5		13.3 +- 1.2	
021	208	3.80	14.5 +- .3		11.6 +- .2	
022	187	3.80	16.0 +- .2		12.8 +- .2	
023	203	2.60	16.5 +- .4		13.1 +- .3	

## ST. LUCIE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811218-820409 113 DAYS  
 FIELD TIME 820104-820402 89 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATIO
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std. Dev. +- Std. Dev.
024	245	1.90	14.6 +- 1.2	11.6 +- .9
025	280	2.20	16.7 +- .4	13.3 +- .3
026	299	3.10	17.8 +- .5	14.2 +- .4
027	305	3.80	16.9 +- .0	13.5 +- .0
028	276	4.00	15.8 +- .4	12.6 +- .3
029	293	5.80	16.5 +- .1	13.2 +- .1
030	316	7.70	16.2 +- 1.0	12.9 +- .8
032	300	10.9	16.2 +- .2	12.9 +- .2
033	322	8.70	18.5 +- .3	14.7 +- .2
034	339	8.80	15.7 +- .3	12.5 +- .2
035	342	2.90	15.6 +- .3	12.5 +- .2
036	346	1.90	16.7 +- .2	13.3 +- .1
037	353	1.00	17.1 +- .5	13.7 +- .4
038	226	2.00	16.4 +- .3	13.0 +- .2
050	CTL	TLD	11.8 +- .3	9.4 +- .3

ST. LUCIE  
FOR THE PERIOD 811218-820409 113 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	13.7 $\pm$ 0.0	1
11.25-33.75 (NNE)	12.8 $\pm$ 0.0	1
33.75-56.25 (NE)	12.7 $\pm$ 0.0	1
56.25-78.75 (ENE)	0.0 $\pm$ 0.0	0
78.75-101.25 (E)	13.1 $\pm$ 0.0	1
101.25-123.75 (ESE)	0.0 $\pm$ 0.0	0
123.75-146.25 (SE)	11.4 $\pm$ 0.0	1
146.25-168.75 (SSE)	13.5 $\pm$ .8	5
168.75-191.25 (S)	14.1 $\pm$ 1.9	4
191.25-213.75 (SSW)	12.8 $\pm$ 1.3	3
213.75-236.25 (SW)	12.5 $\pm$ 1.1	3
236.25-258.75 (WSW)	12.0 $\pm$ 1.2	3
258.75-281.25 (W)	13.0 $\pm$ .5	2
281.25-303.75 (WNW)	13.4 $\pm$ .6	3
303.75-326.25 (NW)	13.7 $\pm$ .9	3
326.25-348.75 (NNW)	12.8 $\pm$ .5	3

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	12.7 $\pm$ .7	9
2-5	13.1 $\pm$ .7	11
>5	13.4 $\pm$ 1.4	14

## SALEM/HOPE CREEK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811218-820402 106 DAYS  
 FIELD TIME 820105-820330 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	87	3.30	19.5 +- .2		16.6 +- .2	
002	79	3.40	18.4 +- .1		15.6 +- .1	
003	72	3.60	20.1 +- .2		17.1 +- .2	
004	58	4.20	20.7 +- .6		17.6 +- .5	
005	54	4.90	20.4 +- .1		17.3 +- .4	
006	68	8.60	18.6 +- .4		15.8 +- .4	
007	40	5.70	20.5 +- .1		17.4 +- .1	
008	116	11.8	20.0 +- .2		17.0 +- .2	
010	8	5.80	19.3 +- .4		16.4 +- .3	
011	15	8.10	18.7 +- .5		15.9 +- .5	
012	24	8.60	18.3 +- 1.1		15.6 +- .9	
013	49	8.60	19.1 +- .1		16.2 +- .1	
015	11	6.40	19.3 +- .5		16.4 +- .4	
016	CTL	TLD	15.3 +- .3		13.0 +- .3	

THESE STATIONS ARE LOCATED IN NEW JERSEY.  
 THE DOSIMETERS IN NEW JERSEY AND DELAWARE ARE DISTRIBUTED  
 AND COLLECTED SEPARATELY.  
 INDIVIDUAL REPORTS ARE PREPARED FOR EACH STATE.

SALEM/HOPE CREEK  
 FOR THE PERIOD 811218-820402 106 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.4 $\pm$ .0	2
11.25-33.75 (NNE)	15.7 $\pm$ .2	2
33.75-56.25 (NE)	17.0 $\pm$ .7	3
56.25-78.75 (ENE)	16.8 $\pm$ .9	3
78.75-101.25 (E)	16.1 $\pm$ .7	2
101.25-123.75 (ESE)	17.0 $\pm$ 0.0	1
123.75-146.25 (SE)	0.0 $\pm$ 0.0	0
146.25-168.75 (SSE)	0.0 $\pm$ 0.0	0
168.75-191.25 (S)	0.0 $\pm$ 0.0	0
191.25-213.75 (SSW)	0.0 $\pm$ 0.0	0
213.75-236.25 (SW)	0.0 $\pm$ 0.0	0
236.25-258.75 (WSW)	0.0 $\pm$ 0.0	0
258.75-281.25 (W)	0.0 $\pm$ 0.0	0
281.25-303.75 (WNW)	0.0 $\pm$ 0.0	0
303.75-326.25 (NW)	0.0 $\pm$ 0.0	0
326.25-348.75 (NNW)	0.0 $\pm$ 0.0	0

DISTANCE (m) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	0.0 $\pm$ 0.0	0
2-5	16.8 $\pm$ .8	5
>5	16.3 $\pm$ .6	8

## SALEM/HOPE CREEK

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811218-820401 105 DAYS  
 FIELD TIME 811229-820329 91 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.0tr. +- Std. Dev.	
017	331	4.20	21.8 +- .2		18.7 +- .1	
018	320	3.80	18.3 +- .2		15.7 +- .2	
019	299	3.40	21.9 +- .3		18.7 +- .3	
020	330	9.50	23.6 +- .7		20.3 +- .6	
021	276	3.60	23.1 +- .1		19.8 +- .1	
023	257	4.40	22.4 +- .0		19.2 +- .0	
024	240	4.40	21.5 +- 1.3		18.4 +- 1.1	
025	217	4.90	16.3 +- .8		14.0 +- .7	
026	204	3.90	21.9 +- .1		18.7 +- .1	
027	188	4.20	19.9 +- .4		17.0 +- .3	
028	319	20.0	24.7 +- .8		21.1 +- .7	
029	265	6.70	20.3 +- .2		17.4 +- .2	
030	353	12.5	21.3 +- .4		18.2 +- .4	
031	0	18.0	21.8 +- .2		18.7 +- .2	
032	338	8.10	15.3 +- 1.1		13.1 +- .9	
033	265	9.80	21.5 +- .3		18.5 +- .2	
034	270	13.8	22.2 +- .5		19.0 +- .4	
050	CTL	TLD	9.3 +- .8		8.0 +- .7	

THESE STATIONS ARE LOCATED IN DELAWARE.  
 THE DOSIMETERS IN NEW JERSEY AND DELAWARE ARE DISTRIBUTED  
 AND COLLECTED SEPARATELY.  
 INDIVIDUAL REPORTS ARE PREPARED FOR EACH STATE.

SALEM/HOPE CREEK  
 FOR THE PERIOD 811218-820401 105 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	18.5 $\pm$ .3	2
11.25-33.75 (NNE)	0.0 $\pm$ 0.0	0
33.75-56.25 (NE)	0.0 $\pm$ 0.0	0
56.25-78.75 (ENE)	0.0 $\pm$ 0.0	0
78.75-101.25 (E)	0.0 $\pm$ 0.0	0
101.25-123.75 (ESE)	0.0 $\pm$ 0.0	0
123.75-146.25 (SE)	0.0 $\pm$ 0.0	0
146.25-168.75 (SSE)	0.0 $\pm$ 0.0	0
168.75-191.25 (S)	17.0 $\pm$ 0.0	1
191.25-213.75 (SSW)	18.7 $\pm$ 0.0	1
213.75-236.25 (SW)	14.0 $\pm$ 0.0	1
236.25-258.75 (WSW)	18.8 $\pm$ .6	2
258.75-281.25 (W)	18.6 $\pm$ 1.0	4
281.25-303.75 (WNW)	18.7 $\pm$ 0.0	1
303.75-326.25 (NW)	18.4 $\pm$ 3.8	2
326.25-348.75 (NNW)	17.4 $\pm$ 3.7	3

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	0.0 $\pm$ 0.0	0
2-5	17.8 $\pm$ 1.9	9
>5	18.3 $\pm$ 2.4	8



## SAN ONOFRE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811215-820503 140 DAYS  
 FIELD TIME 820111-820324 73 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dtr. +- Std. Dev.	
001	346	35.0	34.2 +- .9		22.0 +- .6	
002	346	35.0	33.3 +- .8		21.4 +- .5	
004	327	11.2	27.9 +- .4		18.0 +- .2	
005	308	14.0	30.5 +- 1.9		19.6 +- 1.2	
006	307	10.0	29.2 +- .3		18.8 +- .2	
007	318	6.30	30.9 +- .9		19.8 +- .6	
008	322	5.10	31.6 +- 1.2		20.3 +- .8	
010	331	3.30	31.8 +- .7		20.5 +- .4	
011	300	2.60	31.6 +- .2		20.3 +- .1	
012	285	0.50	26.8 +- .4		17.2 +- .3	
014	320	1.70	29.9 +- .5		19.2 +- .3	
015	333	1.20	31.8 +- .5		20.4 +- .3	
016	30	1.90	30.6 +- .2		19.7 +- .1	
017	8	1.30	28.5 +- .0		18.3 +- .0	
018	39	2.40	32.4 +- 1.3		20.8 +- .8	
019	55	2.90	30.7 +- 1.0		19.7 +- .7	
020	77	4.10	26.9 +- .2		17.3 +- .1	
021	87	4.70	32.8 +- 1.5		21.1 +- 1.0	
022	25	3.40	31.7 +- .6		20.3 +- .4	
024	25	0.40	30.8 +- 1.0		19.8 +- .6	

SAN ONOFRE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811215-820503 140 DAYS  
FIELD TIME 820111-820324 73 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RF	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
025	81	0.40	30.3 +- .1		19.5 +- .1	
026	123	2.10	28.8 +- .6		18.5 +- .4	
027	130	8.60	29.0 +- .6		18.6 +- .4	
028	99	8.90	29.1 +- .2		18.7 +- .2	
029	135	10.9	27.6 +- 1.0		17.7 +- .7	
03	346	35.0	34.9 +- .5		22.4 +- .3	
030	126	2.00	26.2 +- .6		16.8 +- .4	
031	128	3.70	30.0 +- .3		19.3 +- .2	
032	140	22.0	30.2 +- .0		19.4 +- .0	
033	120	26.0	28.0 +- .5		18.0 +- .3	
050	CTL	TLD	21.3 +- .1		13.7 +- .1	

SAN ONOFRE  
FOR THE PERIOD 811215-820503 140 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	18.3 +- 0.0	1
11.25-33.75 (NNE)	19.8 +- .4	3
33.75-56.25 (NE)	20.3 +- .8	2
56.25-78.75 (ENE)	17.3 +- 0.0	1
78.75-101.25 (E)	19.8 +- 1.2	3
101.25-123.75 (ESE)	18.2 +- .4	2
123.75-146.25 (SE)	18.4 +- 1.1	5
146.25-168.75 (SSE)	0.0 +- 0.0	0
168.75-191.25 (S)	0.0 +- 0.0	0
191.25-213.75 (SSW)	0.0 +- 0.0	0
213.75-236.25 (SW)	0.0 +- 0.0	0
236.25-258.75 (WSW)	0.0 +- 0.0	0
258.75-281.25 (W)	0.0 +- 0.0	0
281.25-303.75 (WNW)	18.8 +- 2.2	2
303.75-326.25 (NW)	19.5 +- .6	5
326.25-348.75 (NNW)	20.8 +- 1.6	6

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	18.9 +- 1.3	8
2-5	19.8 +- 1.2	9
>5	19.6 +- 1.5	13

SEQUOYAH

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 081122Z-020406 106 DAYS  
 FIELD TIME 020104-020330 86 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE(mR)		EXPOSURE RATE mR/Std.Qtr.	
	AZIMUTH/ (deg.)	DIST (mi.)	+ -	Std. Dev.	+ -	Std. Dev.
100	CTL	TLD	21.1	+ - .3	17.9	+ - .2
52	206	13.1	27.5	+ - .2	23.3	+ - .2
53	203	3.90	32.0	+ - .2	27.1	+ - .2
55	181	1.40	37.6	+ - .6	31.9	+ - .5
56	153	1.50	29.4	+ - .1	25.0	+ - .1
57	139	1.90	28.9	+ - .1	24.6	+ - .1
58	115	1.80	27.1	+ - .1	23.0	+ - .1
59	84	1.60	26.0	+ - .4	22.1	+ - .3
60	66	1.30	27.7	+ - .8	23.5	+ - .7
61	45	1.50	29.0	+ - 1.1	24.6	+ - .9
62	14	2.00	30.4	+ - .5	25.8	+ - .4
63	2	2.10	31.2	+ - .2	26.5	+ - .1
64	19	3.30	28.2	+ - .4	23.9	+ - .3
66	65	4.90	27.8	+ - .4	23.6	+ - .3
67	90	3.90	27.6	+ - .6	23.5	+ - .5
68	111	3.40	27.9	+ - .2	23.7	+ - .2
69	135	3.40	28.4	+ - .1	24.1	+ - .1
70	158	3.40	25.6	+ - .2	21.7	+ - .2
71	184	4.60	26.2	+ - .3	22.2	+ - .3
72	233	10.7	27.5	+ - .4	23.3	+ - .3

SEQUOYAH

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820406 106 DAYS  
 FIELD TIME 820104-820330 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
73	219	4.90	29.7 +- .1		25.2 +- .1	
74	241	4.30	27.8 +- 1.9		23.6 +- 1.6	
75	235	2.00	24.5 +- .1		20.8 +- .1	
76	248	1.50	26.6 +- .4		22.6 +- .4	
77	266	1.20	26.9 +- .7		22.8 +- .6	
78	291	1.20	25.9 +- .2		21.9 +- .2	
79	309	1.20	27.7 +- .7		23.5 +- .6	
80	330	0.50	28.7 +- .6		24.4 +- .5	
81	339	1.80	25.8 +- .4		21.9 +- .4	
82	355	4.90	27.1 +- .3		23.0 +- .2	
83	334	3.60	17.5 +- .2		14.8 +- .2	
84	317	4.40	25.2 +- .3		21.4 +- .2	
85	277	5.60	31.0 +- .6		26.3 +- .5	
86	283	3.60	26.6 +- .2		22.5 +- .1	
87	273	4.40	27.1 +- .1		23.0 +- .1	
88	302	19.0	25.5 +- .1		21.7 +- .1	
89	290	18.0	27.5 +- .6		23.3 +- .5	
90	289	18.0	26.8 +- .6		22.8 +- .5	
91	318	6.10	30.2 +- .5		25.6 +- .5	

SEQUOYAH  
 FOR THE PERIOD 811222-820406 106 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	24.7 $\pm$ 2.5	2
11.25-33.75 (NNE)	24.9 $\pm$ 1.3	2
33.75-56.25 (NE)	24.6 $\pm$ 0.0	1
56.25-78.75 (ENE)	23.6 $\pm$ .0	2
78.75-101.25 (E)	22.8 $\pm$ 1.0	2
101.25-123.75 (ESE)	23.3 $\pm$ .5	2
123.75-146.25 (SE)	24.3 $\pm$ .3	2
146.25-168.75 (SSE)	23.4 $\pm$ 2.3	2
168.75-191.25 (S)	27.1 $\pm$ 6.0	2
191.25-213.75 (SSW)	25.2 $\pm$ 2.7	2
213.75-236.25 (SW)	23.1 $\pm$ 2.2	3
236.25-258.75 (WSW)	23.1 $\pm$ .7	2
258.75-281.25 (W)	24.0 $\pm$ 1.9	3
281.25-303.75 (WNW)	22.5 $\pm$ .7	5
303.75-326.25 (NW)	23.5 $\pm$ 2.1	3
326.25-348.75 (NNW)	20.4 $\pm$ 4.9	3

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	23.9 $\pm$ 2.6	15
2-5	23.1 $\pm$ 2.7	16
>5	23.8 $\pm$ 1.6	7

## SUMMER

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820412 117 DAYS  
 FIELD TIME 820108-820402 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE (mR) +- Std. Dev.		mR/Std. Qtr. +- Std. Dev.	
001	199	3.70	31.6 +- 1.4		24.3 +- 1.1	
002	111	1.00	30.4 +- .4		23.4 +- .3	
003	340	4.10	32.2 +- .2		24.8 +- .2	
004	192	9.30	30.7 +- .9		23.6 +- .7	
005	72	1.80	33.0 +- .2		25.4 +- .2	
006	54	1.50	30.5 +- 1.1		23.5 +- .8	
007	46	3.00	37.9 +- .1		29.2 +- .1	
008	31	3.00	38.7 +- .9		29.7 +- .7	
009	13	3.90	35.2 +- .8		27.0 +- .6	
010	7	4.00	34.5 +- .1		26.5 +- .1	
011	349	4.30	29.9 +- .6		23.0 +- .5	
012	323	5.00	31.9 +- .6		24.5 +- .4	
013	333	3.00	32.9 +- .7		25.3 +- .6	
014	255	2.80	27.1 +- .1		20.9 +- .1	
015	308	5.60	34.3 +- .4		26.4 +- .3	
016	64	3.50	33.7 +- 1.7		25.9 +- 1.3	
017	98	3.10	31.3 +- .3		24.0 +- .2	
018	114	3.50	31.8 +- .4		24.5 +- .3	
019	132	2.00	29.8 +- .2		22.9 +- .2	
020	152	4.50	25.5 +- .4		19.6 +- .3	

## SUMMER

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820412 117 DAYS  
 FIELD TIME 820108-820402 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
021	133	4.10	25.1 +- .2		19.3 +- .1	
022	157	2.40	28.4 +- .5		21.9 +- .4	
023	173	2.40	28.8 +- .0		22.2 +- .0	
024	185	3.90	28.7 +- 1.0		22.0 +- .8	
025	210	3.30	27.5 +- .1		21.2 +- .1	
026	217	3.30	27.3 +- .7		21.0 +- .6	
027	231	3.10	26.2 +- .5		20.2 +- .4	
028	267	2.70	31.7 +- .8		24.4 +- .6	
029	276	3.40	34.5 +- .3		26.5 +- .3	
030	293	3.80	36.2 +- .1		27.8 +- .1	
031	244	3.60	28.7 +- .5		22.1 +- .4	
032	247	6.20	29.4 +- .6		22.6 +- .5	
033	218	9.00	30.7 +- .4		23.6 +- .3	
034	192	9.30	27.8 +- .6		21.4 +- .4	
035	184	14.1	25.2 +- .2		19.3 +- .1	
036	183	14.6	25.1 +- .4		19.3 +- .3	
037	182	14.8	25.8 +- .9		19.8 +- .7	
039	140	25.0	31.7 +- .8		24.4 +- .6	
040	135	23.1	31.2 +- .4		24.0 +- .3	



SUMMER  
FOR THE PERIOD 811217-820412 117 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	‡ IN GROUP
348.75-11.25 (N)	24.8 $\pm$ 2.5	2
11.25-33.75 (NNE)	28.4 $\pm$ 1.9	2
33.75-56.25 (NE)	26.3 $\pm$ 4.0	2
56.25-78.75 (ENE)	25.7 $\pm$ .3	2
78.75-101.25 (E)	24.0 $\pm$ 0.0	1
101.25-123.75 (ESE)	23.9 $\pm$ .8	2
123.75-146.25 (SE)	22.7 $\pm$ 2.3	4
146.25-168.75 (SSE)	20.7 $\pm$ 1.6	2
168.75-191.25 (S)	20.5 $\pm$ 1.4	5
191.25-213.75 (SSW)	22.6 $\pm$ 1.6	4
213.75-236.25 (SW)	21.6 $\pm$ 1.0	3
236.25-258.75 (WSW)	21.8 $\pm$ .9	3
258.75-281.25 (W)	25.4 $\pm$ 1.5	2
281.25-303.75 (WNW)	27.8 $\pm$ 0.0	1
303.75-326.25 (NW)	25.4 $\pm$ 1.3	2
326.25-348.75 (NNW)	25.1 $\pm$ .4	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	‡ IN GROUP
0-2	23.8 $\pm$ 1.1	4
2-5	23.9 $\pm$ 2.9	25
>5	22.4 $\pm$ 2.4	10

## SURRY

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820413 113 DAYS  
 FIELD TIME 820105-820406 92 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE FIVE
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std.Qtr. +- Std. Dev.
001	118	18.8	30.6 +- .8	24.4 +- .6
002	129	17.3	31.2 +- 2.2	24.8 +- 1.8
003	162	16.5	31.2 +- .4	24.8 +- .3
004	162	16.5	28.7 +- .5	22.8 +- .4
005	156	5.10	32.2 +- 1.0	25.6 +- .8
006	189	4.10	30.0 +- 1.1	23.9 +- .9
007	202	2.20	27.5 +- .9	21.9 +- .7
008	183	1.60	33.0 +- .6	26.3 +- .5
009	243	0.20	35.8 +- .6	28.5 +- .5
010	269	0.10	35.5 +- .3	28.2 +- .2
011	304	0.10	37.9 +- .5	30.2 +- .4
012	334	0.20	37.4 +- .0	29.8 +- .0
013	10	1.20	31.8 +- .5	25.4 +- .4
014	21	2.00	30.7 +- .3	24.5 +- .2
015	203	4.50	31.4 +- .0	25.0 +- .0
016	224	3.70	28.1 +- .8	22.4 +- .7
017	212	2.00	25.0 +- .1	19.9 +- .1
018	248	5.10	30.1 +- .3	24.0 +- .2
019	259	8.10	29.2 +- .7	23.3 +- .6
020	285	5.00	22.9 +- .1	18.2 +- .1

SURRY

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820413 113 DAYS  
 FIELD TIME 820105-820406 92 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.0tr +- Std. Dev.	
021	270	4.10	33.3 +- .7		26.5 +- .5	
022	123	12.5	34.1 +- 1.3		27.2 +- 1.0	
023	102	11.0	35.5 +- 1.1		28.3 +- .8	
024	106	4.90	32.5 +- .9		25.9 +- .7	
025	90	5.20	29.5 +- .3		23.5 +- .2	
026	69	5.10	36.2 +- 1.5		28.8 +- 1.2	
027	23	5.30	32.2 +- .6		25.6 +- .5	
028	49	5.00	30.8 +- .3		24.5 +- .3	
029	7	6.80	32.6 +- .7		25.9 +- .6	
030	359	6.50	27.8 +- 1.1		22.1 +- .9	
031	1	4.60	26.0 +- .4		20.7 +- .3	
032	332	3.80	29.8 +- .0		23.7 +- .0	
033	314	5.40	30.6 +- .1		24.4 +- .1	
034	308	6.40	29.1 +- .7		23.2 +- .5	
035	348	5.30	28.5 +- .6		22.7 +- .5	
036	343	14.7	28.9 +- .6		23.0 +- .5	
037	340	15.4	27.3 +- 1.2		21.8 +- 1.0	
038	339	15.8	27.3 +- .7		21.7 +- .5	
039	153	1.90	30.1 +- .0		24.0 +- .0	
040	144	2.10	30.8 +- .9		24.6 +- .7	
050	CTL	TLD	19.6 +- 1.2		15.6 +- .9	

SURRY  
 FOR THE PERIOD 811222-820413 113 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	23.5 $\pm$ 2.5	4
11.25-33.75 (NNE)	25.0 $\pm$ .8	2
33.75-56.25 (NE)	24.5 $\pm$ 0.0	1
56.25-78.75 (ENE)	28.8 $\pm$ 0.0	1
78.75-101.25 (E)	23.5 $\pm$ 0.0	1
101.25-123.75 (ESE)	26.4 $\pm$ 1.7	4
123.75-146.25 (SE)	24.7 $\pm$ .2	2
146.25-168.75 (SSE)	24.3 $\pm$ 1.2	4
168.75-191.25 (S)	25.1 $\pm$ 1.7	2
191.25-213.75 (SSW)	22.3 $\pm$ 2.6	3
213.75-236.25 (SW)	22.4 $\pm$ 0.0	1
236.25-258.75 (WSW)	26.2 $\pm$ 3.2	2
258.75-281.25 (W)	26.0 $\pm$ 2.5	3
281.25-303.75 (WNW)	18.2 $\pm$ 0.0	1
303.75-326.25 (NW)	25.9 $\pm$ 3.8	3
326.25-348.75 (NNW)	23.8 $\pm$ 3.0	6

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	26.3 $\pm$ 3.3	9
2-5	23.4 $\pm$ 2.4	11
>5	24.4 $\pm$ 2.0	20

## SUSQUEHANNA

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811111-820406 147 DAYS  
 FIELD TIME 821112-820406 146 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE F-2	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. D	
100	CTL	TLD	7.8 +- .1		4.8 +- .1	
51	19	1.40	21.0 +- .2		12.9 +- .1	
52	0	1.40	21.7 +- .2		13.3 +- .1	
53	333	1.70	21.5 +- .4		13.1 +- .3	
54	318	1.70	19.7 +- .1		12.0 +- .1	
55	287	1.70	23.0 +- .7		14.1 +- .4	
56	270	1.30	23.5 +- .4		14.4 +- .3	
57	239	1.80	20.7 +- .8		12.6 +- .5	
58	217	2.00	26.3 +- .1		16.1 +- .1	
59	200	1.40	23.9 +- .2		14.6 +- .1	
60	175	1.20	21.5 +- .3		13.2 +- .2	
61	243	5.10	23.1 +- .5		14.1 +- .3	
62	252	4.70	22.3 +- .0		13.6 +- .0	
63	274	3.40	21.9 +- .5		13.4 +- .3	
64	286	3.60	22.3 +- 1.3		13.6 +- .8	
65	2	3.80	22.1 +- .3		13.5 +- .2	
66	334	4.10	22.0 +- .3		13.4 +- .2	
67	312	4.40	21.5 +- .5		13.1 +- .3	
68	32	4.90	23.0 +- .1		14.1 +- .0	
69	45	9.90	23.6 +- .4		14.4 +- .2	

## SUSQUEHANNA

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811111-820406 147 DAYS  
 FIELD TIME 821112-820406 146 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
70	65	4.80	26.2 +- .6		16.1 +- .3	
71	44	3.10	27.7 +- 1.2		16.9 +- .7	
72	47	0.70	22.1 +- .3		13.5 +- .2	
73	65	1.20	24.6 +- .1		15.1 +- .0	
74	87	1.40	22.4 +- .1		13.7 +- .1	
75	108	1.40	23.1 +- .8		14.1 +- .5	
76	137	1.50	23.7 +- .6		14.5 +- .3	
77	152	1.50	25.2 +- .4		15.4 +- .3	
78	108	3.70	25.4 +- .1		15.6 +- .0	
79	102	4.30	25.2 +- .3		15.4 +- .2	
80	140	4.30	23.0 +- .7		14.1 +- .4	
81	162	3.40	23.4 +- .7		14.3 +- .4	
82	176	3.50	24.9 +- .7		15.2 +- .5	
83	192	3.10	26.1 +- .4		16.0 +- .2	
84	231	4.40	21.4 +- .1		13.1 +- .1	
85	134	12.5	22.2 +- .4		13.6 +- .3	
86	114	13.3	26.3 +- .4		16.1 +- .3	
87	150	15.2	22.3 +- .4		13.6 +- .3	

SUSQUEHANNA  
FOR THE PERIOD 811111-820406 147 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	13.4 +- .2	2
11.25-33.75 (NNE)	13.5 +- .8	2
33.75-56.25 (NE)	15.0 +- 1.8	3
56.25-78.75 (ENE)	15.6 +- .7	2
78.75-101.25 (E)	13.7 +- 0.0	1
101.25-123.75 (ESE)	15.3 +- .8	4
123.75-146.25 (SE)	14.1 +- .4	3
146.25-168.75 (SSE)	14.5 +- .9	3
168.75-191.25 (S)	14.2 +- 1.5	2
191.25-213.75 (SSW)	15.3 +- 1.0	2
213.75-236.25 (SW)	14.6 +- 2.1	2
236.25-258.75 (WSW)	13.5 +- .7	3
258.75-281.25 (W)	13.9 +- .7	2
281.25-303.75 (WNW)	13.9 +- .3	2
303.75-326.25 (NW)	12.6 +- .8	2
326.25-348.75 (NNW)	13.3 +- .2	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	13.9 +- 1.1	16
2-5	14.5 +- 1.2	16
>5	14.4 +- 1.0	5

THREE MILE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 810925-820407 195 DAYS  
 FIELD TIME 811005-820331 178 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
109	206	0.90	36.1 +- .2		16.7 +- .1	
110	206	0.90	33.5 +- .5		15.5 +- .2	
111	230	0.50	31.5 +- .8		14.5 +- .4	
112	230	0.50	31.4 +- 1.3		14.5 +- .6	
113	293	0.40	37.4 +- .6		17.2 +- .3	
114	293	0.40	35.7 +- .4		16.5 +- .2	
117	317	1.20	36.6 +- .8		16.9 +- .4	
118	317	1.20	34.2 +- .9		15.8 +- .4	

TLDs AT THESE STATIONS WERE NOT EXCHANGED AT THE END OF FOURTH  
 QUARTER, 1981 BECAUSE THEY ARE LOCATED ON ISLANDS WHICH COULD  
 NOT BE SAFELY REACHED IN WINTER. THEY SPENT TWO QUARTERS IN THE  
 FIELD.



THREE MILE ISLAND  
 FOR THE PERIOD 810925-820407 195 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	0.0 +/- 0.0	0
11.25-33.75 (NNE)	0.0 +/- 0.0	0
33.75-56.25 (NE)	0.0 +/- 0.0	0
56.25-78.75 (ENE)	0.0 +/- 0.0	0
78.75-101.25 (E)	0.0 +/- 0.0	0
101.25-123.75 (ESE)	0.0 +/- 0.0	0
123.75-146.25 (SE)	0.0 +/- 0.0	0
146.25-168.75 (SSE)	0.0 +/- 0.0	0
168.75-191.25 (S)	0.0 +/- 0.0	0
191.25-213.75 (SSW)	16.1 +/- .8	2
213.75-236.25 (SW)	14.5 +/- .1	2
236.25-258.75 (WSW)	0.0 +/- 0.0	0
258.75-281.25 (W)	0.0 +/- 0.0	0
281.25-303.75 (WNW)	16.9 +/- .5	2
303.75-326.25 (NW)	16.3 +/- .8	2
326.25-348.75 (NNW)	0.0 +/- 0.0	0

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE +/- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	15.9 +/- 1.1	8
2-5		0
>5		0

## THREE MILE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820407 99 DAYS  
 FIELD TIME 820111-820331 80 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATE
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std.Qtr. +- Std. Dev.
119	95	5.90	18.8 +- .3	17.1 +- .2
120	95	5.90	19.6 +- .0	17.8 +- .0
121	101	3.90	18.7 +- .6	17.0 +- .6
122	101	3.90	19.0 +- .3	17.2 +- .3
123	109	2.70	16.9 +- 0.0	15.3 +- 0.0
124	109	2.70	17.9 +- .1	16.3 +- .1
125	163	1.80	17.3 +- .6	15.7 +- .5
126	163	1.80	17.9 +- .2	16.3 +- .2
127	161	2.20	16.7 +- .1	15.2 +- .1
128	161	2.20	16.2 +- .5	14.8 +- .5
129	150	1.00	19.2 +- .4	17.5 +- .3
130	150	1.00	18.6 +- .6	16.9 +- .5

## THREE MILE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820407 99 DAYS  
 FIELD TIME 820111-820331 80 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
131	136	0.60	16.9 +- .5		15.3 +- .5	
132	136	0.60	18.1 +- .1		16.5 +- .1	
134	83	0.40	12.8 +- .4		11.6 +- .4	
135	60	0.50	18.4 +- .1		16.7 +- .1	
136	60	0.50	18.3 +- .1		16.7 +- .1	
137	1	1.70	18.2 +- .5		16.5 +- .4	
138	1	1.70	17.7 +- .7		16.1 +- .7	
139	25	0.90	17.2 +- .7		15.7 +- .6	
140	25	0.90	17.1 +- .1		15.6 +- .1	
141	46	2.80	18.7 +- .1		17.0 +- .1	
142	46	2.80	18.6 +- .1		16.9 +- .1	
143	19	5.20	18.0 +- .4		16.3 +- .4	
144	19	5.20	17.7 +- .6		16.1 +- .6	
145	358	2.50	18.0 +- .2		16.3 +- .2	
146	358	2.50	16.6 +- .2		15.1 +- .2	
147	357	2.70	17.6 +- .9		16.0 +- .8	
148	357	2.70	16.3 +- .8		14.8 +- .7	
149	0	3.10	18.9 +- .1		17.2 +- .1	
150	0	3.10	17.8 +- 1.1		16.1 +- 1.0	
151	351	4.10	16.2 +- .1		14.8 +- .1	
152	351	4.10	17.6 +- 1.0		16.0 +- .9	

## THREE MILE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820407 99 DAYS  
 FIELD TIME 820111-820331 80 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
153	349	3.50	18.0 +- .2		16.3 +- .1	
154	349	3.50	16.3 +- 1.3		14.8 +- 1.1	
155	343	3.20	19.1 +- .2		17.4 +- .2	
156	343	3.20	19.7 +- .9		17.9 +- .8	
157	318	5.00	18.8 +- .8		17.1 +- .7	
158	318	5.00	17.8 +- 1.5		16.2 +- 1.3	
159	348	1.30	14.6 +- .3		13.3 +- .2	
160	348	1.30	16.8 +- .1		15.3 +- .1	
161	17	3.10	19.6 +- .6		17.8 +- .5	
162	17	3.10	19.6 +- .1		17.8 +- .1	
163	64	3.80	16.7 +- .1		15.1 +- .1	
164	64	3.80	17.2 +- .1		15.7 +- .1	
165	44	3.60	19.4 +- .3		17.7 +- .3	
166	44	3.60	19.1 +- .6		17.3 +- .6	
167	47	7.60	18.2 +- .2		16.6 +- .1	
168	47	7.60	18.6 +- .1		16.9 +- .1	
169	-	-	17.3 +- .6		15.7 +- .6	
170	-	-	17.0 +- .2		15.4 +- .1	
173	-	-	19.2 +- .2		17.5 +- .1	
174	-	-	19.9 +- .7		18.1 +- .6	
175	-	-	14.5 +- .4		13.1 +- .3	

## THREE MILE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820407 99 DAYS  
 FIELD TIME 820111-820331 80 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATE
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std.Qtr. +- Std. Dev.
176	-	-	19.7 +- 1.1	17.9 +- 1.0
177	-	-	20.2 +- .2	18.4 +- .2
178	-	-	20.4 +- .3	18.5 +- .2
179	-	-	17.5 +- .0	15.9 +- .0
180	-	-	12.3 +- .1	11.2 +- .1
181	-	-	20.6 +- .8	18.8 +- .7
182	-	-	20.5 +- .1	18.7 +- .1
185	267	2.30	19.3 +- .3	17.5 +- .3
186	267	2.30	19.0 +- .2	17.2 +- .1
187	299	1.80	17.7 +- .3	16.0 +- .2
188	299	1.80	19.1 +- 1.1	17.3 +- 1.0
189	267	1.20	14.7 +- .2	13.4 +- .2
190	267	1.20	14.2 +- .4	12.9 +- .3
191	256	1.40	16.2 +- .6	14.7 +- .5
192	256	1.40	17.7 +- .6	16.1 +- .6
193	225	1.90	20.2 +- .7	18.4 +- .6
194	225	1.90	19.4 +- .4	17.6 +- .3
195	200	2.10	19.9 +- 2.7	18.1 +- 2.5
196	200	2.10	16.8 +- .4	15.2 +- .3
197	204	2.50	18.3 +- .4	16.6 +- .4
198	204	2.50	18.3 +- .5	16.6 +- .4

## THREE MILE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820407 99 DAYS  
 FIELD TIME 820111-820331 80 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
199	253	3.90	20.5 +- .0		18.6 +- .0	
200	253	3.90	20.5 +- .5		18.7 +- .4	
201	259	7.30	18.1 +- .5		16.4 +- .4	
202	259	7.30	19.0 +- .3		17.2 +- .3	
203	268	5.80	20.1 +- .5		18.3 +- .4	
204	268	5.80	20.7 +- .2		18.8 +- .2	
205	263	4.70	17.8 +- .4		16.2 +- .4	
206	263	4.70	18.6 +- 1.0		16.9 +- .9	
207	175	3.20	17.6 +- .1		16.0 +- .1	
208	175	3.20	19.0 +- .9		17.3 +- .8	
209	177	3.00	18.3 +- .3		16.6 +- .3	
210	177	3.00	18.0 +- .4		16.4 +- .4	
213	182	9.00	23.0 +- .6		20.9 +- .5	
214	182	9.00	18.8 +- .2		17.0 +- .1	
215	210	8.20	17.9 +- .4		16.2 +- .4	
216	210	8.20	17.1 +- .4		15.5 +- .3	
217	214	9.60	17.8 +- .6		16.2 +- .5	
218	214	9.60	17.2 +- .3		15.6 +- .2	
219	185	12.6	19.0 +- .1		17.3 +- .1	
220	185	12.6	18.2 +- .3		16.6 +- .3	
221	133	9.00	20.0 +- .4		18.2 +- .3	

THREE MILE ISLAND

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811230-820407 99 DAYS  
 FIELD TIME 820111-820331 80 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
222	133	9.00	19.5 +- .2		17.7 +- .2	
225	144	4.60	14.2 +- .1		12.9 +- .1	
226	144	4.60	14.3 +- .2		13.0 +- .2	

THREE MILE ISLAND  
 FOR THE PERIOD 811230-820407 99 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	15.8 +- .8	12
11.25-33.75 (NNE)	16.6 +- 1.0	6
33.75-56.25 (NE)	17.1 +- .4	6
56.25-78.75 (ENE)	16.0 +- .8	4
78.75-101.25 (E)	16.1 +- 2.6	5
101.25-123.75 (ESE)	15.8 +- .6	2
123.75-146.25 (SE)	15.6 +- 2.3	6
146.25-168.75 (SSE)	16.1 +- 1.0	6
168.75-191.25 (S)	17.3 +- 1.5	8
191.25-213.75 (SSW)	16.4 +- 1.0	6
213.75-236.25 (SW)	17.0 +- 1.3	4
236.25-258.75 (WSW)	17.0 +- 2.0	4
258.75-281.25 (W)	16.5 +- 1.9	10
281.25-303.75 (WNW)	16.7 +- .9	2
303.75-326.25 (NW)	16.6 +- .6	2
326.25-348.75 (NNW)	16.0 +- 2.1	4

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	15.7 +- 1.6	23
2-5	16.4 +- 1.3	44
>5	17.1 +- 1.3	28



## TROJAN

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811214-820415 123 DAYS  
 FIELD TIME 820116-820410 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	340	0.60	21.4 +- .2		15.7 +- .2	
002	334	1.50	23.1 +- .7		16.9 +- .5	
003	340	1.70	21.6 +- .5		15.8 +- .4	
004	328	3.90	23.9 +- .7		17.5 +- .5	
005	308	4.60	22.0 +- .4		16.1 +- .3	
006	312	4.50	17.4 +- .2		12.7 +- .1	
007	267	4.60	22.5 +- .2		16.4 +- .2	
009	279	1.70	18.7 +- .1		13.7 +- .1	
010	263	2.00	23.7 +- .4		17.3 +- .3	
011	245	1.60	24.8 +- .6		18.2 +- .4	
012	223	1.20	25.0 +- .1		18.3 +- .0	
013	196	1.10	23.6 +- .7		17.2 +- .5	
014	180	1.20	22.6 +- .5		16.6 +- .4	
015	165	1.70	20.5 +- .1		15.0 +- .0	
016	212	3.90	23.3 +- .5		17.0 +- .4	
017	230	3.50	23.1 +- 1.2		16.9 +- .9	
018	162	9.30	24.6 +- .4		18.0 +- .3	
019	172	5.00	23.4 +- .3		17.1 +- .2	
020	334	5.80	22.7 +- .4		16.6 +- .3	
021	345	5.50	22.8 +- .1		16.7 +- .1	

## TROJAN

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811214-820415 123 DAYS  
 FIELD TIME 820116-820410 85 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
022	356	5.50	22.5 +- .3		16.5 +- .2	
023	8	3.90	22.5 +- .8		16.5 +- .6	
024	15	3.70	21.2 +- .1		15.5 +- .1	
025	27	1.90	20.5 +- .7		15.0 +- .5	
026	37	2.10	21.4 +- .7		15.7 +- .5	
027	60	2.90	23.2 +- .1		17.0 +- .0	
028	55	4.50	19.1 +- .2		14.0 +- .2	
029	69	1.60	22.9 +- .8		16.7 +- .6	
030	83	3.90	21.9 +- .3		16.0 +- .2	
031	93	2.65	23.8 +- .9		17.4 +- .7	
032	119	2.20	23.4 +- .7		17.1 +- .5	
033	106	5.30	22.3 +- 1.3		16.3 +- 1.0	
034	134	2.50	21.2 +- .1		15.5 +- .1	
035	145	4.70	22.3 +- .3		16.3 +- .2	
036	270	17.4	24.1 +- 1.0		17.6 +- .7	
037	270	17.4	25.6 +- .5		18.0 +- .4	
038	270	17.4	27.4 +- .7		20.1 +- .5	
050	CTL	TLD	20.0 +- .9		14.6 +- .6	

TROJAN  
 FOR THE PERIOD 811214-820415 123 DAYS  
 TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.5 $\pm$ .0	2
11.25-33.75 (NNE)	15.2 $\pm$ .4	2
33.75-56.25 (NE)	14.8 $\pm$ 1.2	2
56.25-78.75 (ENE)	16.8 $\pm$ .2	2
78.75-101.25 (E)	16.7 $\pm$ 1.0	2
101.25-123.75 (ESE)	16.7 $\pm$ .6	2
123.75-146.25 (SE)	15.9 $\pm$ .6	2
146.25-168.75 (SSE)	16.5 $\pm$ 2.1	2
168.75-191.25 (S)	16.8 $\pm$ .4	2
191.25-213.75 (SSW)	17.1 $\pm$ .2	2
213.75-236.25 (SW)	17.6 $\pm$ 1.0	2
236.25-258.75 (WSW)	18.2 $\pm$ 0.0	1
258.75-281.25 (W)	17.3 $\pm$ 2.2	6
281.25-303.75 (WNW)	0.0 $\pm$ 0.0	0
303.75-326.25 (NW)	14.4 $\pm$ 2.4	2
326.25-348.75 (NNW)	16.5 $\pm$ .7	6

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.4 $\pm$ 1.4	12
2-5	16.2 $\pm$ 1.3	17
>5	17.6 $\pm$ 1.3	8

## TURKEY POINT

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811218-820409 113 DAYS  
 FIELD TIME 820105-820403 89 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RATE mR/Std. Dev.	
	AZIMUTH/ (deg.)	DIST (mi.)	+ -	Std. Dev.	+ -	Std. Dev.
001	310	1.30	10.9	+ - .1	8.7	+ - .1
002	292	2.40	16.1	+ - .6	12.8	+ - .5
003	340	1.90	10.3	+ - .3	8.2	+ - .3
004	354	2.00	10.9	+ - .4	8.7	+ - .4
005	314	3.80	15.8	+ - .5	12.6	+ - .4
006	331	4.20	15.5	+ - .0	12.3	+ - .0
007	291	5.40	11.6	+ - .2	9.3	+ - .1
009	242	5.70	10.5	+ - .2	8.3	+ - .1
011	220	6.20	16.1	+ - .7	12.8	+ - .6
012	213	6.90	16.8	+ - .4	13.4	+ - .4
013	199	10.1	17.2	+ - .7	13.7	+ - .6
014	190	10.5	16.9	+ - .5	13.4	+ - .4
015	180	10.4	16.9	+ - .1	13.4	+ - .1
016	171	10.3	17.4	+ - .6	13.8	+ - .5
017	165	9.00	17.2	+ - .4	13.7	+ - .3
018	203	16.3	15.7	+ - .8	12.5	+ - .7
019	203	16.2	15.7	+ - .4	12.5	+ - .3
020	203	16.2	17.8	+ - .7	14.2	+ - .6
021	268	8.70	15.7	+ - .3	12.5	+ - .2
022	256	8.00	10.2	+ - .0	8.1	+ - .0

## TURKEY POINT

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811218-820409 113 DAYS  
FIELD TIME 820105-820403 89 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
023	275	9.00	16.5 +- .8		13.1 +- .6	
024	285	9.00	16.5 +- .7		13.1 +- .5	
025	293	8.70	19.2 +- 1.4		15.3 +- 1.1	
026	301	8.40	18.4 +- .1		14.6 +- .1	
027	311	8.30	16.7 +- .3		13.3 +- .2	
028	327	8.20	18.3 +- .5		14.6 +- .4	
029	339	9.30	11.9 +- .0		9.5 +- .0	
030	350	8.70	17.3 +- .1		13.8 +- .1	
031	359	9.90	16.6 +- .1		13.2 +- .1	
032	2	18.3	17.4 +- .2		13.9 +- .2	
033	12	21.8	17.8 +- .1		14.2 +- .0	
034	18	24.0	17.8 +- .2		14.2 +- .1	
035	28	22.0	15.8 +- .6		12.6 +- .5	
036	15	0.30	15.4 +- .1		12.3 +- .1	
037	228	0.50	16.3 +- .1		13.0 +- .1	
050	CTL	TLD	12.5 +- .3		9.9 +- .2	

TURKEY POINT  
FOR THE PERIOD 811218-820409 113 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	12.4 $\pm$ 2.5	4
11.25-33.75 (NNE)	13.3 $\pm$ 1.0	4
33.75-56.25 (NE)	0.0 $\pm$ 0.0	0
56.25-78.75 (ENE)	0.0 $\pm$ 0.0	0
78.75-101.25 (E)	0.0 $\pm$ 0.0	0
101.25-123.75 (ESE)	0.0 $\pm$ 0.0	0
123.75-146.25 (SE)	0.0 $\pm$ 0.0	0
146.25-168.75 (SSE)	13.7 $\pm$ 0.0	1
168.75-191.25 (S)	13.6 $\pm$ .2	3
191.25-213.75 (SSW)	13.2 $\pm$ .8	5
213.75-236.25 (SW)	12.9 $\pm$ .1	2
236.25-258.75 (WSW)	0.2 $\pm$ .1	2
258.75-281.25 (W)	12.8 $\pm$ .5	2
281.25-303.75 (WNW)	13.0 $\pm$ 2.3	5
303.75-326.25 (NW)	11.5 $\pm$ 2.5	3
326.25-348.75 (NNW)	11.1 $\pm$ 2.9	4

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	10.2 $\pm$ 2.3	5
2-5	12.6 $\pm$ .3	3
>5	12.9 $\pm$ 1.9	27

## VERMONT YANKEE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820511 141 DAYS  
 FIELD TIME 820111-820409 89 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
001	142	1.20	26.8 +- .3		17.1 +- .2	
002	158	1.00	25.1 +- 1.3		16.0 +- .8	
003	184	1.30	27.6 +- 2.4		17.6 +- 1.5	
004	201	1.40	24.0 +- .2		15.3 +- .1	
005	220	1.60	22.8 +- .6		14.5 +- .4	
007	189	4.90	24.3 +- 0.0		15.5 +- 0.0	
008	201	13.5	24.0 +- .9		15.3 +- .6	
009	208	5.80	25.9 +- .5		16.5 +- .3	
010	232	3.70	24.4 +- .6		15.6 +- .4	
011	277	2.90	25.9 +- 1.0		16.5 +- .6	
012	292	1.40	21.8 +- 0.0		13.9 +- 0.0	
013	314	1.40	22.3 +- .9		14.2 +- .6	
014	310	4.20	23.7 +- .5		15.1 +- .3	
015	299	4.30	25.2 +- .2		16.1 +- .1	
016	270	4.50	22.1 +- 1.7		14.1 +- 1.1	
017	331	5.00	24.2 +- 1.1		15.4 +- .7	
018	290	18.8	27.2 +- .7		17.3 +- .5	
019	290	18.8	26.8 +- .5		17.1 +- .3	
020	290	18.8	25.7 +- .4		16.4 +- .3	
021	359	3.20	22.9 +- .3		14.6 +- .2	

## VERMONT YANKEE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820511 141 DAYS  
 FIELD TIME 820111-820409 89 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE(mR)		EXPOSURE RATE mR/Std.Qtr.	
	AZIMUTH/DIST (deg.)	(mi.)	+/-	Std. Dev.	+/-	Std. Dev.
023	334	2.20	23.5	+/- 1.6	15.0	+/- 1.0
024	4	0.90	27.2	+/- .6	17.3	+/- .4
025	30	1.00	23.5	+/- 1.6	15.0	+/- 1.0
026	72	1.50	29.8	+/- .6	19.0	+/- .4
027	44	0.70	24.2	+/- .4	15.4	+/- .2
028	39	2.90	25.0	+/- .2	16.0	+/- .1
029	25	3.80	23.7	+/- 1.5	15.1	+/- 1.0
030	72	2.70	27.9	+/- .3	17.8	+/- .2
031	85	2.00	25.0	+/- 1.7	15.9	+/- 1.1
032	111	1.80	24.5	+/- .2	15.6	+/- .1
033	134	4.00	21.9	+/- .4	14.0	+/- .3
034	151	6.00	22.7	+/- 1.3	14.5	+/- .8
035	111	4.30	24.0	+/- .8	15.3	+/- .5
036	92	4.70	27.9	+/- .6	17.8	+/- .4
037	50	15.0	31.4	+/- .5	20.0	+/- .3
039	222	0.30	26.6	+/- .1	17.0	+/- .1
040	250	.00	24.7	+/- .5	15.8	+/- .3
050	CTL	TLD	15.7	+/- .2	10.0	+/- .1



VERMONT YANKEE  
 FOR THE PERIOD 811222-820511 141 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.0 $\pm$ 1.9	2
11.25-33.75 (NNE)	15.1 $\pm$ .1	2
33.75-56.25 (NE)	17.1 $\pm$ 2.5	3
56.25-78.75 (ENE)	18.4 $\pm$ .8	2
78.75-101.25 (E)	16.8 $\pm$ 1.3	2
101.25-123.75 (ESE)	15.4 $\pm$ .2	2
123.75-146.25 (SE)	15.5 $\pm$ 2.2	2
146.25-168.75 (SSE)	15.3 $\pm$ 1.1	2
168.75-191.25 (S)	16.5 $\pm$ 1.5	2
191.25-213.75 (SSW)	15.7 $\pm$ .7	3
213.75-236.25 (SW)	15.7 $\pm$ 1.2	3
236.25-258.75 (WSW)	15.8 $\pm$ 0.0	1
258.75-281.25 (W)	15.3 $\pm$ 1.7	2
281.25-303.75 (WNW)	16.2 $\pm$ 1.4	5
303.75-326.25 (NW)	14.7 $\pm$ .7	2
326.25-348.75 (NNW)	15.2 $\pm$ .3	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.0 $\pm$ 1.4	14
2-5	15.6 $\pm$ 1.1	16
>5	16.7 $\pm$ 1.8	7

## WASHINGTON

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811224-820409 107 DAYS  
FIELD TIME 820112-820402 81 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATE
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std.Qtr. +- Std. Dev.
001	174	12.0	23.3 +- 1.2	19.6 +- 1.0
002	163	11.0	21.5 +- .4	18.1 +- .3
003	161	9.00	23.4 +- 1.1	19.7 +- .9
004	152	5.00	24.7 +- .3	20.7 +- .2
005	195	2.00	24.4 +- 1.5	20.5 +- 1.3
006	220	1.50	19.8 +- .3	16.6 +- .2
007	92	3.00	24.1 +- 1.2	20.3 +- 1.0
008	155	1.00	21.4 +- .8	18.0 +- .7
009	130	0.50	25.2 +- 1.1	21.2 +- .9
010	70	0.50	23.4 +- .3	19.7 +- .3
011	25	0.75	23.2 +- 1.6	19.5 +- 1.3
012	315	0.50	22.7 +- .3	19.1 +- .3
013	290	0.50	22.6 +- .2	19.0 +- .1
014	270	0.50	23.6 +- .2	19.8 +- .1
016	285	3.00	23.2 +- .8	19.5 +- .7
017	240	4.00	23.1 +- .5	19.4 +- .4
018	198	7.00	19.0 +- .7	15.9 +- .5
019	173	8.50	24.1 +- .8	20.2 +- .7
020	150	20.0	22.8 +- .9	19.2 +- .8
021	114	7.00	21.8 +- 1.5	18.3 +- 1.3

## WASHINGTON

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811224-820409 107 DAYS  
FIELD TIME 820112-820402 81 DAYS

NRC STATION	LOCATION		INTEGRATED	EXPOSURE RATE
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.	mR/Std.Otr. +- Std. Dev.
022	120	8.00	20.5 +- .4	17.2 +- .3
023	134	6.00	22.9 +- 1.4	19.3 +- 1.2
024	110	4.00	25.4 +- 1.2	21.3 +- 1.0
025	85	5.00	20.5 +- .3	17.2 +- .3
026	65	5.00	23.0 +- .7	19.3 +- .6
027	53	4.00	26.0 +- .5	21.9 +- .4
028	44	8.00	20.5 +- 1.3	17.2 +- 1.1
029	33	10.0	19.8 +- 1.4	16.7 +- 1.2
030	8	9.50	22.2 +- .7	18.6 +- .5
031	215	15.0	21.9 +- 1.1	18.4 +- .9
050	CTL	TLD	14.5 +- .6	12.2 +- .5

WASHINGTON  
 FOR THE PERIOD 811224-820409 107 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	18.6 $\pm$ 0.0	1
11.25-33.75 (NNE)	18.1 $\pm$ 2.0	2
33.75-56.25 (NE)	19.5 $\pm$ 3.3	2
56.25-78.75 (ENE)	19.5 $\pm$ .3	2
78.75-101.25 (E)	18.8 $\pm$ 2.1	2
101.25-123.75 (ESE)	19.0 $\pm$ 2.1	3
123.75-146.25 (SE)	20.2 $\pm$ 1.3	2
146.25-168.75 (SSE)	19.1 $\pm$ 1.2	5
168.75-191.25 (S)	19.9 $\pm$ .5	2
191.25-213.75 (SSW)	18.2 $\pm$ 3.2	2
213.75-236.25 (SW)	17.5 $\pm$ 1.3	2
236.25-258.75 (WSW)	19.4 $\pm$ 0.0	1
258.75-281.25 (W)	19.8 $\pm$ 0.0	1
281.25-303.75 (WNW)	19.2 $\pm$ .4	2
303.75-326.25 (NW)	19.1 $\pm$ 0.0	1
326.25-348.75 (NNW)	0.0 $\pm$ 0.0	0

DISTANCE(mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	19.3 $\pm$ 1.3	9
2-5	20.0 $\pm$ 1.4	8
>5	18.3 $\pm$ 1.3	13

## WATTS BAR

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820406 106 DAYS  
 FIELD TIME 820106-820401 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.)	(mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
001	337	0.90	20.8 +- .2		17.6 +- .2	
002	314	2.10	22.3 +- .4		18.9 +- .3	
003	297	1.90	21.1 +- .2		17.9 +- .2	
004	272	2.00	19.8 +- .5		16.8 +- .4	
005	251	1.90	23.0 +- .1		19.5 +- .1	
006	235	1.80	23.3 +- .9		19.8 +- .7	
007	230	3.80	22.2 +- .7		18.9 +- .6	
008	208	3.60	22.0 +- .1		18.7 +- .0	
009	249	4.20	19.8 +- .1		16.8 +- .1	
010	266	3.10	20.7 +- .2		17.6 +- .2	
011	289	3.30	18.4 +- .1		15.6 +- .1	
012	310	4.70	19.4 +- 1.0		16.5 +- .8	
013	337	3.60	17.5 +- .2		14.9 +- .1	
014	330	7.00	23.4 +- .9		19.9 +- .8	
015	350	4.70	19.9 +- .4		16.9 +- .3	
016	7	1.10	22.4 +- .1		19.0 +- .1	
017	23	1.60	18.1 +- .1		15.3 +- .1	
018	41	2.30	20.2 +- .6		17.2 +- .5	
019	69	1.30	22.2 +- .7		18.8 +- .6	
020	89	1.20	25.0 +- .5		21.2 +- .4	

## WATTS BAR

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820406 106 DAYS  
 FIELD TIME 820106-820401 86 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
021	114	1.10	20.2 +- .4		17.2 +- .3	
022	141	1.00	24.9 +- .3		21.2 +- .3	
023	163	1.10	25.3 +- .4		21.5 +- .3	
024	187	1.10	20.1 +- .4		17.1 +- .4	
025	203	1.20	21.5 +- .3		18.2 +- .3	
026	184	5.90	21.9 +- .5		18.6 +- .4	
027	176	4.50	19.9 +- .6		16.9 +- .5	
028	161	3.50	20.9 +- .3		17.8 +- .2	
029	144	3.00	19.8 +- .5		16.8 +- .4	
030	117	3.10	20.1 +- .3		17.0 +- .3	
031	97	4.00	20.3 +- .5		17.2 +- .4	
032	76	4.10	18.1 +- .3		15.3 +- .2	
033	32	4.10	20.8 +- .6		17.7 +- .5	
034	36	4.70	19.7 +- .3		16.7 +- .3	
035	338	18.8	20.1 +- .8		17.0 +- .7	
036	338	18.8	14.9 +- .9		12.7 +- .8	
037	338	18.8	20.3 +- .3		17.2 +- .2	
050	CTL	TLD	11.7 +- .4		10.0 +- .3	

WATTS BAR  
FOR THE PERIOD 811222-820406 106 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	17.8 +- 1.5	2
11.25-33.75 (NNE)	16.5 +- 1.6	2
33.75-56.25 (NE)	16.8 +- .3	2
56.25-78.75 (ENE)	17.1 +- 2.5	2
78.75-101.25 (E)	19.2 +- 2.8	2
101.25-123.75 (ESE)	17.1 +- .1	2
123.75-146.25 (SE)	19.8 +- 3.1	2
146.25-168.75 (SSE)	19.6 +- 2.6	2
168.75-191.25 (S)	17.5 +- .9	3
191.25-213.75 (SSW)	18.5 +- .3	2
213.75-236.25 (SW)	19.3 +- .7	2
236.25-258.75 (WSW)	18.1 +- 1.9	2
258.75-281.25 (W)	17.2 +- .5	2
281.25-303.75 (WNW)	16.8 +- 1.6	2
303.75-326.25 (NW)	17.7 +- 1.7	2
326.25-348.75 (NNW)	16.6 +- 2.5	6

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	18.7 +- 1.8	14
2-5	17.1 +- 1.1	18
>5	17.1 +- 2.7	5

## YANKEE ROWE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811222-820416 116 DAYS  
 FIELD TIME 820105-820409 95 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	EXPOSURE (mR)	+/- Std. Dev.	mR/Std. Qtr.	+/- Std. Dev.
001	0	0.81	21.5	+/- .5	16.7	+/- .4
005	85	2.20	14.1	+/- .7	10.9	+/- .5
006	118	2.60	13.6	+/- .3	10.6	+/- .2
007	137	2.10	13.9	+/- .4	10.8	+/- .3
008	153	1.70	14.1	+/- .4	10.9	+/- .3
009	176	1.10	13.8	+/- .6	10.7	+/- .4
010	203	0.50	13.2	+/- .2	10.2	+/- .2
011	219	0.60	14.2	+/- .2	11.0	+/- .1
012	239	1.10	17.8	+/- .1	13.8	+/- .1
013	272	1.80	13.7	+/- .2	10.7	+/- .2
014	292	1.30	13.1	+/- .1	10.1	+/- .1
015	315	1.60	14.1	+/- .5	11.0	+/- .4
016	348	1.40	14.5	+/- .1	11.3	+/- .1
017	358	2.80	13.4	+/- .2	10.4	+/- .2
018	21	2.80	12.8	+/- .2	9.9	+/- .1
019	43	5.80	13.5	+/- .2	10.5	+/- .2
022	104	5.20	12.6	+/- .3	9.8	+/- .2
023	133	5.70	13.5	+/- .0	10.5	+/- .0
024	157	7.50	13.2	+/- .1	10.2	+/- .1
025	184	6.30	13.7	+/- .2	10.7	+/- .2



YANKEE ROWE

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811223-820416 116 DAYS  
 FIELD TIME 820105-820409 95 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/ (deg.)	DIST (mi.)	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
027	225	5.90	14.5 +- .5		11.2 +- .4	
029	269	3.50	13.8 +- .5		10.7 +- .4	
032	342	3.30	14.9 +- .0		11.6 +- .0	
034	48	7.25	15.4 +- .3		11.9 +- .2	
035	39	2.25	13.4 +- .1		10.4 +- .1	
047	260	9.60	16.2 +- .5		12.6 +- .4	
048	261	9.00	16.0 +- .0		12.4 +- .0	
050	CTL	TLD	8.1 +- .4		6.3 +- .3	

YANKEE ROWE  
 FOR THE PERIOD 811222-820416 116 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	13.5 +- 4.4	2
11.25-33.75 (NNE)	9.9 +- 0.0	1
33.75-56.25 (NE)	10.9 +- .9	3
56.25-78.75 (ENE)	0.0 +- 0.0	0
78.75-101.25 (E)	10.9 +- 0.0	1
101.25-123.75 (ESE)	10.2 +- .5	2
123.75-146.25 (SE)	10.6 +- .2	2
146.25-168.75 (SSE)	10.6 +- .5	2
168.75-191.25 (S)	10.7 +- .1	2
191.25-213.75 (SSW)	10.2 +- 0.0	1
213.75-236.25 (SW)	11.1 +- .1	2
236.25-258.75 (WSW)	13.8 +- 0.0	1
258.75-281.25 (W)	11.6 +- 1.1	4
281.25-303.75 (WNW)	10.1 +- 0.0	1
303.75-326.25 (NW)	11.0 +- 0.0	1
326.25-348.75 (NNW)	11.4 +- .2	2

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE +- Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	11.6 +- 2.0	10
2-5	10.7 +- .5	8
>5	11.1 +- 1.0	9

## ZIMMER

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 810930-820406 189 DAYS  
 FIELD TIME 811104-820329 146 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)	TLD	EXPOSURE(mR) +- Std. Dev.		mR/Std. Dev. +- Std. Dev.	
100	CTL	TLD	20.1 +- .2		9.6 +- .1	
51	182	0.40	35.2 +- .4		16.7 +- .2	
52	150	1.00	36.1 +- .8		17.2 +- .4	
53	133	1.10	34.6 +- .4		16.5 +- .2	
54	106	2.10	36.5 +- .7		17.4 +- .3	
55	82	2.90	33.3 +- 2.5		15.9 +- 1.2	
56	91	4.40	32.8 +- 1.0		15.6 +- .5	
57	106	7.30	32.8 +- .3		15.6 +- .1	
58	135	6.60	38.8 +- .7		18.5 +- .3	
59	163	4.20	37.3 +- 1.6		17.8 +- .8	
60	129	3.90	34.6 +- .6		16.5 +- .3	
61	115	4.60	33.3 +- 0.0		15.9 +- 0.0	
62	74	3.90	35.7 +- .2		17.0 +- .1	
63	50	3.60	35.8 +- 1.3		17.0 +- .6	
64	22	4.10	33.9 +- 0.0		16.1 +- 0.0	
65	354	3.70	34.7 +- 1.7		16.5 +- .8	
66	359	2.10	35.7 +- .6		17.0 +- .3	
67	26	2.00	36.1 +- .1		17.2 +- .0	
68	47	1.60	36.1 +- 2.7		17.2 +- 1.3	
69	72	0.80	32.8 +- .4		15.6 +- .2	

## ZIMMER

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 810930-820406 189 DAYS  
 FIELD TIME 811104-820329 146 DAYS

NRC STATION	LOCATION		INTEGRATED EXPOSURE (mR)		EXPOSURE RATE	
	AZIMUTH (deg.)	DIST (mi.)	+ -	Std. Dev.	mR/Std. Qtr.	+ - Std. Dev.
70	335	7.30	35.7	+ - .3	17.0	+ - .1
71	332	4.00	30.6	+ - .5	14.5	+ - .2
72	335	1.80	36.3	+ - .6	17.3	+ - .3
73	310	2.10	32.9	+ - .1	15.7	+ - .0
74	286	1.90	36.1	+ - .3	17.2	+ - .1
75	276	1.40	34.0	+ - .5	16.2	+ - .2
76	247	0.90	37.6	+ - .6	17.9	+ - .3
77	218	1.10	33.9	+ - .1	16.1	+ - .0
78	200	1.90	35.7	+ - .7	17.0	+ - .3
79	191	4.50	37.0	+ - .3	17.6	+ - .1
80	212	4.40	34.5	+ - .6	16.4	+ - .3
82	248	3.50	37.2	+ - .5	17.7	+ - .2
83	270	3.70	33.1	+ - 0.0	15.8	+ - 0.0
84	292	4.50	36.6	+ - .4	17.4	+ - .2
85	317	4.60	37.7	+ - .9	17.9	+ - .5
86	106	19.5	33.4	+ - .9	15.9	+ - .4
87	107	20.0	37.2	+ - .6	17.7	+ - .3
88	107	20.0	38.8	+ - .2	18.5	+ - .1

ZIMMER  
 FOR THE PERIOD 810930-820406 189 DAYS

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.8 $\pm$ .3	2
11.25-33.75 (NNE)	16.7 $\pm$ .7	2
33.75-56.25 (NE)	17.1 $\pm$ .1	2
56.25-78.75 (ENE)	16.3 $\pm$ 1.0	2
78.75-101.25 (E)	15.7 $\pm$ .2	2
101.25-123.75 (ESE)	16.8 $\pm$ 1.2	6
123.75-146.25 (SE)	17.1 $\pm$ 1.1	3
146.25-168.75 (SSE)	17.5 $\pm$ .4	2
168.75-191.25 (S)	17.2 $\pm$ .6	2
191.25-213.75 (SSW)	16.7 $\pm$ .4	2
213.75-236.25 (SW)	16.1 $\pm$ 0.0	1
236.25-258.75 (WSW)	17.8 $\pm$ .2	2
258.75-281.25 (W)	16.0 $\pm$ .3	2
281.25-303.75 (WNW)	17.3 $\pm$ .2	2
303.75-326.25 (NW)	16.8 $\pm$ 1.6	2
326.25-348.75 (NNW)	16.3 $\pm$ 1.5	3

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.8 $\pm$ .6	12
2-5	16.6 $\pm$ .9	19
>5	17.2 $\pm$ 1.2	6

## ZION

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
 FOR THE PERIOD 811217-820405 110 DAYS  
 FIELD TIME 820116-820329 73 DAYS

NRC STATION	LOCATION		INTEGRATED		EXPOSURE RATE	
	AZIMUTH/DIST (deg.) (mi.)		EXPOSURE(mR) +- Std. Dev.		mR/Std.Qtr. +- Std. Dev.	
001	287	1.00	22.3 +- .1		18.2 +- .1	
002	192	1.00	17.7 +- .9		14.4 +- .7	
003	187	1.50	20.4 +- .7		16.7 +- .6	
004	227	2.40	21.4 +- .4		17.5 +- .4	
005	257	1.80	15.0 +- .6		12.3 +- .5	
006	264	1.20	20.7 +- .3		16.9 +- .3	
007	287	1.60	20.9 +- .3		17.1 +- .2	
008	320	1.80	20.5 +- 1.0		16.7 +- .8	
009	343	2.60	20.4 +- .1		16.7 +- .1	
010	356	4.50	19.6 +- .3		16.1 +- .3	
011	337	4.50	13.6 +- .3		11.1 +- .3	
012	310	4.00	21.2 +- .6		17.4 +- .5	
013	293	3.50	20.1 +- .0		16.4 +- .0	
014	280	4.50	22.1 +- .4		18.1 +- .3	
015	239	3.20	21.0 +- 1.3		17.2 +- 1.1	
016	227	3.50	22.2 +- .9		18.1 +- .7	
017	210	4.50	20.5 +- .1		16.8 +- .1	
018	206	2.80	21.5 +- .4		17.6 +- .4	
019	342	2.70	20.4 +- .2		16.7 +- .1	
020	197	14.7	16.0 +- .4		13.1 +- .3	

ZION

TLD DIRECT RADIATION ENVIRONMENTAL MONITORING  
FOR THE PERIOD 811217-820405 110 DAYS  
FIELD TIME 820116-820329 73 DAYS

NRC STATION	LOCATION AZIMUTH/DIST (deg.) (mi.)	INTEGRATED EXPOSURE (mR) +- Std. Dev.	EXPOSURE RATE mR/Std. Dev. +- Std. Dev.
021	352 7.90	19.7 +- .2	16.1 +- .2
022	348 8.30	21.3 +- .2	17.4 +- .1
023	336 8.50	19.1 +- .7	15.6 +- .6
025	220 6.30	20.1 +- .6	16.4 +- .5
026	195 8.00	20.2 +- .2	16.6 +- .2
028	197 14.7	22.5 +- .3	18.4 +- .2
031	229 8.00	20.8 +- .3	17.0 +- .2
032	199 15.3	21.0 +- .6	17.2 +- .5
050	CTL TLD	23.5 +- .1	19.2 +- .1

ZION  
 FOR THE PERIOD 811217-820405 110 DAYS  
 TLD DIRECT RADIATION ENVIRONMENTAL MONITORING

AZIMUTH (deg.)	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
348.75-11.25 (N)	16.1 $\pm$ .8	2
11.25-33.75 (NNE)	0.0 $\pm$ 0.0	0
33.75-56.25 (NE)	0.0 $\pm$ 0.0	0
56.25-78.75 (ENE)	0.0 $\pm$ 0.0	0
78.75-101.25 (E)	0.0 $\pm$ 0.0	0
101.25-123.75 (ESE)	0.0 $\pm$ 0.0	0
123.75-146.25 (SE)	0.0 $\pm$ 0.0	0
146.25-168.75 (SSE)	0.0 $\pm$ 0.0	0
168.75-191.25 (S)	16.7 $\pm$ 0.0	1
191.25-213.75 (SSW)	16.3 $\pm$ 1.9	7
213.75-236.25 (SW)	17.3 $\pm$ .7	4
236.25-258.75 (WSW)	14.8 $\pm$ 3.5	2
258.75-281.25 (W)	17.5 $\pm$ .8	2
281.25-303.75 (WNW)	17.2 $\pm$ .9	3
303.75-326.25 (NW)	17.1 $\pm$ .4	2
326.25-348.75 (NNW)	15.5 $\pm$ 2.5	7

DISTANCE (mi) FROM THE REACTOR	AVER. EXPOSURE $\pm$ Std.Dev. (mR/Std.Qtr.)	# IN GROUP
0-2	16.1 $\pm$ 2.0	7
2-5	16.6 $\pm$ 1.8	12
>5	16.4 $\pm$ 1.5	9



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