NRC TLD Direct Radiation Monitoring Network

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R. Struckmeyer

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

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ABSTRACT

This report presents the results of the NRC Direct Radiation Monitoring Network for the first quarter of 1997. It provides the ambient radiation levels measured in the vicinity of 74 sites throughout the United States. In addition, it describes the recent intercomparison of environmental dosimeters and provides an analysis of the data.

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SUMMARY

The U. S. Nuclear Regulatory Commission (NRC), in cooperation with participating states, operates the Direct Radiation Monitoring Network to provide continuous measurement of the ambient radiation levels around licensed NRC facilities, primarily power reactors. Ambient radiation levels result from (1) naturally occurring radionuclides present in the soil, (2) cosmic radiation constantly bombarding the earth from outer space, and (3) the contribution, if any, from the monitored facilities and other man-made sources. The Network is intended to measure radiation levels during routine facility operations and to establish background radiation levels used to assess the radiological impact of an unusual condition, such as an accident. This report presents the radiation levels measured around all facilities in the Network for the first quarter of 1997. A complete listing of the site facilities monitored is included. In some instances, two power reactor facilities are monitored by the same set of dosimeters (e.g., Kewaunee and Point Beach).

All radiation measurements are made using small, passive detectors called thermoluminescent dosimeters (TLDs), which provide a quantitative measurement of the radiation levels in the area in which they are placed. Each site is monitored by arranging approximately 40 to 50 TLD stations in two concentric rings extending to about five miles from the facility. All TLD stations are outside the site boundary of the facility. A complete description of the program can be found in NUREG-0837, Volume 2, Number 4. A similar description can also be found in the fourth quarter report of each subsequent year. The National Institute of Standards and Technology (NIST), formerly the National Bureau of Standards, has performed an independent study of the following characteristics of the NRC dosimetry system: energy response, angular dependence, temperature and humidity sensitivity, fading, light dependence, self-irradiation, and reproducibility. NIST has also tested the response of the NRC's dosimetry system against the requirements of ANSI N545-1975 and NRC Regulatory Guide 4.13. Details of this testing can be found in NUREG/CR-3775.

The radiation levels are presented as gross and net exposures. The gross exposure includes (1) naturally occurring background radiation, (2) radiation levels resulting from a facility's operation, and (3) the exposure received during transport and storage of the TLD. Net exposures are obtained by subtracting an estimate of the exposure received by the dosimeters during transit from the gross exposures. All exposures are normalized to a 90-day quarter (standard quarter) and reported in units of milliroentgens (mR). Station numbers for which no data are reported include (1) stations that have been deleted, (2) stations for which the TLD was lost during the quarter, and (3) stations for which the TLD was damaged. When control dosimeter data are unavailable, no net exposures are calculated.

Three sets of data are presented for each site. The first set includes (1) the TLD station number, (2) its direction and distance from the site, (3) the integrated gross exposure for the period, (4) the net exposure normalized to a 90-day quarter (standard quarter), and (4) the historical average and standard deviation for the station. All measurements for the current quarter are listed with their respective random and total uncertainties. The uncertainties are listed in the following format:

$$X \pm S_x; U_x$$

where X = value of the result
 S_x = random uncertainty expressed as one standard deviation
 U_x = combined total uncertainty

The second set of data summarizes the average net exposure measured in each of the 16 standard windrose sectors around the facility, normalized to a standard quarter. The third set of data summarizes the average net exposure measured at three ranges of distances from the facility, normalized to a standard quarter. When average net exposures cannot be reported because of the unavailability of the site's transit control dosimeter, the average gross exposures, normalized to a standard quarter, are reported in these two sets of data. The "Std.Dev." refers to the standard deviation of the measurements made in each sector and range, respectively.

This report is one of a continuing series of technical reports covering the results and experiences of the operation of the NRC TLD Direct Radiation Monitoring Network. Suggestions on methods to improve the presentation or the analysis of the data contained in this report are appreciated and should be submitted to NRC Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406, ATTN: Radiation Dosimetry Specialist.

1. INTERCOMPARISON

1.1 Description

The Eleventh International Intercomparison of Environmental Dosimeters was performed by the U.S. Department of Energy's Environmental Measurements Laboratory in collaboration with Brookhaven National Laboratory in 1996. One hundred and twenty one foreign and domestic dosimetry laboratories participated in this study, including the NRC TLD Laboratory.

Each complete set submitted by the participants consisted of two dosimeters in each of four categories (for a total of eight): Field, Lab Cs-137 (gamma ray energy 662 keV), Lab Am-241 (gamma ray energy 60 keV), and Control. Upon completion of exposures, all sets of dosimeters were returned to the participants. The NRC TLD Laboratory submitted two sets of dosimeters.

1.2 Results

Following their return from the sponsor, the NRC TLD Laboratory read its exposed dosimeters (TLDs) and controls, then determined the element calibration factors (ECFs) of those TLDs, and calculated the net exposure by applying the ECF correction and subtracting the transit exposure. Upon analysis, one field TLD (in set "B") was found to be damaged. The likely cause of this damage was absorption of moisture during the period of field exposure. The result for this set of dosimeters is based on one TLD rather than two.

The results shown in Table 1 are from the Eleventh International Intercomparison of Environmental Dosimeters Preliminary Report, April 1997. The data in that report were presented in units of microGray (μGy). To be consistent with the way data are presented in this report of the NRC TLD Direct Radiation Monitoring Network, the data have been converted to units of milliroentgen (mR), using a factor of $8.8 \mu\text{Gy}$ per mR. The final column provides the mean and standard deviation of the results in each category reported by all participants, excluding some outliers.

Table 1. Results for NRC TLD Intercomparison Sets

Exposure Type	Est. Delivered Exposure $\pm$ uncertainty (mR)	Set	NRC Measured Exposure (mean $\pm$ s.d.) (mR)	Ratio*	All Participants (mean $\pm$ s.d.) (mR)
Field Site	19.0 ± 1.1	A	17.3 ± 3.3	0.91	18.9 ± 7.9
		B	17.8 ± 3.4	0.94	
Cs-137 (lab)	58.1 ± 1.3	A	57.2 ± 9.8	0.98	55.2 ± 9.9
		B	58.5 ± 10.0	1.01	
Am-241 (lab)	40.5 ± 1.8	A	29.0 ± 5.8	0.72	35.3 ± 9.2
		B	29.8 ± 5.9	0.74	

*Ratio is defined as: NRC Measured Exposure / Est. Delivered Exposure

1.3 Discussion

The NRC's results are in excellent agreement with the Cs-137 (lab) exposures reported by the sponsor of the Eleventh International Intercomparison of Environmental Dosimeters. The results for the Field Site were very good, and the results for the Am-241 (lab) exposures were acceptable, given the criteria recommended in the American National Standards Institute standard for environmental thermoluminescent dosimetry (ANSI-N545). This standard specifies that field results should be within 30 percent of the delivered exposure and that a dosimeter's response to photons of energy less than 80 keV (such as Am-241) "shall not be enhanced by more than a factor of two" when compared to the response of the calibration source. These criteria may be restated in terms of acceptable ratios: for field exposures, between 0.7 and 1.3; and for Am-241, between 0.5 and 2.0.

The NRC TLD Laboratory will report the results of future intercomparison studies as they become available.

2. DATA ANALYSIS

The analysis of the data for the first quarter indicated that at some of the monitored sites, the results for a few TLDs were outside the range that is normally expected for those locations. A net result is considered to be within the expected range if it is within plus or minus three times the standard deviation of the historical mean. The "historical range" column on the first page of data for each site shows the mean and one standard deviation of previous net results for each TLD location. The result for any particular location may be within, above, or below this range. Some of the atypical results readily lend themselves to explanation, while others do not. A footnote is provided on the first data page for those sites for which one or more TLDs were found to be above the expected range. The affected sites were Haddam Neck, Three Mile Island, Trojan, Vogtle(SC), and Wolf Creek. There is no indication that any of the atypical results are related to facility operations.

The following sites had locations for which one or more TLDs were found to be below the expected range: Fermi, Ft. St. Vrain, Kewaunee/Pt. Beach, Oconee, Oyster Creek, Prairie Island, and Salem(NJ). Most of these are no more than 1 to 2 mR below the expected range. Possible reasons for these results include weather-related factors, missing or damaged transit control dosimeter, and/or a larger-than-normal transit dose. An unusually high transit dose could be the result of incorrect handling of the transit control dosimeter, such as forgetting to place it in the lead shield for the duration of the field monitoring period. In those cases for which slightly lower gross exposure data are obtained in combination with a slightly higher transit dose, the calculated normalized net exposure rates can be lower than normal. A review of the data for these sites did not reveal any obvious reason for the lower-than-normal results. The gross exposure data at Ft. St. Vrain appeared to be somewhat lower than those observed for the preceding three quarters, but consistent with those observed in the first quarter of the previous year. Such results may be related to the amount of precipitation and extent of snow cover.

With the exception of the affected TLDs at Wolf Creek and Three Mile Island, no causal agents were obvious that would account for the results outside (and above) the expected ranges. At Wolf Creek, a change in the location of TLD station 37 (in order to reduce vandalism) apparently accounts for the slightly higher result when compared to previous quarters. At Three Mile Island, the results for TLD stations 25, 29, 30, 45, and 49 are shown for two quarters. These TLDs are routinely not collected at the end of the fourth quarter because they can be reached only by small boat, and conditions on the river generally are not favorable for access to these locations at that time of year.

The contractors who exchange the TLDs at Haddam Neck, Trojan, and Vogtle(SC) were asked whether any unusual conditions existed in the vicinity of the TLDs with readings above the expected range. In each case, the contractor stated that no unusual conditions were noted. In the case of the result for TLD station 31 at Vogtle(SC), which was almost a factor of three greater than normal, the contractor indicated that a TLD (identified as station 80-0102), which is maintained by the state of South Carolina at that same location, had a normal reading of approximately 16 mR (normalized to a standard 90-day quarter). This may indicate that the NRC TLD was damaged.

The example of a probable cause for the atypical result at Wolf Creek, where the TLD had been moved, serves to illustrate one among many possible explanations that have no relation to the monitored facility. Unfortunately, obtaining such information is often difficult.

As noted previously, weather is another example of a causal agent that could influence TLD results. The amount of naturally occurring radon and its daughter products in the lower atmosphere is a complex function of the wind, the amount of precipitation, and the resultant saturation of the ground with rain water (or coverage by ice or packed snow). The higher concentrations of radon that sometimes occur as a result of a combination of weather-related circumstances can give rise to TLD results that are somewhat higher than normal. Some of these could fall slightly outside the expected range.

Systematic uncertainties, most notably the calibration uncertainty, could influence the data by introducing a bias in the overall results. Some of the net results that otherwise would have been near the limit of the normal range could therefore fall slightly outside this range.

The atypical results at other sites noted in the report were carefully reviewed. The gross exposure data for the affected TLDs appeared to be consistent with previous quarters. The data also were reviewed from the perspective of each TLD's proximity to the site and whether any pattern of higher than expected exposures could be discerned. No such patterns were detected. Many of the affected TLDs were at relatively great distances from their respective facilities, with no indication of unusual results at locations closer to the facilities. Furthermore, no airborne radioactivity was released from any of these sites at levels that could result in exposures offsite that would be discernible from the surrounding background radiation levels. Such releases, if they occurred, would be detected by other sensitive radiation monitoring instruments either at the point of release or at other on-site or off-site locations. The NRC TLD Direct Radiation Monitoring Network is intended to aid in the assessment of the radiological impact of an unusual condition, such as abnormally large releases of airborne radioactive material, but it will not be the primary indicator that releases have occurred.

Table 2

Sites Monitored During the First Quarter 1997

1.	Arkansas Nuclear One	37.	Millstone
2.	Beaver Valley	38.	Monticello
3.	Big Rock Point	39.	North Anna
4.	Braidwood	40.	Oconee
5.	Browns Ferry	41.	Oyster Creek
6.	Brunswick	42.	Palisades
7.	Byron	43.	Palo Verde
8.	Callaway	44.	Peach Bottom
9.	Calvert Cliffs	45.	Perry
10.	Catawba	46.	Pilgrim
11.	Clinton	47.	Prairie Island
12.	Comanche Peak	48.	Quad Cities
13.	Cooper	49.	Rancho Seco
14.	Crystal River	50.	River Bend
15.	Davis Besse	51.	Robinson
16.	D.C. Cook	52.	Salem/Hope Creek
17.	Diablo Canyon	53.	San Onofre
18.	Dresden	54.	Seabrook
19.	Duane Arnold	55.	Sequoyah
20.	Farley	56.	South Texas
21.	Fermi	57.	St. Lucie
22.	FitzPatrick/Nine Mile Point	58.	Summer
23.	Fort Calhoun	59.	Surry
24.	Fort St. Vrain	60.	Susquehanna
25.	Ginna	61.	Three Mile Island
26.	Grand Gulf	62.	Trojan
27.	Haddam Neck	63.	Turkey Point
28.	Harris	64.	Vermont Yankee
29.	Hatch	65.	Vogtle
30.	Indian Point	66.	Washington Nuclear 2
31.	Kewaunee/Point Beach	67.	Waterford
32.	Lacrosse	68.	Watts Bar
33.	LaSalle	69.	Wolf Creek
34.	Limerick	70.	Yankee Rowe
35.	Maine Yankee	71.	Zion
36.	McGuire		

**3. ENVIRONMENTAL DIRECT RADIATION MONITORING DATA FOR NRC
LICENSED NUCLEAR POWER REACTORS**

Individual site data reports begin on the following page.

ARKANSAS

TLD Direct Radiation Environmental Monitoring

For the period 961209-970417 130 Days

Field Time: 85 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	4	0.4	19.8	+- 0.6; 3.0	16.2	+- 0.7; 4.3	17.2	+- 1.2
2	353	4.1	21.3	+- 0.6; 3.2	17.8	+- 0.8; 4.5	17.4	+- 1.1
3	32	1.3	21.3	+- 0.6; 3.2	17.8	+- 0.8; 4.5	18.1	+- 1.0
4	13	3.3	20.8	+- 0.6; 3.1	17.2	+- 0.8; 4.5	16.8	+- 1.2
5	53	1.5	Missing Dosimeter		No Net Data		17.4	+- 1.2
6	37	3.6	18.9	+- 0.6; 2.8	15.2	+- 0.7; 4.2	16.6	+- 1.1
7	78	2.5	22.4	+- 0.7; 3.4	19.0	+- 0.8; 4.7	18.8	+- 1.3
8	60	3.2	22.5	+- 0.7; 3.4	19.1	+- 0.8; 4.7	20.1	+- 2.3
9	92	0.5	22.1	+- 0.7; 3.3	18.6	+- 0.8; 4.6	19.1	+- 1.5
10	83	5.5	19.9	+- 0.6; 3.0	16.3	+- 0.7; 4.4	17.6	+- 1.1
11	122	2.1	19.5	+- 0.6; 2.9	15.9	+- 0.7; 4.3	16.4	+- 1.2
12	109	6.8	20.8	+- 0.6; 3.1	17.3	+- 0.8; 4.5	18.1	+- 1.2
13	138	2.6	18.3	+- 0.5; 2.7	14.6	+- 0.7; 4.2	15.2	+- 1.2
14	130	4.9	19.9	+- 0.6; 3.0	16.4	+- 0.7; 4.4	16.1	+- 1.2
16	167	4.4	20.5	+- 0.6; 3.1	17.0	+- 0.7; 4.4	17.4	+- 1.0
17	171	0.4	19.7	+- 0.6; 3.0	16.1	+- 0.7; 4.3	17.1	+- 1.3
18	189	3.2	20.5	+- 0.6; 3.1	16.9	+- 0.7; 4.4	17.5	+- 1.2
19	205	2.9	19.9	+- 0.6; 3.0	16.4	+- 0.7; 4.4	16.9	+- 1.3
20	195	5.8	19.1	+- 0.6; 2.9	15.5	+- 0.7; 4.3	16.1	+- 1.6
21	235	0.5	22.1	+- 0.7; 3.3	18.7	+- 0.8; 4.6	19.5	+- 1.4
22	230	3.6	17.9	+- 0.5; 2.7	14.2	+- 0.7; 4.1	14.5	+- 1.3
23	257	2.8	18.7	+- 0.6; 2.8	15.1	+- 0.7; 4.2	16.0	+- 1.6
24	243	4.5	18.4	+- 0.6; 2.8	14.8	+- 0.7; 4.2	16.6	+- 1.4
25	279	1.2	22.5	+- 0.7; 3.4	19.1	+- 0.8; 4.7	20.1	+- 1.3
26	263	4.3	21.1	+- 0.6; 3.2	17.6	+- 0.8; 4.5	17.4	+- 1.3
27	298	0.4	21.4	+- 0.6; 3.2	17.9	+- 0.8; 4.5	18.8	+- 1.4
28	293	5.8	20.7	+- 0.6; 3.1	17.2	+- 0.8; 4.5	17.1	+- 1.2
29	326	1.9	21.7	+- 0.6; 3.2	18.2	+- 0.8; 4.6	18.0	+- 1.1
30	308	4.8	20.5	+- 0.6; 3.1	16.9	+- 0.7; 4.4	17.8	+- 1.4
31	345	1.3	22.3	+- 0.7; 3.3	18.9	+- 0.8; 4.6	18.6	+- 1.4
32	335	4.2	18.9	+- 0.6; 2.8	15.3	+- 0.7; 4.2	15.8	+- 1.4
33	110	0.8	21.1	+- 0.6; 3.2	17.6	+- 0.8; 4.5	18.6	+- 1.5
39	112	6.0	21.5	+- 0.6; 3.2	18.0	+- 0.8; 4.6	18.4	+- 1.4
40	147	8.0	21.3	+- 0.6; 3.2	17.8	+- 0.8; 4.5	18.3	+- 1.2
41	106	17.0	20.3	+- 0.6; 3.0	16.7	+- 0.7; 4.4	17.7	+- 1.1
42	310	17.0	19.2	+- 0.6; 2.9	15.6	+- 0.7; 4.3	16.0	+- 1.3
43	105	5.2	21.0	+- 0.6; 3.1	17.4	+- 0.8; 4.5	18.2	+- 1.5
44	315	13.0	21.0	+- 0.6; 3.2	17.5	+- 0.8; 4.5	17.6	+- 1.2
45	47	8.9	18.9	+- 0.6; 2.8	15.2	+- 0.7; 4.2	15.6	+- 1.6
46	115	8.3	21.8	+- 0.7; 3.3	18.3	+- 0.8; 4.6	18.4	+- 1.5
47	208	20.0	20.1	+- 0.6; 3.0	16.6	+- 0.7; 4.4	17.0	+- 1.3
48	179	19.0	20.8	+- 0.6; 3.1	17.3	+- 0.8; 4.5	17.2	+- 1.3
49	150	22.0	21.6	+- 0.6; 3.2	18.1	+- 0.8; 4.6	18.2	+- 1.5

Transit Dose = 4.5 +- 0.3; 2.8

ARKANSAS

For the period 961209-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.0 +- 1.1	2
11.26 - 33.75 NNE	17.5 +- 0.4	2
33.76 - 56.25 NE	15.2 +- 0.0	2
56.26 - 78.75 ENE	19.0 +- 0.0	2
78.76 - 101.25 E	17.5 +- 1.6	2
101.26 - 123.75 ESE	17.3 +- 0.8	7
123.76 - 146.25 SE	15.5 +- 1.2	2
146.26 - 168.75 SSE	17.4 +- 0.6	2
168.76 - 191.25 S	16.5 +- 0.6	2
191.26 - 213.75 SSW	15.9 +- 0.6	2
213.76 - 236.25 SW	16.5 +- 3.1	2
236.26 - 258.75 WSW	14.9 +- 0.2	2
258.76 - 281.25 W	18.3 +- 1.1	2
281.26 - 303.75 WNW	17.5 +- 0.5	2
303.76 - 326.25 NW	17.0 +- 1.1	4
326.26 - 348.75 NNW	17.1 +- 2.5	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.9 +- 1.0	10
2 - 5	16.4 +- 1.5	17
> 5	16.9 +- 1.0	12
Upwind Control	17.3 +- 0.8	3

NRC TLD DOSES FOR ARKANSAS AREA

Miles

0 2 4

Legend

Water
Highways

Railroads
Roads

Plant..site

BEAVER VALLEY

TLD Direct Radiation Environmental Monitoring

For the period 961211-970421 132 Days

Field Time: 93 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	340	15.8	22.5	+- 0.7; 3.4	No Net Data		16.7	+- 1.2
2	3	13.1	23.2	+- 0.7; 3.5	No Net Data		17.1	+- 1.4
4	29	11.9	Missing Dosimeter		No Net Data		19.2	+- 2.4
5	53	8.2	25.0	+- 0.8; 3.8	No Net Data		18.3	+- 1.3
6	58	9.1	25.0	+- 0.8; 3.8	No Net Data		19.2	+- 1.2
7	97	8.0	26.0	+- 0.8; 3.9	No Net Data		19.5	+- 1.3
8	110	4.2	24.8	+- 0.7; 3.7	No Net Data		18.6	+- 1.4
9	111	1.9	26.3	+- 0.8; 3.9	No Net Data		19.9	+- 1.3
10	92	2.2	25.0	+- 0.7; 3.7	No Net Data		19.3	+- 1.2
11	64	3.6	24.6	+- 0.7; 3.7	No Net Data		19.3	+- 1.5
12	148	4.0	26.8	+- 0.8; 4.0	No Net Data		20.7	+- 1.3
13	171	4.4	24.7	+- 0.7; 3.7	No Net Data		18.5	+- 1.2
14	183	4.4	23.8	+- 0.7; 3.6	No Net Data		18.4	+- 1.3
15	198	3.6	24.2	+- 0.7; 3.6	No Net Data		18.4	+- 1.4
16	254	5.7	24.3	+- 0.7; 3.6	No Net Data		18.1	+- 1.0
17	267	6.5	23.3	+- 0.7; 3.5	No Net Data		17.3	+- 1.5
18	231	2.5	23.9	+- 0.7; 3.6	No Net Data		18.4	+- 1.3
19	266	2.5	25.5	+- 0.8; 3.8	No Net Data		19.9	+- 1.4
20	291	3.8	22.4	+- 0.7; 3.4	No Net Data		16.8	+- 1.7
21	287	1.8	27.0	+- 0.8; 4.1	No Net Data		20.7	+- 1.3
22	219	1.5	23.1	+- 0.7; 3.5	No Net Data		17.5	+- 1.2
23	252	2.4	28.6	+- 0.9; 4.3	No Net Data		21.1	+- 1.8
24	207	2.2	25.9	+- 0.8; 3.9	No Net Data		19.4	+- 1.3
25	187	2.2	25.8	+- 0.8; 3.9	No Net Data		19.8	+- 1.3
26	158	2.2	24.7	+- 0.7; 3.7	No Net Data		18.6	+- 1.6
27	135	1.9	25.4	+- 0.8; 3.8	No Net Data		19.4	+- 1.6
28	99	1.4	29.3	+- 0.9; 4.4	No Net Data		20.2	+- 1.3
29	64	1.4	24.5	+- 0.7; 3.7	No Net Data		18.2	+- 1.3
30	53	1.0	24.9	+- 0.7; 3.7	No Net Data		18.9	+- 1.3
31	320	1.4	Missing Dosimeter		No Net Data		21.5	+- 1.6
32	320	3.5	23.7	+- 0.7; 3.6	No Net Data		18.4	+- 1.7
33	335	2.5	25.1	+- 0.8; 3.8	No Net Data		18.8	+- 1.5
34	340	5.2	21.3	+- 0.6; 3.2	No Net Data		16.3	+- 2.1
35	4	3.5	25.9	+- 0.8; 3.9	No Net Data		19.5	+- 1.3
36	23	3.2	26.9	+- 0.8; 4.0	No Net Data		21.5	+- 1.7
37	42	2.8	23.4	+- 0.7; 3.5	No Net Data		16.5	+- 1.2
38	27	1.6	21.6	+- 0.6; 3.2	No Net Data		17.0	+- 1.6
39	348	1.6	24.7	+- 0.7; 3.7	No Net Data		18.8	+- 1.5
40	340	15.8	22.9	+- 0.7; 3.4	No Net Data		16.1	+- 1.3
41	340	15.8	23.8	+- 0.7; 3.6	No Net Data		16.8	+- 1.0

No Transit Dose Calculated. (Transit Control Is Damaged.)

BEAVER VALLEY
For the period 961211-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.7 +- 1.3	2
11.26 - 33.75 NNE	16.5 +- 2.5	2
33.76 - 56.25 NE	16.7 +- 0.6	3
56.26 - 78.75 ENE	16.8 +- 0.2	3
78.76 - 101.25 E	18.3 +- 1.6	3
101.26 - 123.75 ESE	17.4 +- 0.7	2
123.76 - 146.25 SE	17.3 +- 0.0	1
146.26 - 168.75 SSE	17.5 +- 1.0	2
168.76 - 191.25 S	16.9 +- 0.7	3
191.26 - 213.75 SSW	17.1 +- 0.8	2
213.76 - 236.25 SW	16.0 +- 0.4	2
236.26 - 258.75 WSW	18.0 +- 2.1	2
258.76 - 281.25 W	16.6 +- 1.0	2
281.26 - 303.75 WNW	16.8 +- 2.2	2
303.76 - 326.25 NW	16.2 +- 0.0	1
326.26 - 348.75 NNW	16.2 +- 1.4	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.2 +- 1.5	9
2 - 5	17.1 +- 1.0	19
> 5	16.4 +- 1.1	7
Upwind Control	15.7 +- 0.5	3

NRC TLD DOSES FOR BEAVER VALLEY AREA

Miles

Legend

Water

Highways

Roads

Plant..site

BIG ROCK

TLD Direct Radiation Environmental Monitoring

For the period 961210-970429 141 Days

Field Time: 92 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	208	4.9	Damaged Dosimeter		No Net Data		13.1 +- 0.9	
2	220	3.6	17.1 +- 0.5; 2.6		11.6 +- 0.6; 3.9		12.1 +- 0.9	
3	204	2.4	17.4 +- 0.5; 2.6		11.9 +- 0.6; 4.0		12.3 +- 0.9	
4	176	3.3	17.0 +- 0.5; 2.6		11.6 +- 0.6; 3.9		12.2 +- 1.0	
5	161	4.6	16.0 +- 0.5; 2.4		10.6 +- 0.6; 3.8		12.5 +- 0.9	
6	133	4.7	15.9 +- 0.5; 2.4		10.5 +- 0.6; 3.8		13.9 +- 1.4	
7	116	3.7	17.3 +- 0.5; 2.6		11.8 +- 0.6; 4.0		14.4 +- 1.2	
8	111	4.7	17.2 +- 0.5; 2.6		11.7 +- 0.6; 3.9		14.0 +- 1.6	
9	98	4.5	17.2 +- 0.5; 2.6		11.7 +- 0.6; 3.9		12.7 +- 0.8	
10	88	12.0	17.2 +- 0.5; 2.6		11.7 +- 0.6; 3.9		12.1 +- 0.8	
11	83	16.0	16.9 +- 0.5; 2.5		11.4 +- 0.6; 3.9		12.2 +- 1.4	
12	83	16.0	16.8 +- 0.5; 2.5		11.4 +- 0.6; 3.9		12.0 +- 1.0	
13	83	16.0	17.4 +- 0.5; 2.6		12.0 +- 0.6; 4.0		12.3 +- 1.2	
14	77	3.4	16.4 +- 0.5; 2.5		11.0 +- 0.6; 3.9		11.6 +- 0.8	
15	96	1.8	17.9 +- 0.5; 2.7		12.4 +- 0.6; 4.0		13.4 +- 0.9	
16	118	2.0	17.0 +- 0.5; 2.5		11.5 +- 0.6; 3.9		13.2 +- 1.1	
17	134	2.0	16.6 +- 0.5; 2.5		11.2 +- 0.6; 3.9		13.1 +- 1.1	
18	222	1.9	18.3 +- 0.5; 2.7		12.8 +- 0.7; 4.0		11.8 +- 1.6	
19	194	1.4	17.5 +- 0.5; 2.6		12.0 +- 0.6; 4.0		14.5 +- 1.3	
20	179	1.5	16.8 +- 0.5; 2.5		11.3 +- 0.6; 3.9		12.8 +- 0.9	
21	153	1.1	16.0 +- 0.5; 2.4		10.6 +- 0.6; 3.8		12.5 +- 1.0	

Transit Dose = 5.2 +- 0.4; 3.1

BIG ROCK
For the period 961210-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	11.0 +- 0.0	1
78.76 - 101.25 E	11.9 +- 0.4	3
101.26 - 123.75 ESE	11.7 +- 0.2	3
123.76 - 146.25 SE	10.9 +- 0.5	2
146.26 - 168.75 SSE	10.6 +- 0.0	2
168.76 - 191.25 S	11.5 +- 0.2	2
191.26 - 213.75 SSW	12.0 +- 0.0	2
213.76 - 236.25 SW	12.2 +- 0.8	2
236.26 - 258.75 WSW	No Data +- No Data	0
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	11.7 +- 0.8	7
2 - 5	11.4 +- 0.5	9
> 5	11.7 +- 0.0	1
Upwind Control	11.6 +- 0.3	3

NRC TLD DOSES FOR BIG ROCK POINT AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

BRAIDWOOD

TLD Direct Radiation Environmental Monitoring

For the period 961210-970417 129 Days

Field Time: 91 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	28	0.8	17.7 +- 0.5; 2.7	14.3 +- 0.6; 3.9	13.7 +- 3.1
2	29	1.3	17.8 +- 0.5; 2.7	14.3 +- 0.6; 3.9	14.7 +- 1.8
3	53	2.0	17.4 +- 0.5; 2.6	14.0 +- 0.6; 3.9	12.2 +- 2.9
4	72	2.1	17.6 +- 0.5; 2.6	14.2 +- 0.6; 3.9	14.9 +- 1.6
5	87	2.0	17.4 +- 0.5; 2.6	14.0 +- 0.6; 3.9	14.4 +- 2.1
6	119	2.5	16.7 +- 0.5; 2.5	13.3 +- 0.6; 3.8	13.6 +- 3.0
7	133	3.3	17.9 +- 0.5; 2.7	14.4 +- 0.6; 3.9	14.8 +- 1.6
8	151	3.3	17.2 +- 0.5; 2.6	13.7 +- 0.6; 3.8	14.0 +- 1.5
9	172	3.9	21.9 +- 0.7; 3.3	18.4 +- 0.7; 4.3	17.9 +- 3.8
10	197	2.8	18.0 +- 0.5; 2.7	14.5 +- 0.6; 3.9	14.8 +- 1.8
11	212	1.4	17.4 +- 0.5; 2.6	14.0 +- 0.6; 3.9	13.8 +- 2.0
12	232	1.0	16.6 +- 0.5; 2.5	13.2 +- 0.6; 3.8	13.4 +- 2.0
13	255	1.0	16.4 +- 0.5; 2.5	13.0 +- 0.6; 3.8	13.8 +- 1.4
14	278	1.2	15.9 +- 0.5; 2.4	12.5 +- 0.6; 3.7	14.3 +- 2.2
15	310	1.3	16.0 +- 0.5; 2.4	12.6 +- 0.6; 3.7	14.1 +- 2.2
16	342	1.3	17.4 +- 0.5; 2.6	13.9 +- 0.6; 3.9	12.1 +- 2.7
17	8	1.5	16.7 +- 0.5; 2.5	13.2 +- 0.6; 3.8	14.4 +- 1.8
18	18	3.5	18.9 +- 0.6; 2.8	15.4 +- 0.6; 4.0	17.3 +- 3.1
19	42	6.3	17.1 +- 0.5; 2.6	13.7 +- 0.6; 3.8	13.2 +- 2.2
20	69	5.7	18.0 +- 0.5; 2.7	14.5 +- 0.6; 3.9	15.6 +- 2.3
21	86	7.0	19.0 +- 0.6; 2.8	15.5 +- 0.6; 4.0	16.4 +- 2.2
22	103	11.4	19.6 +- 0.6; 2.9	16.1 +- 0.7; 4.1	15.6 +- 3.3
23	45	4.9	Missing Dosimeter	No Net Data	15.0 +- 2.1
24	70	4.2	17.7 +- 0.5; 2.7	14.3 +- 0.6; 3.9	14.4 +- 2.0
25	86	4.1	16.4 +- 0.5; 2.5	13.0 +- 0.6; 3.8	12.3 +- 2.6
26	125	5.0	17.2 +- 0.5; 2.6	13.7 +- 0.6; 3.8	12.9 +- 3.0
27	142	7.2	18.3 +- 0.5; 2.7	14.8 +- 0.6; 3.9	16.3 +- 3.0
28	161	6.1	16.1 +- 0.5; 2.4	12.7 +- 0.6; 3.7	14.4 +- 1.9
29	180	5.9	23.2 +- 0.7; 3.5	19.7 +- 0.8; 4.5	18.7 +- 2.9
30	187	5.8	21.2 +- 0.6; 3.2	17.7 +- 0.7; 4.3	19.6 +- 2.2
31	225	5.4	19.7 +- 0.6; 2.9	16.2 +- 0.7; 4.1	17.2 +- 1.8
32	253	4.0	17.1 +- 0.5; 2.6	13.7 +- 0.6; 3.8	14.8 +- 1.9
33	289	4.1	18.2 +- 0.5; 2.7	14.7 +- 0.6; 3.9	16.2 +- 2.5
34	315	4.0	19.0 +- 0.6; 2.8	15.5 +- 0.6; 4.0	15.9 +- 2.0
35	333	4.0	19.7 +- 0.6; 3.0	16.2 +- 0.7; 4.1	15.1 +- 2.6
36	0	5.5	15.6 +- 0.5; 2.3	12.2 +- 0.6; 3.7	14.5 +- 2.2
37	21	5.0	16.2 +- 0.5; 2.4	12.7 +- 0.6; 3.7	12.0 +- 3.0
38	224	14.7	16.9 +- 0.5; 2.5	13.5 +- 0.6; 3.8	13.9 +- 2.5
39	224	14.7	17.3 +- 0.5; 2.6	13.9 +- 0.6; 3.9	13.7 +- 2.0
40	187	10.3	20.4 +- 0.6; 3.1	16.9 +- 0.7; 4.2	18.0 +- 2.4

Transit Dose = 3.3 +- 0.3; 2.9

BRAIDWOOD

For the period 961210-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	12.7 +- 0.7	2
11.26 - 33.75 NNE	14.2 +- 1.1	4
33.76 - 56.25 NE	13.8 +- 0.2	2
56.26 - 78.75 ENE	14.3 +- 0.2	3
78.76 - 101.25 E	14.2 +- 1.3	3
101.26 - 123.75 ESE	14.7 +- 2.0	2
123.76 - 146.25 SE	14.3 +- 0.5	3
146.26 - 168.75 SSE	13.2 +- 0.7	2
168.76 - 191.25 S	18.6 +- 1.0	3
191.26 - 213.75 SSW	14.3 +- 0.4	2
213.76 - 236.25 SW	14.3 +- 1.6	3
236.26 - 258.75 WSW	13.3 +- 0.5	2
258.76 - 281.25 W	12.5 +- 0.0	1
281.26 - 303.75 WNW	14.7 +- 0.0	1
303.76 - 326.25 NW	14.0 +- 2.1	2
326.26 - 348.75 NNW	15.1 +- 1.6	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	13.5 +- 0.7	11
2 - 5	14.5 +- 1.4	15
> 5	15.1 +- 2.2	11
Upwind Control	15.4 +- 2.1	2

NRC TLD DOSES FOR BRAIDWOOD AREA

Miles

0 2 4

Legend

Water

Railroads

Plant..site

Highways

Roads

BROWNS FERRY

TLD Direct Radiation Environmental Monitoring

For the period 961210-970506 148 Days

Field Time: 91 Days

NRC Sta	Location		Gross			Net Exposure Rate			Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR)			(mR/Std. Qtr.)			Net Exp Rate	
			+-Rdm; Tot.			+-Rdm; Tot.			+-1 Std Dev	
1	133	8.8	20.6	+-	0.6; 3.1	15.1	+-	0.7; 4.3	14.3	+- 1.8
2	135	5.4	18.7	+-	0.6; 2.8	13.2	+-	0.7; 4.1	15.8	+- 1.9
3	153	4.3	21.1	+-	0.6; 3.2	15.6	+-	0.7; 4.4	16.7	+- 1.2
4	212	5.9	22.9	+-	0.7; 3.4	17.4	+-	0.8; 4.6	18.1	+- 2.3
5	222	6.2	20.1	+-	0.6; 3.0	14.6	+-	0.7; 4.3	15.3	+- 1.9
6	247	4.5	21.9	+-	0.7; 3.3	16.4	+-	0.8; 4.5	18.6	+- 2.1
7	269	4.7	20.7	+-	0.6; 3.1	15.2	+-	0.7; 4.3	16.4	+- 2.0
8	257	11.1	20.4	+-	0.6; 3.1	14.9	+-	0.7; 4.3	15.8	+- 1.9
9	296	7.0	21.7	+-	0.7; 3.3	16.2	+-	0.7; 4.4	16.4	+- 2.3
10	292	4.5	20.9	+-	0.6; 3.1	15.4	+-	0.7; 4.3	16.7	+- 2.0
11	270	1.9	21.4	+-	0.6; 3.2	15.9	+-	0.7; 4.4	17.0	+- 1.9
12	241	2.7	20.5	+-	0.6; 3.1	15.0	+-	0.7; 4.3	15.8	+- 2.1
13	220	1.7	21.3	+-	0.6; 3.2	15.8	+-	0.7; 4.4	18.9	+- 2.5
14	268	17.0	22.4	+-	0.7; 3.4	16.9	+-	0.8; 4.5	17.1	+- 2.1
15	205	4.0	22.5	+-	0.7; 3.4	17.0	+-	0.8; 4.5	17.3	+- 2.0
16	183	2.8	18.8	+-	0.6; 2.8	13.3	+-	0.7; 4.1	15.4	+- 2.3
17	51	9.5	22.3	+-	0.7; 3.3	16.8	+-	0.8; 4.5	17.7	+- 1.9
18	51	3.4	21.7	+-	0.7; 3.3	16.2	+-	0.7; 4.4	16.1	+- 1.7
19	61	3.0	21.5	+-	0.6; 3.2	16.0	+-	0.7; 4.4	16.5	+- 2.0
20	84	2.7	24.5	+-	0.7; 3.7	18.9	+-	0.8; 4.7	18.9	+- 2.0
21	114	2.9	22.7	+-	0.7; 3.4	17.2	+-	0.8; 4.5	19.5	+- 1.9
22	58	0.9	24.5	+-	0.7; 3.7	18.9	+-	0.8; 4.7	20.2	+- 2.0
23	90	25.0	20.5	+-	0.6; 3.1	15.0	+-	0.7; 4.3	16.4	+- 2.2
24	110	0.6	23.7	+-	0.7; 3.6	18.2	+-	0.8; 4.7	18.1	+- 1.8
25	42	2.1	23.1	+-	0.7; 3.5	17.6	+-	0.8; 4.6	18.0	+- 2.2
26	23	1.7	25.4	+-	0.8; 3.8	19.9	+-	0.8; 4.9	20.1	+- 2.1
27	330	1.9	20.4	+-	0.6; 3.1	14.9	+-	0.7; 4.3	16.5	+- 1.9
28	330	1.0	23.6	+-	0.7; 3.5	18.1	+-	0.8; 4.6	18.5	+- 2.3
29	26	3.7	23.3	+-	0.7; 3.5	17.7	+-	0.8; 4.6	17.8	+- 2.1
30	358	4.0	20.1	+-	0.6; 3.0	14.6	+-	0.7; 4.3	15.5	+- 2.0
31	334	5.6	24.7	+-	0.7; 3.7	19.2	+-	0.8; 4.8	18.6	+- 2.0
32	312	12.0	23.4	+-	0.7; 3.5	17.8	+-	0.8; 4.6	18.0	+- 2.1
33	356	1.5	25.2	+-	0.8; 3.8	19.7	+-	0.8; 4.8	19.6	+- 2.0
34	52	6.5	20.6	+-	0.6; 3.1	15.2	+-	0.7; 4.3	16.5	+- 2.3
35	96	5.2	22.4	+-	0.7; 3.4	16.9	+-	0.8; 4.5	17.3	+- 2.0
36	68	5.5	22.9	+-	0.7; 3.4	17.4	+-	0.8; 4.6	18.2	+- 2.2
37	150	9.5	22.7	+-	0.7; 3.4	17.2	+-	0.8; 4.5	16.9	+- 2.0
38	166	7.0	19.0	+-	0.6; 2.9	13.5	+-	0.7; 4.2	14.2	+- 2.0

Transit Dose = 5.3 +- 0.4; 3.1

BROWNS FERRY
For the period 961210-970506

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.2 +- 3.6	2
11.26 - 33.75 NNE	18.8 +- 1.5	2
33.76 - 56.25 NE	16.4 +- 1.0	4
56.26 - 78.75 ENE	17.4 +- 1.5	3
78.76 - 101.25 E	16.9 +- 2.0	3
101.26 - 123.75 ESE	17.7 +- 0.7	2
123.76 - 146.25 SE	14.2 +- 1.4	2
146.26 - 168.75 SSE	15.4 +- 1.8	3
168.76 - 191.25 S	13.3 +- 0.0	1
191.26 - 213.75 SSW	17.2 +- 0.3	2
213.76 - 236.25 SW	15.2 +- 0.9	2
236.26 - 258.75 WSW	15.7 +- 1.0	2
258.76 - 281.25 W	15.6 +- 0.5	2
281.26 - 303.75 WNW	15.8 +- 0.6	2
303.76 - 326.25 NW	17.8 +- 0.0	1
326.26 - 348.75 NNW	17.4 +- 2.2	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.7 +- 1.9	8
2 - 5	16.2 +- 1.5	14
> 5	16.1 +- 1.7	14
Upwind Control	15.9 +- 1.4	2

NRC TLD DOSES FOR BROWNS FERRY AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

BRUNSWICK

TLD Direct Radiation Environmental Monitoring

For the period 961210-970415 127 Days

Field Time: 88 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev
1	260	2.2	13.3	+- 0.4; 2.0	9.5	+- 0.5; 3.6	10.1 +- 1.6
2	245	3.4	12.0	+- 0.4; 1.8	8.2	+- 0.5; 3.5	9.8 +- 1.6
3	231	3.8	11.6	+- 0.3; 1.7	7.8	+- 0.5; 3.4	9.4 +- 1.8
4	210	4.9	13.3	+- 0.4; 2.0	9.6	+- 0.5; 3.6	12.2 +- 1.7
5	186	4.3	14.4	+- 0.4; 2.2	10.7	+- 0.6; 3.7	12.1 +- 1.8
6	270	4.5	12.9	+- 0.4; 1.9	9.2	+- 0.5; 3.5	10.2 +- 1.3
7	272	4.4	12.0	+- 0.4; 1.8	8.3	+- 0.5; 3.5	10.7 +- 1.7
8	73	1.3	14.0	+- 0.4; 2.1	10.3	+- 0.6; 3.6	11.8 +- 1.7
9	97	1.0	13.1	+- 0.4; 2.0	9.3	+- 0.5; 3.6	11.8 +- 1.8
10	120	1.5	14.0	+- 0.4; 2.1	10.3	+- 0.5; 3.6	12.3 +- 1.4
11	131	0.9	13.1	+- 0.4; 2.0	9.3	+- 0.5; 3.6	11.5 +- 1.7
12	156	1.1	Damaged Dosimeter		No Net Data		12.1 +- 1.6
13	180	1.1	14.0	+- 0.4; 2.1	10.2	+- 0.5; 3.6	11.3 +- 1.5
14	194	2.4	13.8	+- 0.4; 2.1	10.0	+- 0.5; 3.6	11.1 +- 1.8
15	201	2.0	12.8	+- 0.4; 1.9	9.0	+- 0.5; 3.5	10.5 +- 1.5
16	218	1.2	12.2	+- 0.4; 1.8	8.4	+- 0.5; 3.5	11.3 +- 2.3
17	252	1.1	13.6	+- 0.4; 2.0	9.8	+- 0.5; 3.6	11.6 +- 1.6
18	272	1.2	12.7	+- 0.4; 1.9	9.0	+- 0.5; 3.5	11.1 +- 2.0
19	19	1.1	12.4	+- 0.4; 1.9	8.6	+- 0.5; 3.5	10.6 +- 1.5
20	2	1.1	12.6	+- 0.4; 1.9	8.9	+- 0.5; 3.5	10.3 +- 1.7
21	288	1.3	11.4	+- 0.3; 1.7	7.6	+- 0.5; 3.4	10.0 +- 1.9
22	307	1.5	12.6	+- 0.4; 1.9	8.9	+- 0.5; 3.5	10.5 +- 1.4
23	338	2.1	12.8	+- 0.4; 1.9	9.1	+- 0.5; 3.5	11.2 +- 1.5
24	325	4.9	12.3	+- 0.4; 1.9	8.6	+- 0.5; 3.5	10.2 +- 1.5
25	338	3.8	13.4	+- 0.4; 2.0	9.6	+- 0.5; 3.6	11.3 +- 1.5
26	356	5.2	12.1	+- 0.4; 1.8	8.4	+- 0.5; 3.5	10.5 +- 1.6
27	30	6.4	Missing Dosimeter		No Net Data		10.5 +- 1.5
28	43	9.0	13.5	+- 0.4; 2.0	9.8	+- 0.5; 3.6	11.6 +- 2.2
29	50	8.5	13.8	+- 0.4; 2.1	10.1	+- 0.5; 3.6	11.0 +- 1.9
30	59	7.2	13.5	+- 0.4; 2.0	9.8	+- 0.5; 3.6	11.2 +- 1.8
31	65	6.5	13.2	+- 0.4; 2.0	9.5	+- 0.5; 3.6	11.2 +- 1.6
32	74	5.8	14.7	+- 0.4; 2.2	11.0	+- 0.6; 3.7	11.7 +- 2.1
33	88	4.1	12.6	+- 0.4; 1.9	8.8	+- 0.5; 3.5	10.5 +- 1.9
34	12	17.0	14.4	+- 0.4; 2.2	10.6	+- 0.6; 3.7	11.7 +- 1.6
35	16	18.0	13.3	+- 0.4; 2.0	9.6	+- 0.5; 3.6	10.5 +- 1.6
36	284	15.0	13.6	+- 0.4; 2.0	9.8	+- 0.5; 3.6	11.6 +- 2.2
37	284	16.0	13.1	+- 0.4; 2.0	9.4	+- 0.5; 3.6	11.9 +- 2.5
38	284	15.0	13.0	+- 0.4; 2.0	9.3	+- 0.5; 3.6	11.4 +- 1.8
39	287	4.6	13.2	+- 0.4; 2.0	9.5	+- 0.5; 3.6	10.8 +- 1.4
40	271	0.7	14.3	+- 0.4; 2.1	10.6	+- 0.6; 3.7	12.8 +- 1.6

Transit Dose = 3.9 +- 0.3; 2.9

BRUNSWICK

For the period 961210-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	8.6 +- 0.4	2
11.26 - 33.75 NNE	9.6 +- 1.0	3
33.76 - 56.25 NE	9.9 +- 0.2	2
56.26 - 78.75 ENE	10.1 +- 0.7	4
78.76 - 101.25 E	9.1 +- 0.4	2
101.26 - 123.75 ESE	10.3 +- 0.0	1
123.76 - 146.25 SE	9.3 +- 0.0	1
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	10.5 +- 0.3	2
191.26 - 213.75 SSW	9.5 +- 0.5	3
213.76 - 236.25 SW	8.1 +- 0.4	2
236.26 - 258.75 WSW	9.0 +- 1.2	2
258.76 - 281.25 W	9.3 +- 0.9	5
281.26 - 303.75 WNW	8.5 +- 1.3	2
303.76 - 326.25 NW	8.7 +- 0.2	2
326.26 - 348.75 NNW	9.4 +- 0.4	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	9.3 +- 0.9	14
2 - 5	9.1 +- 0.8	13
> 5	9.8 +- 0.8	8
Upwind Control	9.5 +- 0.3	3

NRC TLD DOSES FOR BRUNSWICK AREA

Miles

0 2 4

Legend

Water

Highways

--- Railroads

--- Roads

Plant..site

BYRON

TLD Direct Radiation Environmental Monitoring

For the period 961210-970416 128 Days

Field Time: 85 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	10	1.1	19.8 +- 0.6; 3.0		16.7 +- 0.7; 4.3		19.1 +- 1.9	
2	27	1.0	19.4 +- 0.6; 2.9		16.3 +- 0.7; 4.3		18.7 +- 1.7	
3	53	1.6	19.2 +- 0.6; 2.9		16.1 +- 0.7; 4.3		17.5 +- 1.6	
4	68	1.6	19.6 +- 0.6; 2.9		16.5 +- 0.7; 4.3		20.2 +- 2.1	
5	97	1.4	20.0 +- 0.6; 3.0		16.9 +- 0.7; 4.3		21.0 +- 1.9	
6	120	1.3	19.8 +- 0.6; 3.0		16.7 +- 0.7; 4.3		19.2 +- 1.6	
7	146	1.4	20.7 +- 0.6; 3.1		17.6 +- 0.7; 4.4		20.1 +- 2.3	
8	175	2.2	18.7 +- 0.6; 2.8		15.5 +- 0.7; 4.2		18.7 +- 1.4	
9	177	0.6	17.8 +- 0.5; 2.7		14.6 +- 0.7; 4.1		16.3 +- 1.5	
10	183	0.5	18.0 +- 0.5; 2.7		14.7 +- 0.7; 4.1		18.8 +- 2.1	
11	193	0.6	17.5 +- 0.5; 2.6		14.2 +- 0.7; 4.1		17.9 +- 2.0	
12	220	0.9	19.1 +- 0.6; 2.9		15.9 +- 0.7; 4.2		18.5 +- 1.4	
13	239	0.8	18.7 +- 0.6; 2.8		15.5 +- 0.7; 4.2		17.7 +- 1.4	
14	262	0.7	18.9 +- 0.6; 2.8		15.8 +- 0.7; 4.2		19.4 +- 1.8	
15	283	0.8	17.5 +- 0.5; 2.6		14.3 +- 0.7; 4.1		18.4 +- 1.9	
16	303	1.0	18.1 +- 0.5; 2.7		14.9 +- 0.7; 4.1		17.0 +- 1.5	
17	326	1.6	17.1 +- 0.5; 2.6		13.8 +- 0.6; 4.0		16.5 +- 1.7	
18	23	4.0	17.1 +- 0.5; 2.6		13.9 +- 0.6; 4.0		15.7 +- 1.3	
19	17	4.1	16.2 +- 0.5; 2.4		12.8 +- 0.6; 3.9		14.6 +- 1.4	
20	5	4.3	19.4 +- 0.6; 2.9		16.3 +- 0.7; 4.3		17.3 +- 1.3	
21	340	4.2	18.7 +- 0.6; 2.8		15.6 +- 0.7; 4.2		18.4 +- 2.0	
22	322	4.9	18.0 +- 0.5; 2.7		14.8 +- 0.7; 4.1		19.0 +- 2.4	
23	298	6.9	17.8 +- 0.5; 2.7		14.5 +- 0.7; 4.1		16.0 +- 1.2	
24	262	4.8	16.2 +- 0.5; 2.4		12.9 +- 0.6; 3.9		15.8 +- 1.3	
25	244	4.6	16.9 +- 0.5; 2.5		13.6 +- 0.6; 4.0		16.1 +- 1.3	
26	224	4.8	16.1 +- 0.5; 2.4		12.7 +- 0.6; 3.9		16.3 +- 1.6	
27	208	5.2	16.7 +- 0.5; 2.5		13.4 +- 0.6; 4.0		14.9 +- 1.2	
28	209	14.0	15.6 +- 0.5; 2.3		12.3 +- 0.6; 3.9		14.5 +- 1.1	
29	215	13.0	18.4 +- 0.6; 2.8		15.2 +- 0.7; 4.2		17.5 +- 1.4	
30	215	13.0	19.3 +- 0.6; 2.9		16.1 +- 0.7; 4.3		18.4 +- 1.6	
31	204	4.6	16.1 +- 0.5; 2.4		12.7 +- 0.6; 3.9		13.7 +- 1.3	
32	178	4.4	17.4 +- 0.5; 2.6		14.1 +- 0.7; 4.0		16.0 +- 1.2	
33	155	3.9	18.6 +- 0.6; 2.8		15.4 +- 0.7; 4.2		17.7 +- 1.5	
34	138	4.6	18.2 +- 0.5; 2.7		14.9 +- 0.7; 4.1		17.9 +- 1.5	
35	118	4.4	19.1 +- 0.6; 2.9		16.0 +- 0.7; 4.2		18.6 +- 1.9	
36	81	3.8	17.6 +- 0.5; 2.6		14.4 +- 0.7; 4.1		17.1 +- 1.7	
37	70	5.5	17.0 +- 0.5; 2.6		13.7 +- 0.6; 4.0		16.6 +- 2.0	
38	45	4.0	16.4 +- 0.5; 2.5		13.1 +- 0.6; 3.9		15.2 +- 1.4	
39	40	6.8	19.1 +- 0.6; 2.9		15.9 +- 0.7; 4.2		18.3 +- 1.2	
40	45	15.0	15.5 +- 0.5; 2.3		12.1 +- 0.6; 3.8		14.5 +- 1.2	
41	220	3.0	18.7 +- 0.6; 2.8		15.5 +- 0.7; 4.2		19.7 +- 2.0	

Transit Dose = 4.1 +- 0.3; 2.8

BYRON

For the period 961210-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.5 +- 0.3	2
11.26 - 33.75 NNE	14.3 +- 1.8	3
33.76 - 56.25 NE	14.3 +- 2.0	4
56.26 - 78.75 ENE	15.1 +- 2.0	2
78.76 - 101.25 E	15.6 +- 1.8	2
101.26 - 123.75 ESE	16.3 +- 0.5	2
123.76 - 146.25 SE	16.3 +- 1.9	2
146.26 - 168.75 SSE	15.4 +- 0.0	1
168.76 - 191.25 S	14.7 +- 0.6	4
191.26 - 213.75 SSW	13.4 +- 0.7	3
213.76 - 236.25 SW	14.7 +- 1.7	3
236.26 - 258.75 WSW	14.5 +- 1.3	2
258.76 - 281.25 W	14.3 +- 2.0	2
281.26 - 303.75 WNW	14.6 +- 0.3	3
303.76 - 326.25 NW	14.3 +- 0.7	2
326.26 - 348.75 NNW	15.6 +- 0.0	1

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.6 +- 1.1	16
2 - 5	14.4 +- 1.2	17
> 5	13.9 +- 1.4	5
Upwind Control	14.5 +- 2.0	3

NRC TLD DOSES FOR BYRON AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

CALLAWAY

TLD Direct Radiation Environmental Monitoring

For the period 961210-970414 126 Days

Field Time: 72 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	247	2.1	20.1 +- 0.6; 3.0	18.5 +- 0.9; 4.9	21.0 +- 2.5
2	259	1.4	18.6 +- 0.6; 2.8	16.7 +- 0.8; 4.7	19.7 +- 1.7
3	282	1.3	19.4 +- 0.6; 2.9	17.7 +- 0.8; 4.8	19.5 +- 1.6
4	304	1.3	18.9 +- 0.6; 2.8	17.1 +- 0.8; 4.8	20.4 +- 2.4
5	330	1.7	19.2 +- 0.6; 2.9	17.4 +- 0.8; 4.8	18.0 +- 1.9
6	1	1.7	18.6 +- 0.6; 2.8	16.8 +- 0.8; 4.7	17.1 +- 0.8
7	23	2.0	18.1 +- 0.5; 2.7	16.0 +- 0.8; 4.6	17.0 +- 0.9
8	77	0.7	19.3 +- 0.6; 2.9	17.6 +- 0.8; 4.8	17.8 +- 0.7
9	85	1.4	19.4 +- 0.6; 2.9	17.7 +- 0.8; 4.8	18.7 +- 1.0
10	98	1.5	19.4 +- 0.6; 2.9	17.7 +- 0.8; 4.8	17.3 +- 1.0
11	121	2.0	18.6 +- 0.6; 2.8	16.8 +- 0.8; 4.7	18.7 +- 2.6
12	140	2.0	18.1 +- 0.5; 2.7	16.1 +- 0.8; 4.6	18.5 +- 1.7
13	158	2.5	18.4 +- 0.6; 2.8	16.5 +- 0.8; 4.7	17.7 +- 1.0
14	183	3.7	18.8 +- 0.6; 2.8	16.9 +- 0.8; 4.7	18.5 +- 2.0
15	188	1.7	19.7 +- 0.6; 3.0	18.1 +- 0.8; 4.9	18.6 +- 1.1
16	202	0.7	19.5 +- 0.6; 2.9	17.8 +- 0.8; 4.8	17.4 +- 1.1
17	237	0.7	19.0 +- 0.6; 2.9	17.2 +- 0.8; 4.8	19.3 +- 1.5
18	312	11.0	Missing Dosimeter	No Net Data	17.9 +- 1.8
19	292	10.0	19.2 +- 0.6; 2.9	17.5 +- 0.8; 4.8	17.6 +- 1.0
20	268	9.0	18.2 +- 0.5; 2.7	16.2 +- 0.8; 4.7	17.9 +- 1.0
21	247	8.0	19.5 +- 0.6; 2.9	17.8 +- 0.8; 4.8	20.2 +- 2.0
22	225	8.0	Damaged Dosimeter	No Net Data	17.7 +- 0.9
23	220	8.0	19.9 +- 0.6; 3.0	18.3 +- 0.9; 4.9	19.0 +- 2.0
24	205	5.5	18.7 +- 0.6; 2.8	16.9 +- 0.8; 4.7	16.3 +- 2.1
25	157	4.0	Missing Dosimeter	No Net Data	20.5 +- 2.2
26	134	5.0	18.4 +- 0.6; 2.8	16.4 +- 0.8; 4.7	16.1 +- 1.1
27	115	4.2	20.1 +- 0.6; 3.0	18.6 +- 0.9; 4.9	21.0 +- 2.1
28	95	3.5	19.1 +- 0.6; 2.9	17.4 +- 0.8; 4.8	20.8 +- 1.9
29	67	3.4	19.6 +- 0.6; 2.9	18.0 +- 0.8; 4.9	19.5 +- 1.0
30	48	4.5	19.2 +- 0.6; 2.9	17.5 +- 0.8; 4.8	16.7 +- 0.8
31	14	6.5	19.3 +- 0.6; 2.9	17.6 +- 0.8; 4.8	18.8 +- 0.9
32	2	5.1	20.0 +- 0.6; 3.0	18.4 +- 0.9; 4.9	18.7 +- 1.0
33	335	3.6	18.3 +- 0.5; 2.7	16.3 +- 0.8; 4.7	16.2 +- 1.1
34	288	4.3	19.4 +- 0.6; 2.9	17.8 +- 0.8; 4.8	18.8 +- 0.9
35	310	5.2	20.5 +- 0.6; 3.1	19.1 +- 0.9; 5.0	18.9 +- 0.9
36	264	3.2	15.9 +- 0.5; 2.4	13.4 +- 0.7; 4.4	14.3 +- 1.3
37	237	3.0	21.2 +- 0.6; 3.2	20.0 +- 0.9; 5.1	20.0 +- 1.5
38	270	15.0	17.8 +- 0.5; 2.7	15.7 +- 0.8; 4.6	16.9 +- 1.8
39	270	15.0	17.5 +- 0.5; 2.6	15.3 +- 0.8; 4.6	17.3 +- 2.7
40	203	20.0	20.1 +- 0.6; 3.0	18.6 +- 0.9; 4.9	18.5 +- 0.8

Transit Dose = 5.2 +- 0.3; 2.5

CALLAWAY

For the period 961210-970414

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.6 +- 1.2	2
11.26 - 33.75 NNE	16.8 +- 1.1	2
33.76 - 56.25 NE	17.5 +- 0.0	1
56.26 - 78.75 ENE	17.8 +- 0.3	2
78.76 - 101.25 E	17.6 +- 0.2	3
101.26 - 123.75 ESE	17.7 +- 1.3	2
123.76 - 146.25 SE	16.2 +- 0.2	2
146.26 - 168.75 SSE	16.5 +- 0.0	1
168.76 - 191.25 S	17.5 +- 0.8	2
191.26 - 213.75 SSW	17.3 +- 0.6	2
213.76 - 236.25 SW	18.3 +- 0.0	1
236.26 - 258.75 WSW	18.4 +- 1.2	4
258.76 - 281.25 W	15.4 +- 1.8	3
281.26 - 303.75 WNW	17.6 +- 0.1	3
303.76 - 326.25 NW	18.1 +- 1.4	2
326.26 - 348.75 NNW	16.8 +- 0.8	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.2 +- 0.6	14
2 - 5	17.3 +- 1.6	12
> 5	17.7 +- 0.9	8
Upwind Control	16.5 +- 1.8	3

NRC TLD DOSES FOR CALLAWAY AREA

Miles

0 2 4

Legend

Water
Highways

Railroads
Roads

Plant..site

CALVERT CLIFFS

TLD Direct Radiation Environmental Monitoring

For the period 961212-970414 124 Days

Field Time: 71 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	275 1.5	14.2 +- 0.4; 2.1	14.1 +- 0.6; 4.0	13.7 +- 2.0
3	284 1.7	14.2 +- 0.4; 2.1	14.1 +- 0.6; 4.0	13.6 +- 1.9
4	323 2.4	Damaged Dosimeter	No Net Data	13.5 +- 1.2
5	297 3.1	14.3 +- 0.4; 2.1	14.2 +- 0.6; 4.0	14.2 +- 1.8
6	324 4.7	13.9 +- 0.4; 2.1	13.7 +- 0.6; 3.9	14.3 +- 2.0
7	324 5.5	15.1 +- 0.5; 2.3	15.2 +- 0.7; 4.1	13.0 +- 1.5
8	256 6.1	13.1 +- 0.4; 2.0	12.7 +- 0.6; 3.8	12.5 +- 2.0
9	273 4.1	14.7 +- 0.4; 2.2	14.7 +- 0.7; 4.1	13.1 +- 1.4
10	253 3.7	14.8 +- 0.4; 2.2	14.9 +- 0.7; 4.1	14.8 +- 1.7
11	230 4.0	16.1 +- 0.5; 2.4	16.6 +- 0.7; 4.2	14.7 +- 1.2
12	243 1.3	15.7 +- 0.5; 2.4	16.0 +- 0.7; 4.2	14.3 +- 1.2
13	222 1.5	14.5 +- 0.4; 2.2	14.5 +- 0.6; 4.0	15.4 +- 1.9
14	208 1.8	13.8 +- 0.4; 2.1	13.6 +- 0.6; 3.9	12.2 +- 1.3
15	176 2.4	16.5 +- 0.5; 2.5	17.0 +- 0.7; 4.3	17.0 +- 1.9
16	160 1.5	17.3 +- 0.5; 2.6	18.1 +- 0.7; 4.4	16.0 +- 1.4
19	159 3.8	16.1 +- 0.5; 2.4	16.5 +- 0.7; 4.2	14.2 +- 1.3
20	139 4.7	13.4 +- 0.4; 2.0	13.1 +- 0.6; 3.9	12.9 +- 1.9
21	201 4.0	14.7 +- 0.4; 2.2	14.7 +- 0.7; 4.0	13.7 +- 1.3
22	187 4.7	14.9 +- 0.4; 2.2	15.0 +- 0.7; 4.1	13.1 +- 0.9
23	201 8.7	16.4 +- 0.5; 2.5	16.9 +- 0.7; 4.3	14.2 +- 1.3
24	190 7.8	14.7 +- 0.4; 2.2	14.7 +- 0.7; 4.0	12.3 +- 1.0
25	325 6.7	15.1 +- 0.5; 2.3	15.3 +- 0.7; 4.1	13.5 +- 1.2
26	314 11.0	14.8 +- 0.4; 2.2	14.8 +- 0.7; 4.1	12.9 +- 1.2
27	314 11.0	Missing Dosimeter	No Net Data	12.9 +- 1.1
28	315 10.0	15.0 +- 0.4; 2.2	15.1 +- 0.7; 4.1	15.2 +- 1.7
29	186 12.0	17.2 +- 0.5; 2.6	17.9 +- 0.7; 4.4	15.7 +- 1.3

Transit Dose = 3.1 +- 0.3; 2.3

CALVERT CLIFFS
For the period 961212-970414

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	No Data +- No Data	0
123.76 - 146.25 SE	13.1 +- 0.0	1
146.26 - 168.75 SSE	17.3 +- 1.1	2
168.76 - 191.25 S	16.2 +- 1.6	4
191.26 - 213.75 SSW	15.1 +- 1.7	3
213.76 - 236.25 SW	15.5 +- 1.5	2
236.26 - 258.75 WSW	14.5 +- 1.7	3
258.76 - 281.25 W	14.4 +- 0.5	2
281.26 - 303.75 WNW	14.1 +- 0.1	2
303.76 - 326.25 NW	14.7 +- 0.9	3
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.1 +- 1.7	6
2 - 5	15.0 +- 1.3	10
> 5	15.4 +- 1.8	6
Upwind Control	14.9 +- 0.2	2

NRC TLD DOSES FOR CALVERT CLIFFS AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

CATAWBA

TLD Direct Radiation Environmental Monitoring

For the period 961211-970416 127 Days

Field Time: 79 Days

NRC Sta	Location		Gross Exposure (mR)			Net Exposure Rate (mR/Std. Qtr.)			Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		+-Rdm; Tot.			+-Rdm; Tot.			Net Exp Rate +-1 Std Dev	
1	134	0.1	25.9	+-	0.8; 3.9	20.6	+-	1.0; 5.6	19.3	+- 1.8
2	162	0.4	24.2	+-	0.7; 3.6	18.6	+-	1.0; 5.4	15.9	+- 2.1
3	132	0.8	26.3	+-	0.8; 3.9	21.0	+-	1.0; 5.6	18.6	+- 1.8
4	111	1.3	25.5	+-	0.8; 3.8	20.1	+-	1.0; 5.5	16.0	+- 1.5
5	45	0.7	23.0	+-	0.7; 3.4	17.2	+-	0.9; 5.2	15.8	+- 1.8
6	298	1.3	24.5	+-	0.7; 3.7	18.9	+-	1.0; 5.4	17.7	+- 1.9
7	4	0.6	22.8	+-	0.7; 3.4	17.1	+-	0.9; 5.2	15.3	+- 2.0
8	332	1.5	25.6	+-	0.8; 3.8	20.2	+-	1.0; 5.6	19.0	+- 2.1
9	318	1.6	20.9	+-	0.6; 3.1	14.8	+-	0.9; 4.9	12.5	+- 2.2
10	176	1.8	23.4	+-	0.7; 3.5	17.7	+-	0.9; 5.3	16.5	+- 2.4
11	203	1.5	22.5	+-	0.7; 3.4	16.7	+-	0.9; 5.1	16.7	+- 1.9
12	225	1.5	22.9	+-	0.7; 3.4	17.2	+-	0.9; 5.2	16.8	+- 2.6
13	250	1.9	22.7	+-	0.7; 3.4	16.9	+-	0.9; 5.2	14.5	+- 2.3
14	270	1.4	19.7	+-	0.6; 3.0	13.5	+-	0.8; 4.8	12.5	+- 2.0
15	331	3.0	22.4	+-	0.7; 3.4	16.6	+-	0.9; 5.1	14.2	+- 1.9
16	311	3.9	21.0	+-	0.6; 3.1	14.9	+-	0.9; 5.0	13.4	+- 2.1
17	296	9.5	25.3	+-	0.8; 3.8	19.9	+-	1.0; 5.5	18.0	+- 2.1
18	324	4.8	22.9	+-	0.7; 3.4	17.2	+-	0.9; 5.2	15.1	+- 2.6
19	352	4.8	21.1	+-	0.6; 3.2	15.1	+-	0.9; 5.0	13.2	+- 2.0
20	22	4.0	24.0	+-	0.7; 3.6	18.4	+-	1.0; 5.3	16.8	+- 2.0
21	290	3.9	22.2	+-	0.7; 3.3	16.3	+-	0.9; 5.1	15.1	+- 1.6
22	266	4.0	22.9	+-	0.7; 3.4	17.1	+-	0.9; 5.2	16.1	+- 2.1
23	251	4.0	19.7	+-	0.6; 3.0	13.5	+-	0.8; 4.8	11.6	+- 2.1
24	229	3.9	20.2	+-	0.6; 3.0	14.1	+-	0.8; 4.9	12.4	+- 2.0
25	202	4.4	22.7	+-	0.7; 3.4	16.9	+-	0.9; 5.2	17.2	+- 1.5
26	51	4.3	25.6	+-	0.8; 3.8	20.2	+-	1.0; 5.6	18.2	+- 1.4
27	64	7.9	20.5	+-	0.6; 3.1	14.4	+-	0.9; 4.9	12.1	+- 1.7
28	61	4.9	23.4	+-	0.7; 3.5	17.7	+-	0.9; 5.3	15.5	+- 1.9
29	49	1.9	21.4	+-	0.6; 3.2	15.5	+-	0.9; 5.0	14.8	+- 2.7
30	64	1.8	22.3	+-	0.7; 3.3	16.4	+-	0.9; 5.1	14.9	+- 1.6
31	87	1.6	22.5	+-	0.7; 3.4	16.7	+-	0.9; 5.2	14.5	+- 1.8
32	121	2.6	22.2	+-	0.7; 3.3	16.4	+-	0.9; 5.1	15.5	+- 1.7
33	114	7.6	21.9	+-	0.7; 3.3	16.0	+-	0.9; 5.1	14.1	+- 2.4
34	93	4.5	24.9	+-	0.7; 3.7	19.4	+-	1.0; 5.5	17.3	+- 2.3
35	132	4.3	24.9	+-	0.7; 3.7	19.4	+-	1.0; 5.5	20.7	+- 1.5
36	163	8.9	20.7	+-	0.6; 3.1	14.6	+-	0.9; 4.9	12.6	+- 1.7
37	173	4.9	21.4	+-	0.6; 3.2	15.4	+-	0.9; 5.0	13.9	+- 1.2
38	157	4.6	24.1	+-	0.7; 3.6	18.6	+-	1.0; 5.4	18.3	+- 0.9
39	248	10.0	27.2	+-	0.8; 4.1	22.1	+-	1.1; 5.8	16.0	+- 2.5
40	229	12.0	22.0	+-	0.7; 3.3	16.2	+-	0.9; 5.1	15.3	+- 1.2
41	218	13.0	21.1	+-	0.6; 3.2	15.1	+-	0.9; 5.0	12.6	+- 2.8
42	213	16.0	22.2	+-	0.7; 3.3	16.3	+-	0.9; 5.1	15.4	+- 1.3

Transit Dose = 7.9 +- 0.4; 3.0

CATAWBA

For the period 961211-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.1 +- 1.4	2
11.26 - 33.75 NNE	18.4 +- 0.0	1
33.76 - 56.25 NE	17.6 +- 2.4	3
56.26 - 78.75 ENE	16.2 +- 1.6	3
78.76 - 101.25 E	18.1 +- 1.9	2
101.26 - 123.75 ESE	17.5 +- 2.3	3
123.76 - 146.25 SE	20.3 +- 0.8	3
146.26 - 168.75 SSE	17.3 +- 2.3	3
168.76 - 191.25 S	16.5 +- 1.6	2
191.26 - 213.75 SSW	16.8 +- 0.1	2
213.76 - 236.25 SW	15.6 +- 2.2	2
236.26 - 258.75 WSW	17.5 +- 4.3	3
258.76 - 281.25 W	15.3 +- 2.6	2
281.26 - 303.75 WNW	18.4 +- 1.8	3
303.76 - 326.25 NW	15.6 +- 1.3	3
326.26 - 348.75 NNW	18.4 +- 2.6	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.6 +- 2.1	17
2 - 5	16.9 +- 1.9	17
> 5	17.4 +- 3.4	5
Upwind Control	15.9 +- 0.6	3

NRC TLD DOSES FOR CATAWBA AREA

Miles

Legend

Water

--- Railroads

Plant..site

Highways

--- Roads

CLINTON

TLD Direct Radiation Environmental Monitoring

For the period 961210-970416 128 Days

Field Time: 81 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	5	0.6	20.2	+- 0.6; 3.0	16.5	+- 0.8; 4.6	19.0	+- 2.3
2	40	0.7	20.7	+- 0.6; 3.1	17.1	+- 0.8; 4.6	18.8	+- 1.2
3	35	0.8	21.9	+- 0.7; 3.3	18.4	+- 0.8; 4.8	21.5	+- 1.7
4	163	0.5	19.9	+- 0.6; 3.0	16.2	+- 0.8; 4.5	19.1	+- 1.5
5	210	0.5	21.6	+- 0.6; 3.2	18.1	+- 0.8; 4.8	19.4	+- 1.5
6	223	0.6	20.8	+- 0.6; 3.1	17.2	+- 0.8; 4.7	19.4	+- 1.4
7	235	0.8	20.3	+- 0.6; 3.1	16.7	+- 0.8; 4.6	19.0	+- 1.3
8	62	1.9	20.2	+- 0.6; 3.0	16.6	+- 0.8; 4.6	18.5	+- 1.4
9	78	1.8	20.1	+- 0.6; 3.0	16.4	+- 0.8; 4.6	18.3	+- 1.3
10	79	2.6	18.6	+- 0.6; 2.8	14.8	+- 0.7; 4.4	18.6	+- 1.8
11	100	2.3	20.5	+- 0.6; 3.1	16.9	+- 0.8; 4.6	18.7	+- 1.3
12	115	3.0	17.4	+- 0.5; 2.6	13.4	+- 0.7; 4.3	17.0	+- 2.1
13	127	3.2	20.2	+- 0.6; 3.0	16.5	+- 0.8; 4.6	18.7	+- 1.4
14	155	2.1	21.1	+- 0.6; 3.2	17.6	+- 0.8; 4.7	19.0	+- 1.3
15	185	3.0	Damaged Dosimeter		No Net Data		18.6	+- 1.9
16	203	3.2	18.5	+- 0.6; 2.8	14.7	+- 0.7; 4.4	17.8	+- 1.3
17	230	3.7	21.3	+- 0.6; 3.2	17.8	+- 0.8; 4.7	18.5	+- 1.6
18	255	2.8	21.1	+- 0.6; 3.2	17.5	+- 0.8; 4.7	19.2	+- 1.3
19	275	2.3	20.4	+- 0.6; 3.1	16.7	+- 0.8; 4.6	18.6	+- 1.2
20	302	0.9	19.4	+- 0.6; 2.9	15.7	+- 0.8; 4.5	18.3	+- 1.3
21	336	0.8	20.1	+- 0.6; 3.0	16.5	+- 0.8; 4.6	18.0	+- 1.3
22	0	0.6	19.3	+- 0.6; 2.9	15.6	+- 0.8; 4.5	18.5	+- 1.3
23	358	4.6	20.1	+- 0.6; 3.0	16.4	+- 0.8; 4.6	19.3	+- 1.4
24	20	3.9	20.3	+- 0.6; 3.0	16.7	+- 0.8; 4.6	18.4	+- 1.3
25	46	5.0	20.8	+- 0.6; 3.1	17.2	+- 0.8; 4.7	19.1	+- 1.1
26	62	5.5	19.3	+- 0.6; 2.9	15.6	+- 0.8; 4.5	17.0	+- 1.2
27	90	4.8	19.4	+- 0.6; 2.9	15.7	+- 0.8; 4.5	17.9	+- 1.4
28	115	5.2	19.1	+- 0.6; 2.9	15.3	+- 0.8; 4.4	17.5	+- 1.1
29	128	5.1	19.5	+- 0.6; 2.9	15.8	+- 0.8; 4.5	18.2	+- 1.2
30	153	5.8	19.8	+- 0.6; 3.0	16.1	+- 0.8; 4.5	18.6	+- 1.5
31	173	5.2	18.5	+- 0.6; 2.8	14.7	+- 0.7; 4.4	18.1	+- 1.2
32	205	4.7	20.3	+- 0.6; 3.0	16.7	+- 0.8; 4.6	18.2	+- 1.4
33	238	6.1	19.3	+- 0.6; 2.9	15.6	+- 0.8; 4.5	18.3	+- 1.3
34	252	5.8	19.5	+- 0.6; 2.9	15.8	+- 0.8; 4.5	17.5	+- 2.1
35	260	6.6	17.5	+- 0.5; 2.6	13.5	+- 0.7; 4.3	14.9	+- 1.4
36	272	4.8	20.3	+- 0.6; 3.1	16.7	+- 0.8; 4.6	18.6	+- 1.4
37	288	4.8	19.7	+- 0.6; 3.0	16.0	+- 0.8; 4.5	17.5	+- 1.4
38	297	7.6	18.8	+- 0.6; 2.8	15.0	+- 0.7; 4.4	16.2	+- 1.3
39	315	5.1	19.6	+- 0.6; 2.9	15.9	+- 0.8; 4.5	18.4	+- 1.7
40	342	4.8	20.1	+- 0.6; 3.0	16.4	+- 0.8; 4.6	18.4	+- 1.3
41	65	12.0	19.3	+- 0.6; 2.9	15.6	+- 0.8; 4.5	17.7	+- 1.8
42	148	12.0	25.3	+- 0.8; 3.8	22.2	+- 0.9; 5.2	18.8	+- 2.4
43	148	12.0	25.7	+- 0.8; 3.9	22.7	+- 0.9; 5.3	19.3	+- 2.2
44	206	14.0	18.8	+- 0.6; 2.8	14.9	+- 0.7; 4.4	15.8	+- 1.3

Transit Dose = 5.3 +- 0.4; 2.8

CLINTON

For the period 961210-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.2 +- 0.5	3
11.26 - 33.75 NNE	16.7 +- 0.0	1
33.76 - 56.25 NE	17.5 +- 0.7	3
56.26 - 78.75 ENE	16.0 +- 0.5	4
78.76 - 101.25 E	15.8 +- 1.1	3
101.26 - 123.75 ESE	14.4 +- 1.3	2
123.76 - 146.25 SE	16.1 +- 0.6	2
146.26 - 168.75 SSE	16.7 +- 0.8	3
168.76 - 191.25 S	14.7 +- 0.0	1
191.26 - 213.75 SSW	16.5 +- 1.7	3
213.76 - 236.25 SW	17.2 +- 0.5	3
236.26 - 258.75 WSW	16.3 +- 1.1	3
258.76 - 281.25 W	15.7 +- 1.9	3
281.26 - 303.75 WNW	15.5 +- 0.5	3
303.76 - 326.25 NW	15.9 +- 0.0	1
326.26 - 348.75 NNW	16.4 +- 0.1	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.8 +- 0.9	12
2 - 5	16.3 +- 1.1	17
> 5	15.3 +- 0.7	11
Upwind Control	19.9 +- 4.3	3

NRC TLD DOSES FOR CLINTON AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

COMANCHE PEAK

TLD Direct Radiation Environmental Monitoring

For the period 961209-970417 130 Days

Field Time: 71 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	306	1.4	18.6	+- 0.6; 2.8	17.2	+- 0.8; 4.7	15.4	+- 1.1
2	285	1.5	19.1	+- 0.6; 2.9	17.8	+- 0.8; 4.8	16.0	+- 1.0
3	268	1.1	16.0	+- 0.5; 2.4	13.9	+- 0.7; 4.4	14.0	+- 0.8
4	253	0.9	17.8	+- 0.5; 2.7	16.2	+- 0.8; 4.6	15.4	+- 1.0
5	218	1.0	17.0	+- 0.5; 2.6	15.2	+- 0.8; 4.5	15.5	+- 0.9
6	200	1.0	17.6	+- 0.5; 2.6	16.0	+- 0.8; 4.6	13.8	+- 1.2
7	180	1.4	17.6	+- 0.5; 2.6	16.0	+- 0.8; 4.6	13.9	+- 0.9
8	163	1.6	20.3	+- 0.6; 3.0	19.4	+- 0.9; 5.0	15.9	+- 1.5
9	140	1.3	18.4	+- 0.6; 2.8	16.9	+- 0.8; 4.7	15.7	+- 0.8
10	118	1.5	17.2	+- 0.5; 2.6	15.4	+- 0.8; 4.5	14.1	+- 1.2
11	93	1.9	16.4	+- 0.5; 2.5	14.4	+- 0.7; 4.4	15.5	+- 2.6
12	73	2.4	19.4	+- 0.6; 2.9	18.3	+- 0.8; 4.9	17.2	+- 1.0
13	245	1.7	17.5	+- 0.5; 2.6	15.8	+- 0.8; 4.6	14.3	+- 1.0
14	156	4.3	17.2	+- 0.5; 2.6	15.4	+- 0.8; 4.5	13.9	+- 1.1
15	186	7.0	17.0	+- 0.5; 2.5	15.2	+- 0.8; 4.5	15.1	+- 1.3
16	183	4.1	17.2	+- 0.5; 2.6	15.4	+- 0.8; 4.5	15.5	+- 1.3
17	205	4.3	18.3	+- 0.5; 2.7	16.8	+- 0.8; 4.7	15.5	+- 0.8
18	225	3.4	16.5	+- 0.5; 2.5	14.6	+- 0.8; 4.5	12.9	+- 1.1
19	245	5.2	18.6	+- 0.6; 2.8	17.2	+- 0.8; 4.7	15.4	+- 0.8
20	264	5.8	16.7	+- 0.5; 2.5	14.8	+- 0.8; 4.5	14.0	+- 0.9
21	258	3.2	17.2	+- 0.5; 2.6	15.5	+- 0.8; 4.5	13.9	+- 1.0
22	284	5.1	15.9	+- 0.5; 2.4	13.8	+- 0.7; 4.4	13.5	+- 1.0
23	313	5.8	17.2	+- 0.5; 2.6	15.4	+- 0.8; 4.5	15.2	+- 1.0
24	332	4.9	17.8	+- 0.5; 2.7	16.2	+- 0.8; 4.6	14.3	+- 0.9
25	9	4.6	18.8	+- 0.6; 2.8	17.5	+- 0.8; 4.8	14.9	+- 1.0
26	26	4.5	17.8	+- 0.5; 2.7	16.2	+- 0.8; 4.6	14.7	+- 1.1
27	47	4.1	18.0	+- 0.5; 2.7	16.5	+- 0.8; 4.7	14.5	+- 1.0
28	6	1.8	18.2	+- 0.5; 2.7	16.8	+- 0.8; 4.7	15.0	+- 1.1
29	16	1.9	17.4	+- 0.5; 2.6	15.8	+- 0.8; 4.6	14.7	+- 1.0
30	102	3.0	19.0	+- 0.6; 2.8	17.7	+- 0.8; 4.8	15.7	+- 1.3
31	108	3.9	18.0	+- 0.5; 2.7	16.4	+- 0.8; 4.6	14.9	+- 1.0
32	135	4.6	18.3	+- 0.6; 2.8	16.9	+- 0.8; 4.7	15.6	+- 1.1
33	152	6.3	17.6	+- 0.5; 2.6	15.9	+- 0.8; 4.6	13.9	+- 1.1
34	47	2.9	17.0	+- 0.5; 2.5	15.2	+- 0.8; 4.5	13.7	+- 1.3
35	85	4.8	17.3	+- 0.5; 2.6	15.6	+- 0.8; 4.6	15.1	+- 1.1
36	115	7.5	18.4	+- 0.6; 2.8	17.0	+- 0.8; 4.7	15.3	+- 1.2
37	355	9.4	17.2	+- 0.5; 2.6	15.5	+- 0.8; 4.5	14.4	+- 1.1
38	337	9.2	17.5	+- 0.5; 2.6	15.8	+- 0.8; 4.6	14.3	+- 1.1
39	310	9.9	16.6	+- 0.5; 2.5	14.7	+- 0.8; 4.5	14.3	+- 1.2
40	302	8.1	16.6	+- 0.5; 2.5	14.7	+- 0.8; 4.5	13.7	+- 1.2
41	248	7.9	19.1	+- 0.6; 2.9	17.8	+- 0.8; 4.8	15.9	+- 0.9
42	90	0.5	18.9	+- 0.6; 2.8	17.5	+- 0.8; 4.8	14.4	+- 1.5
43	18	9.8	17.6	+- 0.5; 2.6	16.0	+- 0.8; 4.6	14.9	+- 1.0
44	263	1.7	18.9	+- 0.6; 2.8	17.5	+- 0.8; 4.8	13.8	+- 1.8
45	218	12.0	17.3	+- 0.5; 2.6	15.5	+- 0.8; 4.6	14.9	+- 1.0
46	140	12.0	18.0	+- 0.5; 2.7	16.5	+- 0.8; 4.7	14.8	+- 1.0
47	301	21.0	18.0	+- 0.5; 2.7	16.5	+- 0.8; 4.7	14.5	+- 0.8

Transit Dose = 5.0 +- 0.3; 2.5

COMANCHE PEAK
For the period 961209-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.6 +- 1.0	3
11.26 - 33.75 NNE	16.0 +- 0.2	3
33.76 - 56.25 NE	15.8 +- 1.0	2
56.26 - 78.75 ENE	18.3 +- 0.0	1
78.76 - 101.25 E	15.9 +- 1.6	3
101.26 - 123.75 ESE	16.6 +- 1.0	4
123.76 - 146.25 SE	16.8 +- 0.3	3
146.26 - 168.75 SSE	16.9 +- 2.2	3
168.76 - 191.25 S	15.5 +- 0.4	3
191.26 - 213.75 SSW	16.4 +- 0.6	2
213.76 - 236.25 SW	15.1 +- 0.5	3
236.26 - 258.75 WSW	16.5 +- 1.0	5
258.76 - 281.25 W	15.4 +- 1.9	3
281.26 - 303.75 WNW	15.7 +- 1.8	4
303.76 - 326.25 NW	15.8 +- 1.3	3
326.26 - 348.75 NNW	16.0 +- 0.3	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.4 +- 1.4	16
2 - 5	16.3 +- 1.0	15
> 5	15.8 +- 1.1	16
Upwind Control	No Data +- No Data	0

NRC TLD DOSES FOR COMANCHE PEAK AREA

Miles

Legend

Water

Railroads

Plant..site

Highways

Roads

COOPER

TLD Direct Radiation Environmental Monitoring

For the period 961209-970506 149 Days

Field Time: 92 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	350	2.3	Missing Dosimeter		No Net Data		18.2 +- 1.6	
2	6	3.5	28.8 +- 0.9; 4.3		18.7 +- 1.0; 5.5		19.0 +- 1.3	
3	18	2.7	27.7 +- 0.8; 4.1		17.6 +- 1.0; 5.3		19.6 +- 1.5	
4	16	3.2	29.2 +- 0.9; 4.4		19.1 +- 1.0; 5.5		19.8 +- 1.5	
5	47	1.9	27.0 +- 0.8; 4.1		17.0 +- 0.9; 5.3		19.6 +- 1.3	
6	40	3.6	27.4 +- 0.8; 4.1		17.3 +- 0.9; 5.3		18.9 +- 1.7	
7	75	2.7	27.8 +- 0.8; 4.2		17.7 +- 1.0; 5.4		18.8 +- 1.9	
8	55	2.8	27.7 +- 0.8; 4.2		17.6 +- 1.0; 5.4		18.8 +- 1.9	
9	80	2.1	28.0 +- 0.8; 4.2		17.9 +- 1.0; 5.4		20.4 +- 1.6	
10	98	3.7	27.0 +- 0.8; 4.0		16.9 +- 0.9; 5.3		18.7 +- 1.4	
11	118	2.3	28.2 +- 0.8; 4.2		18.1 +- 1.0; 5.4		20.2 +- 1.6	
12	109	4.6	27.9 +- 0.8; 4.2		17.8 +- 1.0; 5.4		19.9 +- 1.3	
13	141	3.2	27.7 +- 0.8; 4.2		17.6 +- 1.0; 5.4		19.5 +- 1.3	
14	126	5.6	26.8 +- 0.8; 4.0		16.7 +- 0.9; 5.2		18.4 +- 1.8	
15	159	2.7	27.3 +- 0.8; 4.1		17.2 +- 0.9; 5.3		18.8 +- 1.4	
16	167	4.9	25.0 +- 0.7; 3.7		14.9 +- 0.9; 5.1		19.2 +- 2.4	
17	205	0.3	26.8 +- 0.8; 4.0		16.8 +- 0.9; 5.3		19.6 +- 1.8	
18	186	4.7	28.8 +- 0.9; 4.3		18.7 +- 1.0; 5.5		20.5 +- 1.6	
19	213	3.0	28.0 +- 0.8; 4.2		18.0 +- 1.0; 5.4		19.4 +- 1.4	
20	195	4.9	29.8 +- 0.9; 4.5		19.7 +- 1.0; 5.6		20.5 +- 1.7	
21	222	2.0	27.6 +- 0.8; 4.1		17.5 +- 1.0; 5.3		18.5 +- 1.4	
22	215	5.7	28.6 +- 0.9; 4.3		18.5 +- 1.0; 5.5		20.4 +- 1.7	
23	256	1.5	28.2 +- 0.8; 4.2		18.2 +- 1.0; 5.4		20.2 +- 1.7	
24	238	5.2	28.6 +- 0.9; 4.3		18.5 +- 1.0; 5.4		20.2 +- 1.6	
25	276	2.2	28.2 +- 0.8; 4.2		18.1 +- 1.0; 5.4		20.6 +- 1.4	
26	260	3.8	30.1 +- 0.9; 4.5		19.9 +- 1.0; 5.6		20.7 +- 1.4	
27	301	1.8	27.7 +- 0.8; 4.2		17.6 +- 1.0; 5.3		20.2 +- 1.5	
28	286	4.3	28.6 +- 0.9; 4.3		18.5 +- 1.0; 5.5		20.0 +- 1.8	
29	324	2.8	27.5 +- 0.8; 4.1		17.5 +- 1.0; 5.3		19.3 +- 2.2	
30	333	3.7	28.4 +- 0.9; 4.3		18.3 +- 1.0; 5.4		19.9 +- 1.5	
31	343	2.6	30.2 +- 0.9; 4.5		20.1 +- 1.0; 5.6		20.4 +- 1.8	
32	333	3.7	28.8 +- 0.9; 4.3		18.7 +- 1.0; 5.5		19.9 +- 2.0	
33	215	1.0	29.2 +- 0.9; 4.4		19.1 +- 1.0; 5.5		20.2 +- 2.2	
34	175	18.0	29.1 +- 0.9; 4.4		19.0 +- 1.0; 5.5		20.6 +- 2.1	
35	333	23.0	28.4 +- 0.9; 4.3		18.3 +- 1.0; 5.4		18.9 +- 1.8	
36	210	19.0	28.9 +- 0.9; 4.3		18.8 +- 1.0; 5.5		20.0 +- 2.5	
37	64	7.0	30.7 +- 0.9; 4.6		20.6 +- 1.0; 5.7		23.2 +- 3.2	
38	329	9.0	28.4 +- 0.9; 4.3		18.3 +- 1.0; 5.4		21.7 +- 2.8	
39	273	10.0	27.7 +- 0.8; 4.1		17.6 +- 1.0; 5.3		19.3 +- 1.9	
40	300	2.5	30.2 +- 0.9; 4.5		20.1 +- 1.0; 5.6		22.3 +- 2.2	
42	93	3.5	27.7 +- 0.8; 4.2		17.6 +- 1.0; 5.4		19.2 +- 1.6	
43	270	2.2	28.2 +- 0.8; 4.2		18.1 +- 1.0; 5.4		19.9 +- 1.7	

Transit Dose = 9.7 +- 0.5; 3.6

COOPER

For the period 961209-970506

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	18.7 +- 0.0	1
11.26 - 33.75 NNE	18.3 +- 1.1	2
33.76 - 56.25 NE	17.3 +- 0.3	3
56.26 - 78.75 ENE	19.2 +- 2.0	2
78.76 - 101.25 E	17.5 +- 0.5	3
101.26 - 123.75 ESE	17.9 +- 0.2	2
123.76 - 146.25 SE	17.2 +- 0.6	2
146.26 - 168.75 SSE	16.1 +- 1.6	2
168.76 - 191.25 S	18.7 +- 0.0	1
191.26 - 213.75 SSW	18.1 +- 1.4	3
213.76 - 236.25 SW	18.4 +- 0.8	3
236.26 - 258.75 WSW	18.3 +- 0.2	2
258.76 - 281.25 W	18.4 +- 1.0	4
281.26 - 303.75 WNW	18.7 +- 1.3	3
303.76 - 326.25 NW	17.5 +- 0.0	1
326.26 - 348.75 NNW	18.9 +- 0.9	4

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.7 +- 0.9	6
2 - 5	18.2 +- 1.1	26
> 5	18.4 +- 1.3	6
Upwind Control	18.7 +- 0.4	3

NRC TLD DOSES FOR COOPER AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

CRYSTAL RIVER

TLD Direct Radiation Environmental Monitoring

For the period 961210-970421 133 Days

Field Time: 87 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
6	61	4.2	Missing Dosimeter	No Net Data	11.8 +- 2.3
7	50	3.8	Damaged Dosimeter	No Net Data	12.0 +- 2.5
8	20	5.2	14.3 +- 0.4; 2.1	13.1 +- 0.5; 3.5	12.5 +- 2.3
9	6	5.4	15.6 +- 0.5; 2.3	14.4 +- 0.6; 3.7	14.4 +- 2.3
10	348	5.0	15.1 +- 0.5; 2.3	13.9 +- 0.5; 3.6	13.7 +- 2.2
11	334	4.8	13.3 +- 0.4; 2.0	12.0 +- 0.5; 3.4	13.0 +- 2.4
12	318	4.8	14.8 +- 0.4; 2.2	13.5 +- 0.5; 3.6	12.7 +- 2.7
13	79	3.8	14.1 +- 0.4; 2.1	12.9 +- 0.5; 3.5	13.1 +- 2.4
14	95	4.1	13.6 +- 0.4; 2.0	12.4 +- 0.5; 3.5	12.5 +- 2.6
15	89	1.8	17.1 +- 0.5; 2.6	16.0 +- 0.6; 3.8	15.1 +- 2.4
16	113	5.0	14.1 +- 0.4; 2.1	12.9 +- 0.5; 3.5	11.8 +- 1.5
17	133	5.5	Damaged Dosimeter	No Net Data	13.6 +- 2.8
18	74	8.1	14.5 +- 0.4; 2.2	13.3 +- 0.5; 3.6	12.3 +- 2.5
19	127	7.6	14.7 +- 0.4; 2.2	13.5 +- 0.5; 3.6	12.7 +- 2.4
20	150	12.0	13.0 +- 0.4; 2.0	11.8 +- 0.5; 3.4	11.7 +- 2.4
21	159	13.0	15.7 +- 0.5; 2.4	14.5 +- 0.6; 3.7	12.8 +- 2.6
22	150	13.0	Damaged Dosimeter	No Net Data	12.7 +- 2.6
23	150	21.0	17.4 +- 0.5; 2.6	16.2 +- 0.6; 3.9	13.7 +- 3.5
24	150	21.0	14.0 +- 0.4; 2.1	12.8 +- 0.5; 3.5	11.7 +- 2.4
25	56	6.1	13.9 +- 0.4; 2.1	12.6 +- 0.5; 3.5	14.2 +- 3.4
26	357	5.2	14.5 +- 0.4; 2.2	13.2 +- 0.5; 3.6	13.2 +- 2.5
27	90	13.0	14.6 +- 0.4; 2.2	13.4 +- 0.5; 3.6	12.9 +- 2.5
28	140	4.8	15.0 +- 0.4; 2.2	13.8 +- 0.5; 3.6	13.2 +- 2.3

Transit Dose = 1.7 +- 0.3; 2.7

CRYSTAL RIVER
For the period 961210-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	13.8 +- 0.8	2
11.26 - 33.75 NNE	13.1 +- 0.0	1
33.76 - 56.25 NE	12.6 +- 0.0	1
56.26 - 78.75 ENE	13.3 +- 0.0	1
78.76 - 101.25 E	13.7 +- 1.6	4
101.26 - 123.75 ESE	12.9 +- 0.0	1
123.76 - 146.25 SE	13.6 +- 0.2	2
146.26 - 168.75 SSE	13.1 +- 1.9	2
168.76 - 191.25 S	No Data +- No Data	0
191.26 - 213.75 SSW	No Data +- No Data	0
213.76 - 236.25 SW	No Data +- No Data	0
236.26 - 258.75 WSW	No Data +- No Data	0
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	13.5 +- 0.0	1
326.26 - 348.75 NNW	12.9 +- 1.3	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.0 +- 0.0	1
2 - 5	13.0 +- 0.7	7
> 5	13.3 +- 0.8	9
Upwind Control	14.5 +- 2.4	2

NRC TLD DOSES FOR CRYSTAL RIVER AREA

Miles

0 2 4

Legend

Water

Highways

Railroads

Roads

Plant..site

DAVIS BESSE

TLD Direct Radiation Environmental Monitoring

For the period 961210-970410 122 Days

Field Time: 89 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev	
1	50	0.6	13.5 +- 0.4; 2.0	11.2 +- 0.5; 3.5	12.5 +- 1.3
2	86	0.9	15.9 +- 0.5; 2.4	13.6 +- 0.6; 3.7	13.8 +- 1.2
3	116	1.4	14.7 +- 0.4; 2.2	12.4 +- 0.5; 3.6	13.1 +- 1.2
4	172	0.8	17.5 +- 0.5; 2.6	15.2 +- 0.6; 3.9	15.8 +- 1.8
5	200	1.5	21.6 +- 0.6; 3.2	19.4 +- 0.7; 4.3	19.5 +- 1.9
6	226	1.0	17.6 +- 0.5; 2.6	15.4 +- 0.6; 3.9	16.3 +- 1.4
7	249	1.5	18.5 +- 0.6; 2.8	16.2 +- 0.6; 4.0	17.1 +- 1.3
8	267	1.8	18.8 +- 0.6; 2.8	16.6 +- 0.6; 4.0	17.1 +- 1.5
9	285	1.8	19.8 +- 0.6; 3.0	17.6 +- 0.7; 4.1	17.5 +- 1.5
10	306	1.5	16.3 +- 0.5; 2.5	14.1 +- 0.6; 3.7	14.9 +- 1.5
11	344	0.9	16.7 +- 0.5; 2.5	14.4 +- 0.6; 3.8	14.5 +- 1.2
12	142	4.5	19.1 +- 0.6; 2.9	16.9 +- 0.7; 4.0	18.4 +- 1.7
13	158	4.0	20.9 +- 0.6; 3.1	18.7 +- 0.7; 4.2	19.4 +- 1.6
14	180	3.8	19.2 +- 0.6; 2.9	16.9 +- 0.7; 4.0	16.3 +- 1.5
15	207	4.8	19.2 +- 0.6; 2.9	17.0 +- 0.7; 4.0	17.6 +- 2.0
16	225	4.5	18.7 +- 0.6; 2.8	16.5 +- 0.6; 4.0	17.5 +- 1.6
17	254	2.7	22.4 +- 0.7; 3.4	20.2 +- 0.7; 4.4	20.9 +- 1.7
18	269	3.0	19.0 +- 0.6; 2.9	16.8 +- 0.6; 4.0	17.9 +- 1.6
19	295	5.3	21.5 +- 0.6; 3.2	19.2 +- 0.7; 4.3	19.8 +- 1.7
20	25	0.5	13.5 +- 0.4; 2.0	11.2 +- 0.5; 3.5	12.6 +- 1.7
21	132	9.7	17.9 +- 0.5; 2.7	15.6 +- 0.6; 3.9	16.9 +- 1.3
22	210	6.5	18.1 +- 0.5; 2.7	15.8 +- 0.6; 3.9	17.5 +- 3.2

Transit Dose = 2.4 +- 0.3; 2.8

DAVIS BESSE

For the period 961210-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	11.2 +- 0.0	1
33.76 - 56.25 NE	11.2 +- 0.0	1
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	13.6 +- 0.0	1
101.26 - 123.75 ESE	12.4 +- 0.0	1
123.76 - 146.25 SE	16.9 +- 0.0	1
146.26 - 168.75 SSE	18.7 +- 0.0	1
168.76 - 191.25 S	16.1 +- 1.2	2
191.26 - 213.75 SSW	18.2 +- 1.7	2
213.76 - 236.25 SW	15.9 +- 0.8	2
236.26 - 258.75 WSW	18.2 +- 2.8	2
258.76 - 281.25 W	16.7 +- 0.2	2
281.26 - 303.75 WNW	18.4 +- 1.2	2
303.76 - 326.25 NW	14.1 +- 0.0	1
326.26 - 348.75 NNW	14.4 +- 0.0	1

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	14.8 +- 2.5	12
2 - 5	17.6 +- 1.4	7
> 5	19.2 +- 0.0	1
Upwind Control	15.7 +- 0.2	2

NRC TLD DOSES FOR DAVIS-BESSE AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

DC COOK

TLD Direct Radiation Environmental Monitoring

For the period 961210-970429 141 Days

Field Time: 93 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	54	1.7	18.7 +- 0.6; 2.8	14.0 +- 0.6; 4.0	13.6 +- 0.8
2	67	1.3	18.9 +- 0.6; 2.8	14.2 +- 0.6; 4.0	16.1 +- 2.2
3	89	1.1	17.0 +- 0.5; 2.5	12.3 +- 0.6; 3.8	12.5 +- 1.0
4	58	0.7	16.9 +- 0.5; 2.5	12.3 +- 0.6; 3.8	12.5 +- 0.7
5	19	2.3	18.0 +- 0.5; 2.7	13.3 +- 0.6; 3.9	13.5 +- 0.7
6	111	1.6	20.5 +- 0.6; 3.1	15.8 +- 0.7; 4.2	13.4 +- 0.8
7	135	1.5	17.7 +- 0.5; 2.6	13.0 +- 0.6; 3.9	12.9 +- 0.9
8	158	1.4	18.8 +- 0.6; 2.8	14.1 +- 0.6; 4.0	15.5 +- 2.5
9	171	1.9	16.2 +- 0.5; 2.4	11.6 +- 0.6; 3.8	12.8 +- 0.8
10	199	1.5	17.4 +- 0.5; 2.6	12.8 +- 0.6; 3.9	13.1 +- 0.7
11	195	3.9	Missing Dosimeter	No Net Data	13.0 +- 0.8
12	200	6.6	Missing Dosimeter	No Net Data	13.5 +- 1.1
13	179	3.9	20.6 +- 0.6; 3.1	15.8 +- 0.7; 4.2	16.0 +- 1.2
14	151	4.4	22.3 +- 0.7; 3.3	17.5 +- 0.7; 4.4	17.0 +- 1.2
15	130	4.6	22.2 +- 0.7; 3.3	17.4 +- 0.7; 4.4	17.2 +- 1.0
16	110	3.7	21.5 +- 0.6; 3.2	16.7 +- 0.7; 4.3	15.0 +- 1.1
17	88	3.6	19.1 +- 0.6; 2.9	14.4 +- 0.7; 4.0	14.0 +- 0.8
18	67	3.8	18.8 +- 0.6; 2.8	14.1 +- 0.6; 4.0	14.2 +- 1.6
19	24	3.8	17.8 +- 0.5; 2.7	13.1 +- 0.6; 3.9	12.7 +- 1.1
20	43	3.3	20.2 +- 0.6; 3.0	15.4 +- 0.7; 4.2	15.6 +- 2.4
21	26	9.9	22.6 +- 0.7; 3.4	17.8 +- 0.7; 4.4	17.2 +- 3.3
22	121	18.0	19.2 +- 0.6; 2.9	14.5 +- 0.7; 4.1	14.0 +- 0.9
23	121	18.0	20.4 +- 0.6; 3.1	15.6 +- 0.7; 4.2	14.3 +- 1.0
24	121	18.0	19.5 +- 0.6; 2.9	14.8 +- 0.7; 4.1	15.5 +- 2.0

Transit Dose = 4.2 +- 0.4; 3.0

DC COOK

For the period 961210-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	14.7 +- 2.7	3
33.76 - 56.25 NE	14.7 +- 1.0	2
56.26 - 78.75 ENE	13.5 +- 1.1	3
78.76 - 101.25 E	13.4 +- 1.4	2
101.26 - 123.75 ESE	16.2 +- 0.6	2
123.76 - 146.25 SE	15.2 +- 3.1	2
146.26 - 168.75 SSE	15.8 +- 2.4	2
168.76 - 191.25 S	13.7 +- 3.0	2
191.26 - 213.75 SSW	12.8 +- 0.0	1
213.76 - 236.25 SW	No Data +- No Data	0
236.26 - 258.75 WSW	No Data +- No Data	0
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	13.3 +- 1.3	9
2 - 5	15.3 +- 1.7	9
> 5	17.8 +- 0.0	1
Upwind Control	15.0 +- 0.6	3

NRC TLD DOSES FOR D.C. COOK AREA

Miles

Legend

Water

Railroads

Plant..site

Highways

Roads

DIABLO CANYON

TLD Direct Radiation Environmental Monitoring

For the period 961205-970429 146 Days

Field Time: 96 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	132	0.9	29.4 +- 0.9; 4.4	22.8 +- 0.9; 5.1	23.2 +- 1.2
2	119	3.9	27.8 +- 0.8; 4.2	21.3 +- 0.9; 4.9	21.1 +- 1.1
3	107	7.2	Missing Dosimeter	No Net Data	19.4 +- 1.3
4	111	10.3	25.0 +- 0.7; 3.7	18.6 +- 0.8; 4.6	18.5 +- 1.0
5	115	13.9	25.3 +- 0.8; 3.8	19.0 +- 0.8; 4.7	19.6 +- 1.5
6	68	9.4	Missing Dosimeter	No Net Data	18.8 +- 0.0
7	359	11.1	22.6 +- 0.7; 3.4	16.4 +- 0.7; 4.4	16.2 +- 2.0
8	359	6.6	19.2 +- 0.6; 2.9	13.2 +- 0.7; 4.0	14.3 +- 1.4
9	339	4.8	18.9 +- 0.6; 2.8	13.0 +- 0.6; 4.0	13.4 +- 0.9
10	327	3.6	17.9 +- 0.5; 2.7	12.0 +- 0.6; 3.9	13.7 +- 1.2
11	325	1.2	Missing Dosimeter	No Net Data	14.3 +- 1.3
12	36	20.7	27.3 +- 0.8; 4.1	20.8 +- 0.9; 4.9	21.2 +- 1.2
13	36	20.7	25.7 +- 0.8; 3.9	19.3 +- 0.8; 4.7	20.9 +- 1.5
14	36	20.7	27.1 +- 0.8; 4.1	20.6 +- 0.8; 4.8	21.5 +- 1.4

Transit Dose = 5.1 +- 0.4; 3.2

DIABLO CANYON
For the period 961205-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	14.8 +- 2.2	2
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	19.6 +- 1.5	3
123.76 - 146.25 SE	22.8 +- 0.0	1
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	No Data +- No Data	0
191.26 - 213.75 SSW	No Data +- No Data	0
213.76 - 236.25 SW	No Data +- No Data	0
236.26 - 258.75 WSW	No Data +- No Data	0
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	12.5 +- 0.7	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	22.8 +- 0.0	1
2 - 5	15.4 +- 5.1	3
> 5	16.8 +- 2.6	4
Upwind Control	20.2 +- 0.8	3

NRC TLD DOSES FOR DIABLO CANYON AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant..site

DRESDEN

TLD Direct Radiation Environmental Monitoring

For the period 961210-970417 129 Days

Field Time: 91 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	70 4.2	20.4 +- 0.6; 3.1	16.7 +- 0.7; 4.2	17.2 +- 1.8
2	76 3.9	18.2 +- 0.5; 2.7	14.5 +- 0.6; 4.0	16.1 +- 2.5
3	108 3.2	19.1 +- 0.6; 2.9	15.4 +- 0.7; 4.0	17.2 +- 1.5
4	142 1.3	18.8 +- 0.6; 2.8	15.1 +- 0.6; 4.0	14.6 +- 1.6
5	115 1.5	16.9 +- 0.5; 2.5	13.3 +- 0.6; 3.8	14.3 +- 1.6
6	180 1.9	20.5 +- 0.6; 3.1	16.7 +- 0.7; 4.2	17.3 +- 2.0
7	179 0.5	19.0 +- 0.6; 2.9	15.3 +- 0.7; 4.0	16.5 +- 1.5
8	180 0.7	16.6 +- 0.5; 2.5	12.9 +- 0.6; 3.8	14.4 +- 1.4
9	253 0.5	20.8 +- 0.6; 3.1	17.1 +- 0.7; 4.2	18.0 +- 1.5
10	254 1.3	24.3 +- 0.7; 3.6	20.5 +- 0.8; 4.6	24.5 +- 3.6
11	250 1.5	17.3 +- 0.5; 2.6	13.6 +- 0.6; 3.9	15.0 +- 2.2
12	263 2.1	21.1 +- 0.6; 3.2	17.3 +- 0.7; 4.3	17.9 +- 1.3
13	180 4.0	16.6 +- 0.5; 2.5	12.9 +- 0.6; 3.8	13.9 +- 1.4
14	158 4.8	16.8 +- 0.5; 2.5	13.1 +- 0.6; 3.8	15.0 +- 1.5
15	137 4.2	17.3 +- 0.5; 2.6	13.6 +- 0.6; 3.9	14.9 +- 2.1
16	134 8.4	17.8 +- 0.5; 2.7	14.1 +- 0.6; 3.9	14.6 +- 1.1
17	189 7.4	19.5 +- 0.6; 2.9	15.8 +- 0.7; 4.1	15.7 +- 1.6
18	203 4.1	15.6 +- 0.5; 2.3	11.9 +- 0.6; 3.7	13.4 +- 2.5
19	231 4.0	19.3 +- 0.6; 2.9	15.6 +- 0.7; 4.1	18.3 +- 2.3
20	244 6.4	19.2 +- 0.6; 2.9	15.5 +- 0.7; 4.1	16.1 +- 1.8
21	258 8.6	19.8 +- 0.6; 3.0	16.1 +- 0.7; 4.1	16.9 +- 1.6
22	269 4.4	17.1 +- 0.5; 2.6	13.4 +- 0.6; 3.8	14.6 +- 1.4
23	295 3.3	19.2 +- 0.6; 2.9	15.5 +- 0.7; 4.1	15.4 +- 1.4
24	311 3.9	20.0 +- 0.6; 3.0	16.3 +- 0.7; 4.1	16.4 +- 1.8
25	340 4.7	22.3 +- 0.7; 3.3	18.5 +- 0.7; 4.4	18.9 +- 2.1
26	7 4.4	18.6 +- 0.6; 2.8	14.9 +- 0.6; 4.0	15.7 +- 1.8
27	355 2.0	22.0 +- 0.7; 3.3	18.3 +- 0.7; 4.4	20.4 +- 1.7
28	327 1.7	Damaged Dosimeter	No Net Data	20.9 +- 1.7
29	318 1.4	20.4 +- 0.6; 3.1	16.7 +- 0.7; 4.2	18.1 +- 2.0
30	295 2.0	17.5 +- 0.5; 2.6	13.8 +- 0.6; 3.9	15.1 +- 2.5
31	30 1.5	21.9 +- 0.7; 3.3	18.1 +- 0.7; 4.3	19.5 +- 2.2
32	48 1.9	Missing Dosimeter	No Net Data	20.7 +- 2.0
33	76 1.4	23.0 +- 0.7; 3.5	19.3 +- 0.8; 4.5	18.9 +- 2.2
34	90 1.4	19.3 +- 0.6; 2.9	15.6 +- 0.7; 4.1	17.7 +- 2.4
35	26 4.5	19.9 +- 0.6; 3.0	16.2 +- 0.7; 4.1	17.5 +- 1.9
36	42 3.6	19.0 +- 0.6; 2.8	15.3 +- 0.7; 4.0	16.0 +- 2.1
37	52 11.5	20.1 +- 0.6; 3.0	16.4 +- 0.7; 4.2	16.7 +- 2.5
38	274 21.5	20.7 +- 0.6; 3.1	17.0 +- 0.7; 4.2	17.8 +- 2.5
39	274 21.5	20.3 +- 0.6; 3.1	16.6 +- 0.7; 4.2	17.7 +- 2.1
40	275 21.5	20.3 +- 0.6; 3.0	16.6 +- 0.7; 4.2	19.1 +- 2.7

Transit Dose = 3.5 +- 0.3; 2.9

DRESDEN

For the period 961210-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.6 +- 2.4	2
11.26 - 33.75 NNE	17.2 +- 1.4	2
33.76 - 56.25 NE	15.8 +- 0.8	2
56.26 - 78.75 ENE	16.8 +- 2.4	3
78.76 - 101.25 E	15.6 +- 0.0	1
101.26 - 123.75 ESE	14.3 +- 1.5	2
123.76 - 146.25 SE	14.3 +- 0.8	3
146.26 - 168.75 SSE	13.1 +- 0.0	1
168.76 - 191.25 S	14.7 +- 1.7	5
191.26 - 213.75 SSW	11.9 +- 0.0	1
213.76 - 236.25 SW	15.6 +- 0.0	1
236.26 - 258.75 WSW	16.6 +- 2.5	5
258.76 - 281.25 W	15.4 +- 2.8	2
281.26 - 303.75 WNW	14.7 +- 1.2	2
303.76 - 326.25 NW	16.5 +- 0.3	2
326.26 - 348.75 NNW	18.5 +- 0.0	1

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.2 +- 2.3	14
2 - 5	15.1 +- 1.8	16
> 5	15.6 +- 0.9	5
Upwind Control	16.8 +- 0.2	3

NRC TLD DOSES FOR DRESDEN AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant..site

DUANE ARNOLD

TLD Direct Radiation Environmental Monitoring

For the period 961210-970410 122 Days

Field Time: 101 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	163 9.7	16.9 +- 0.5; 2.5	15.1 +- 0.5; 3.4	16.5 +- 1.5
2	170 6.2	20.4 +- 0.6; 3.1	18.2 +- 0.6; 3.8	18.5 +- 1.4
3	180 3.5	Missing Dosimeter	No Net Data	15.4 +- 1.1
4	216 2.9	19.9 +- 0.6; 3.0	17.7 +- 0.6; 3.7	18.9 +- 1.6
5	201 2.5	15.6 +- 0.5; 2.3	13.9 +- 0.5; 3.3	15.4 +- 1.3
6	213 1.0	17.3 +- 0.5; 2.6	15.4 +- 0.5; 3.5	17.2 +- 1.5
7	248 1.0	19.9 +- 0.6; 3.0	17.7 +- 0.6; 3.7	19.0 +- 1.5
8	279 1.0	18.8 +- 0.6; 2.8	16.7 +- 0.5; 3.6	18.7 +- 1.5
9	298 1.0	20.7 +- 0.6; 3.1	18.5 +- 0.6; 3.8	19.8 +- 1.7
10	320 1.5	19.8 +- 0.6; 3.0	17.6 +- 0.6; 3.7	18.9 +- 1.7
11	343 1.0	19.1 +- 0.6; 2.9	17.0 +- 0.5; 3.6	19.6 +- 1.6
12	359 1.2	18.7 +- 0.6; 2.8	16.7 +- 0.5; 3.6	18.2 +- 1.5
13	237 0.5	18.6 +- 0.6; 2.8	16.5 +- 0.5; 3.6	17.6 +- 1.6
14	259 3.9	17.6 +- 0.5; 2.6	15.7 +- 0.5; 3.5	18.0 +- 1.8
15	272 5.0	15.3 +- 0.5; 2.3	13.6 +- 0.5; 3.3	15.1 +- 1.1
16	285 5.0	17.6 +- 0.5; 2.6	15.7 +- 0.5; 3.5	16.8 +- 1.3
17	308 4.5	18.5 +- 0.6; 2.8	16.5 +- 0.5; 3.6	18.7 +- 1.7
18	340 4.5	13.7 +- 0.4; 2.1	12.3 +- 0.4; 3.2	15.5 +- 1.5
19	291 15.0	17.3 +- 0.5; 2.6	15.4 +- 0.5; 3.5	17.3 +- 1.4
20	291 15.0	17.4 +- 0.5; 2.6	15.5 +- 0.5; 3.5	18.0 +- 1.5
21	291 15.0	16.9 +- 0.5; 2.5	15.1 +- 0.5; 3.4	16.9 +- 1.4
22	358 6.1	16.7 +- 0.5; 2.5	14.9 +- 0.5; 3.4	16.1 +- 1.3
23	7 2.9	16.4 +- 0.5; 2.5	14.6 +- 0.5; 3.4	15.5 +- 1.3
24	28 3.0	19.7 +- 0.6; 3.0	17.6 +- 0.6; 3.7	19.0 +- 1.7
25	39 3.5	17.9 +- 0.5; 2.7	15.9 +- 0.5; 3.5	17.5 +- 1.3
26	64 3.8	19.1 +- 0.6; 2.9	17.0 +- 0.5; 3.6	18.0 +- 1.3
27	50 1.9	16.1 +- 0.5; 2.4	14.3 +- 0.5; 3.4	15.9 +- 1.3
28	72 2.3	18.5 +- 0.6; 2.8	16.5 +- 0.5; 3.6	17.5 +- 1.3
29	91 3.0	15.9 +- 0.5; 2.4	14.2 +- 0.5; 3.3	16.0 +- 1.2
30	93 1.8	20.8 +- 0.6; 3.1	18.5 +- 0.6; 3.8	19.3 +- 1.3
31	113 2.0	19.8 +- 0.6; 3.0	17.6 +- 0.6; 3.7	19.3 +- 1.5
32	141 1.6	15.9 +- 0.5; 2.4	14.2 +- 0.5; 3.3	15.6 +- 1.4
33	153 1.5	19.0 +- 0.6; 2.8	16.9 +- 0.5; 3.6	18.1 +- 1.6
34	177 1.2	Missing Dosimeter	No Net Data	15.4 +- 1.7
35	153 4.2	15.3 +- 0.5; 2.3	13.6 +- 0.5; 3.3	15.2 +- 1.5
36	135 4.1	16.3 +- 0.5; 2.5	14.6 +- 0.5; 3.4	16.5 +- 1.3
37	111 4.6	19.2 +- 0.6; 2.9	17.1 +- 0.6; 3.6	18.9 +- 1.5
38	123 5.1	19.1 +- 0.6; 2.9	17.0 +- 0.5; 3.6	18.8 +- 1.3
39	132 7.0	16.2 +- 0.5; 2.4	14.4 +- 0.5; 3.4	16.0 +- 1.2
40	139 7.6	18.3 +- 0.5; 2.7	16.3 +- 0.5; 3.6	17.1 +- 1.2

Transit Dose = 0.0 +- 0.2; 2.9

DUANE ARNOLD
For the period 961210-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	15.4 +- 1.1	3
11.26 - 33.75 NNE	17.6 +- 0.0	1
33.76 - 56.25 NE	15.1 +- 1.1	2
56.26 - 78.75 ENE	16.8 +- 0.3	2
78.76 - 101.25 E	16.4 +- 3.1	2
101.26 - 123.75 ESE	17.3 +- 0.3	3
123.76 - 146.25 SE	14.8 +- 1.0	4
146.26 - 168.75 SSE	15.2 +- 1.6	3
168.76 - 191.25 S	18.2 +- 0.0	1
191.26 - 213.75 SSW	14.7 +- 1.1	2
213.76 - 236.25 SW	17.7 +- 0.0	1
236.26 - 258.75 WSW	17.1 +- 0.8	2
258.76 - 281.25 W	15.3 +- 1.6	3
281.26 - 303.75 WNW	17.1 +- 2.0	2
303.76 - 326.25 NW	17.0 +- 0.8	2
326.26 - 348.75 NNW	14.6 +- 3.4	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.7 +- 1.4	13
2 - 5	15.4 +- 1.6	16
> 5	16.0 +- 1.4	6
Upwind Control	15.3 +- 0.2	3

NRC TLD DOSES FOR DUANE ARNOLD AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

FARLEY

TLD Direct Radiation Environmental Monitoring

For the period 961210-970506 148 Days

Field Time: 91 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	268	15.0	17.9	+- 0.5; 2.7	12.5	+- 0.7; 4.0	13.9	+- 2.5
2	252	7.8	18.1	+- 0.5; 2.7	12.8	+- 0.7; 4.1	14.1	+- 2.4
3	217	6.1	19.6	+- 0.6; 2.9	14.2	+- 0.7; 4.2	15.6	+- 2.2
4	155	5.7	24.9	+- 0.7; 3.7	19.4	+- 0.8; 4.8	18.9	+- 2.1
5	170	5.1	20.1	+- 0.6; 3.0	14.7	+- 0.7; 4.3	15.5	+- 2.1
6	197	4.5	19.1	+- 0.6; 2.9	13.7	+- 0.7; 4.2	14.5	+- 2.1
7	191	2.4	19.9	+- 0.6; 3.0	14.5	+- 0.7; 4.2	17.7	+- 2.5
8	200	1.8	20.1	+- 0.6; 3.0	14.7	+- 0.7; 4.3	15.6	+- 2.1
9	220	1.2	18.2	+- 0.5; 2.7	12.8	+- 0.7; 4.1	14.0	+- 2.2
10	235	0.9	20.8	+- 0.6; 3.1	15.4	+- 0.7; 4.3	16.3	+- 2.1
11	300	0.9	22.3	+- 0.7; 3.3	16.9	+- 0.8; 4.5	16.4	+- 2.2
12	319	1.1	22.6	+- 0.7; 3.4	17.2	+- 0.8; 4.5	16.2	+- 2.3
13	338	1.3	18.6	+- 0.6; 2.8	13.2	+- 0.7; 4.1	14.5	+- 2.0
14	6	1.2	20.0	+- 0.6; 3.0	14.6	+- 0.7; 4.2	14.8	+- 2.2
15	16	1.3	24.1	+- 0.7; 3.6	18.6	+- 0.8; 4.7	20.1	+- 2.4
16	264	1.6	19.2	+- 0.6; 2.9	13.8	+- 0.7; 4.2	14.9	+- 2.1
17	253	3.5	20.4	+- 0.6; 3.1	15.0	+- 0.7; 4.3	17.1	+- 2.2
18	233	3.2	19.7	+- 0.6; 2.9	14.3	+- 0.7; 4.2	15.2	+- 2.1
19	267	4.5	21.0	+- 0.6; 3.1	15.6	+- 0.7; 4.4	16.3	+- 2.3
20	295	3.8	19.6	+- 0.6; 2.9	14.2	+- 0.7; 4.2	15.6	+- 2.2
21	315	4.6	18.7	+- 0.6; 2.8	13.3	+- 0.7; 4.1	14.6	+- 2.2
22	332	4.3	18.9	+- 0.6; 2.8	13.5	+- 0.7; 4.1	14.5	+- 2.1
23	251	4.8	17.3	+- 0.5; 2.6	11.9	+- 0.6; 4.0	14.1	+- 2.2
24	32	5.3	21.4	+- 0.6; 3.2	16.0	+- 0.7; 4.4	16.5	+- 2.1
25	54	6.2	20.0	+- 0.6; 3.0	14.6	+- 0.7; 4.3	14.3	+- 2.2
26	64	5.5	21.5	+- 0.6; 3.2	16.1	+- 0.7; 4.4	16.1	+- 2.1
27	88	4.7	21.1	+- 0.6; 3.2	15.7	+- 0.7; 4.4	15.6	+- 2.1
28	124	5.1	21.2	+- 0.6; 3.2	15.8	+- 0.7; 4.4	16.4	+- 2.0
29	153	4.1	20.2	+- 0.6; 3.0	14.8	+- 0.7; 4.3	15.6	+- 2.1
30	142	3.6	18.4	+- 0.6; 2.8	13.0	+- 0.7; 4.1	14.3	+- 2.1
31	130	3.0	18.4	+- 0.6; 2.8	13.0	+- 0.7; 4.1	13.3	+- 2.3
32	110	2.8	18.7	+- 0.6; 2.8	13.3	+- 0.7; 4.1	14.3	+- 2.3
33	78	2.6	18.4	+- 0.6; 2.8	13.0	+- 0.7; 4.1	14.1	+- 2.3
34	58	2.2	16.1	+- 0.5; 2.4	10.7	+- 0.6; 3.9	13.1	+- 2.0
35	34	2.4	22.7	+- 0.7; 3.4	17.3	+- 0.8; 4.5	19.3	+- 2.1
36	19	2.7	21.0	+- 0.6; 3.1	15.5	+- 0.7; 4.4	16.8	+- 2.1
37	284	10.0	19.9	+- 0.6; 3.0	14.5	+- 0.7; 4.2	15.5	+- 2.1
38	289	15.0	18.4	+- 0.6; 2.8	13.0	+- 0.7; 4.1	15.0	+- 3.0
39	293	15.0	20.3	+- 0.6; 3.0	14.9	+- 0.7; 4.3	16.6	+- 2.0

Transit Dose = 5.2 +- 0.4; 3.1

FARLEY

For the period 961210-970506

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	14.6 +- 0.0	1
11.26 - 33.75 NNE	16.7 +- 1.7	3
33.76 - 56.25 NE	15.9 +- 1.9	2
56.26 - 78.75 ENE	13.3 +- 2.7	3
78.76 - 101.25 E	15.7 +- 0.0	1
101.26 - 123.75 ESE	13.3 +- 0.0	1
123.76 - 146.25 SE	13.9 +- 1.6	3
146.26 - 168.75 SSE	17.1 +- 3.3	2
168.76 - 191.25 S	14.6 +- 0.1	2
191.26 - 213.75 SSW	14.2 +- 0.7	2
213.76 - 236.25 SW	14.2 +- 1.1	4
236.26 - 258.75 WSW	13.2 +- 1.6	3
258.76 - 281.25 W	13.9 +- 1.6	3
281.26 - 303.75 WNW	15.5 +- 1.9	2
303.76 - 326.25 NW	15.2 +- 2.7	2
326.26 - 348.75 NNW	13.3 +- 0.2	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.2 +- 2.0	9
2 - 5	14.0 +- 1.5	18
> 5	15.1 +- 2.1	9
Upwind Control	14.1 +- 1.0	3

NRC TLD DOSES FOR FARLEY AREA

Miles

Legend

— Highways

- - - Railroads

- - - Roads

★ Plant..site

FERMI

TLD Direct Radiation Environmental Monitoring

For the period 961210-970429 141 Days

Field Time: 91 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	38 2.1	17.4 +- 0.5; 2.6	10.6 +- 0.7; 4.1	12.1 +- 2.0
2	22 2.3	Missing Dosimeter	No Net Data	14.1 +- 1.2
3	350 1.8	23.9 +- 0.7; 3.6	17.1 +- 0.8; 4.8	19.8 +- 1.6
4	345 1.9	20.7 +- 0.6; 3.1	13.9 +- 0.7; 4.4	15.5 +- 1.5
5	346 1.4	20.7 +- 0.6; 3.1	13.8 +- 0.7; 4.4	16.3 +- 1.3
6	310 1.3	21.2 +- 0.6; 3.2	14.4 +- 0.8; 4.5	16.5 +- 1.7
7	298 1.4	21.1 +- 0.6; 3.2	14.3 +- 0.8; 4.5	16.4 +- 1.5
8	277 1.6	21.7 +- 0.7; 3.3	14.9 +- 0.8; 4.5	16.5 +- 0.9
9	238 1.0	18.5 +- 0.6; 2.8	11.7 +- 0.7; 4.2	14.3 +- 1.8
10	225 1.5	18.9 +- 0.6; 2.8	12.1 +- 0.7; 4.2	13.8 +- 0.9
11	193 0.8	19.1 +- 0.6; 2.9	12.3 +- 0.7; 4.3	16.0 +- 0.8
12	183 0.9	21.6 +- 0.6; 3.2	14.7 +- 0.8; 4.5	16.2 +- 1.0
13	175 0.8	22.5 +- 0.7; 3.4	15.6 +- 0.8; 4.6	15.8 +- 0.8
14	260 1.7	Damaged Dosimeter	No Net Data	18.2 +- 1.3
15	245 2.5	20.7 +- 0.6; 3.1	13.9 +- 0.7; 4.4	14.8 +- 1.0
16	236 5.0	22.8 +- 0.7; 3.4	16.0 +- 0.8; 4.6	18.4 +- 1.0
17	225 6.8	Missing Dosimeter	No Net Data	13.0 +- 1.2
18	250 7.8	22.0 +- 0.7; 3.3	15.1 +- 0.8; 4.6	12.9 +- 1.1
19	277 6.0	18.5 +- 0.6; 2.8	11.6 +- 0.7; 4.2	13.4 +- 1.0
20	297 6.0	19.8 +- 0.6; 3.0	13.0 +- 0.7; 4.3	15.2 +- 1.2
21	320 3.8	19.6 +- 0.6; 2.9	12.8 +- 0.7; 4.3	15.6 +- 1.1
22	340 4.7	23.0 +- 0.7; 3.5	16.2 +- 0.8; 4.7	17.0 +- 1.0
23	358 4.3	23.6 +- 0.7; 3.5	16.7 +- 0.8; 4.7	17.5 +- 1.5
24	23 5.0	23.7 +- 0.7; 3.5	16.8 +- 0.8; 4.7	18.6 +- 1.1
25	25 7.0	20.8 +- 0.6; 3.1	13.9 +- 0.7; 4.4	13.3 +- 1.0
26	0 7.0	20.7 +- 0.6; 3.1	13.8 +- 0.7; 4.4	14.0 +- 1.1
27	342 8.0	21.9 +- 0.7; 3.3	15.0 +- 0.8; 4.5	15.7 +- 1.0
28	320 9.5	19.9 +- 0.6; 3.0	13.1 +- 0.7; 4.3	14.3 +- 0.8
29	290 11.0	20.0 +- 0.6; 3.0	13.2 +- 0.7; 4.3	16.6 +- 1.5
30	270 11.0	21.7 +- 0.7; 3.3	14.8 +- 0.8; 4.5	17.8 +- 1.6
31	245 10.0	19.3 +- 0.6; 2.9	12.5 +- 0.7; 4.3	14.8 +- 1.2
32	220 11.0	21.6 +- 0.6; 3.2	14.7 +- 0.8; 4.5	15.4 +- 1.1
33	270 15.0	19.9 +- 0.6; 3.0	13.1 +- 0.7; 4.3	14.1 +- 1.1
34	270 15.0	20.3 +- 0.6; 3.0	13.5 +- 0.7; 4.4	14.4 +- 1.0
35	290 16.0	21.7 +- 0.7; 3.3	14.9 +- 0.8; 4.5	15.5 +- 0.9
36	350 0.8	18.7 +- 0.6; 2.8	11.9 +- 0.7; 4.2	13.9 +- 2.3
37	330 0.7	20.4 +- 0.6; 3.1	13.6 +- 0.7; 4.4	15.0 +- 0.9
38	310 0.7	23.3 +- 0.7; 3.5	16.4 +- 0.8; 4.7	15.1 +- 1.9
39	23 10.0	19.7 +- 0.6; 3.0	12.9 +- 0.7; 4.3	16.4 +- 2.0
40	0 9.0	21.2 +- 0.6; 3.2	14.4 +- 0.8; 4.5	17.6 +- 1.5
41	348 9.0	20.4 +- 0.6; 3.1	13.6 +- 0.7; 4.4	13.6 +- 0.8

Transit Dose = 6.7 +- 0.4; 3.2

FERMI

For the period 961210-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	14.8 +- 2.1	5
11.26 - 33.75 NNE	14.5 +- 2.0	3
33.76 - 56.25 NE	10.6 +- 0.0	1
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	No Data +- No Data	0
123.76 - 146.25 SE	No Data +- No Data	0
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	15.2 +- 0.6	2
191.26 - 213.75 SSW	12.3 +- 0.0	1
213.76 - 236.25 SW	14.2 +- 2.0	3
236.26 - 258.75 WSW	13.3 +- 1.5	4
258.76 - 281.25 W	13.8 +- 1.9	3
281.26 - 303.75 WNW	13.5 +- 0.7	3
303.76 - 326.25 NW	14.2 +- 1.6	4
326.26 - 348.75 NNW	14.3 +- 1.0	6

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	14.0 +- 1.7	14
2 - 5	14.7 +- 2.4	7
> 5	13.7 +- 1.1	14
Upwind Control	13.8 +- 0.9	3

NRC TLD DOSES FOR FERMI AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

FITZPATRICK/ NINE MI

TLD Direct Radiation Environmental Monitoring

For the period 961211-970414 125 Days

Field Time: 83 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	230	6.9	Damaged Dosimeter		No Net Data		14.4 +- 1.1	
2	184	14.0	16.9 +- 0.5; 2.5		13.9 +- 0.7; 4.1		15.5 +- 1.1	
3	122	8.4	15.3 +- 0.5; 2.3		12.1 +- 0.6; 3.9		14.0 +- 1.3	
4	76	11.0	16.6 +- 0.5; 2.5		13.5 +- 0.6; 4.0		14.8 +- 1.2	
5	91	6.8	17.0 +- 0.5; 2.6		14.0 +- 0.7; 4.1		15.1 +- 1.0	
6	112	4.3	16.6 +- 0.5; 2.5		13.5 +- 0.6; 4.0		14.8 +- 1.0	
7	138	4.3	16.3 +- 0.5; 2.4		13.2 +- 0.6; 4.0		14.8 +- 1.0	
8	152	3.6	14.7 +- 0.4; 2.2		11.4 +- 0.6; 3.8		14.7 +- 1.4	
9	183	3.9	Missing Dosimeter		No Net Data		15.1 +- 1.0	
10	205	4.5	15.9 +- 0.5; 2.4		12.7 +- 0.6; 3.9		13.9 +- 1.2	
11	220	4.4	18.1 +- 0.5; 2.7		15.2 +- 0.7; 4.2		15.2 +- 1.1	
12	230	6.1	17.0 +- 0.5; 2.5		13.9 +- 0.7; 4.1		15.2 +- 1.0	
13	245	1.8	17.0 +- 0.5; 2.6		13.9 +- 0.7; 4.1		14.9 +- 1.1	
14	223	1.8	16.0 +- 0.5; 2.4		12.9 +- 0.6; 4.0		14.4 +- 1.2	
15	204	2.0	16.1 +- 0.5; 2.4		13.0 +- 0.6; 4.0		14.2 +- 1.1	
16	181	1.8	16.8 +- 0.5; 2.5		13.7 +- 0.7; 4.0		14.6 +- 0.9	
17	157	1.9	15.8 +- 0.5; 2.4		12.7 +- 0.6; 3.9		14.6 +- 1.2	
18	137	1.6	16.5 +- 0.5; 2.5		13.4 +- 0.6; 4.0		14.4 +- 1.0	
19	115	1.2	16.1 +- 0.5; 2.4		13.0 +- 0.6; 4.0		14.5 +- 1.3	
20	92	1.1	16.2 +- 0.5; 2.4		13.0 +- 0.6; 4.0		15.1 +- 1.3	
21	229	20.0	16.9 +- 0.5; 2.5		13.8 +- 0.7; 4.1		14.6 +- 1.2	
22	229	20.0	16.3 +- 0.5; 2.4		13.1 +- 0.6; 4.0		14.3 +- 0.9	
23	229	20.0	16.4 +- 0.5; 2.5		13.3 +- 0.6; 4.0		14.6 +- 1.0	
24	196	8.0	15.2 +- 0.5; 2.3		12.0 +- 0.6; 3.9		14.3 +- 1.6	
25	168	7.2	16.0 +- 0.5; 2.4		12.9 +- 0.6; 4.0		14.1 +- 1.1	
26	152	0.6	17.3 +- 0.5; 2.6		14.3 +- 0.7; 4.1		15.7 +- 1.0	

Transit Dose = 4.1 +- 0.3; 2.7

FITZPATRICK/ NINE MI
For the period 961211-970414

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	13.5 +- 0.0	1
78.76 - 101.25 E	13.5 +- 0.7	2
101.26 - 123.75 ESE	12.8 +- 0.7	3
123.76 - 146.25 SE	13.3 +- 0.1	2
146.26 - 168.75 SSE	12.8 +- 1.2	4
168.76 - 191.25 S	13.8 +- 0.1	2
191.26 - 213.75 SSW	12.6 +- 0.5	3
213.76 - 236.25 SW	14.0 +- 1.2	3
236.26 - 258.75 WSW	13.9 +- 0.0	1
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	13.3 +- 0.6	9
2 - 5	13.2 +- 1.4	5
> 5	13.2 +- 0.9	7
Upwind Control	13.4 +- 0.4	3

NRC TLD DOSES FOR FITZPATRICK & NINE MILE PT AREA

73

Water
Highways
Roads
Railroads
Plant site

Legend

0 2 4

Miles

FORT CALHOUN

TLD Direct Radiation Environmental Monitoring

For the period 961209-970506 149 Days

Field Time: 92 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	358	2.0	26.0 +- 0.8; 3.9		18.1 +- 0.9; 5.0		18.7 +- 1.4	
2	351	4.6	26.1 +- 0.8; 3.9		18.3 +- 0.9; 5.0		19.4 +- 1.5	
3	30	2.5	26.2 +- 0.8; 3.9		18.3 +- 0.9; 5.0		19.3 +- 1.7	
4	27	4.6	26.6 +- 0.8; 4.0		18.7 +- 0.9; 5.1		19.9 +- 1.6	
5	53	1.9	26.2 +- 0.8; 3.9		18.3 +- 0.9; 5.0		18.9 +- 1.7	
6	37	3.9	26.4 +- 0.8; 4.0		18.5 +- 0.9; 5.1		19.7 +- 1.6	
7	76	2.3	27.1 +- 0.8; 4.1		19.3 +- 0.9; 5.1		20.2 +- 1.7	
8	59	5.2	25.4 +- 0.8; 3.8		17.5 +- 0.9; 4.9		19.0 +- 1.7	
9	100	2.3	24.8 +- 0.7; 3.7		16.9 +- 0.9; 4.9		17.6 +- 1.7	
10	88	5.6	27.5 +- 0.8; 4.1		19.6 +- 0.9; 5.2		19.9 +- 1.6	
11	122	2.3	28.0 +- 0.8; 4.2		20.0 +- 0.9; 5.2		19.8 +- 1.8	
12	105	5.7	28.1 +- 0.8; 4.2		20.2 +- 0.9; 5.2		19.2 +- 1.8	
13	145	1.9	26.6 +- 0.8; 4.0		18.7 +- 0.9; 5.1		20.1 +- 1.6	
14	128	5.5	26.5 +- 0.8; 4.0		18.6 +- 0.9; 5.1		19.6 +- 1.5	
15	157	1.9	29.0 +- 0.9; 4.3		21.0 +- 1.0; 5.4		20.7 +- 1.5	
16	150	4.9	26.0 +- 0.8; 3.9		18.1 +- 0.9; 5.0		20.1 +- 1.4	
17	173	0.5	25.5 +- 0.8; 3.8		17.6 +- 0.9; 5.0		19.5 +- 1.8	
18	173	5.3	27.3 +- 0.8; 4.1		19.4 +- 0.9; 5.2		20.6 +- 1.5	
19	212	2.5	30.3 +- 0.9; 4.5		22.3 +- 1.0; 5.5		22.7 +- 1.8	
20	204	5.3	29.0 +- 0.9; 4.4		21.1 +- 1.0; 5.4		21.1 +- 1.5	
21	233	2.0	27.4 +- 0.8; 4.1		19.5 +- 0.9; 5.2		21.1 +- 1.8	
22	224	4.6	28.2 +- 0.8; 4.2		20.3 +- 0.9; 5.3		21.5 +- 1.6	
23	239	0.6	27.8 +- 0.8; 4.2		19.9 +- 0.9; 5.2		20.2 +- 1.9	
24	243	6.9	26.4 +- 0.8; 4.0		18.6 +- 0.9; 5.1		18.1 +- 1.5	
25	269	3.3	30.1 +- 0.9; 4.5		22.1 +- 1.0; 5.5		21.7 +- 1.8	
26	262	5.9	28.9 +- 0.9; 4.3		21.0 +- 1.0; 5.3		22.1 +- 1.5	
27	350	3.0	25.1 +- 0.8; 3.8		17.3 +- 0.9; 4.9		18.0 +- 1.9	
28	292	5.0	27.9 +- 0.8; 4.2		20.0 +- 0.9; 5.2		20.2 +- 1.6	
29	311	2.4	27.4 +- 0.8; 4.1		19.5 +- 0.9; 5.2		20.4 +- 1.7	
30	310	5.5	28.2 +- 0.8; 4.2		20.3 +- 0.9; 5.3		20.8 +- 1.5	
31	340	2.3	25.2 +- 0.8; 3.8		17.4 +- 0.9; 4.9		19.2 +- 1.5	
32	338	5.3	28.6 +- 0.9; 4.3		20.7 +- 0.9; 5.3		20.1 +- 1.7	
33	182	0.5	28.2 +- 0.8; 4.2		20.3 +- 0.9; 5.3		20.3 +- 2.0	
35	127	2.2	26.5 +- 0.8; 4.0		18.6 +- 0.9; 5.1		18.7 +- 1.5	
39	150	5.0	27.4 +- 0.8; 4.1		19.5 +- 0.9; 5.2		18.8 +- 1.7	
40	73	9.5	28.8 +- 0.9; 4.3		20.9 +- 1.0; 5.3		20.2 +- 1.8	
43	29	8.0	26.8 +- 0.8; 4.0		18.9 +- 0.9; 5.1		18.5 +- 1.4	
44	65	3.5	24.6 +- 0.7; 3.7		16.7 +- 0.8; 4.9		17.7 +- 1.6	
45	182	4.2	28.6 +- 0.9; 4.3		20.6 +- 0.9; 5.3		20.5 +- 1.5	
47	298	4.5	25.4 +- 0.8; 3.8		17.5 +- 0.9; 4.9		19.3 +- 1.4	
48	13	14.0	27.2 +- 0.8; 4.1		19.3 +- 0.9; 5.1		19.6 +- 1.4	
49	207	18.0	27.8 +- 0.8; 4.2		19.9 +- 0.9; 5.2		20.7 +- 1.8	

Transit Dose = 7.5 +- 0.5; 3.3

FORT CALHOUN
For the period 961209-970506

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.9 +- 0.5	3
11.26 - 33.75 NNE	18.6 +- 0.3	3
33.76 - 56.25 NE	18.4 +- 0.1	2
56.26 - 78.75 ENE	18.6 +- 1.9	4
78.76 - 101.25 E	18.3 +- 1.9	2
101.26 - 123.75 ESE	20.1 +- 0.1	2
123.76 - 146.25 SE	18.6 +- 0.0	3
146.26 - 168.75 SSE	19.6 +- 1.4	3
168.76 - 191.25 S	19.5 +- 1.4	4
191.26 - 213.75 SSW	21.7 +- 0.9	2
213.76 - 236.25 SW	19.9 +- 0.5	2
236.26 - 258.75 WSW	19.2 +- 1.0	2
258.76 - 281.25 W	21.5 +- 0.8	2
281.26 - 303.75 WNW	18.8 +- 1.8	2
303.76 - 326.25 NW	19.9 +- 0.5	2
326.26 - 348.75 NNW	19.0 +- 2.3	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	19.2 +- 1.2	8
2 - 5	19.0 +- 1.6	20
> 5	19.7 +- 1.1	12
Upwind Control	19.6 +- 0.4	2

NRC TLD DOSES FOR FORT CALHOUN AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant..site

FORT ST. VRAIN

TLD Direct Radiation Environmental Monitoring

For the period 961209-970416 129 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	8 0.8	36.2 +- 1.1; 5.4	No Net Data	30.2 +- 2.1
2	2 3.3	37.4 +- 1.1; 5.6	No Net Data	29.7 +- 2.2
3	29 2.6	36.5 +- 1.1; 5.5	No Net Data	29.9 +- 2.0
4	17 5.4	36.4 +- 1.1; 5.5	No Net Data	29.8 +- 1.6
5	54 2.1	36.0 +- 1.1; 5.4	No Net Data	29.3 +- 2.2
6	48 4.8	37.3 +- 1.1; 5.6	No Net Data	30.9 +- 1.8
7	76 2.6	38.5 +- 1.2; 5.8	No Net Data	31.8 +- 2.0
8	58 4.2	38.0 +- 1.1; 5.7	No Net Data	30.5 +- 1.8
9	100 1.5	36.4 +- 1.1; 5.5	No Net Data	30.7 +- 1.7
10	87 4.5	36.1 +- 1.1; 5.4	No Net Data	29.3 +- 1.9
11	118 1.6	38.6 +- 1.2; 5.8	No Net Data	32.9 +- 1.8
12	104 3.0	39.5 +- 1.2; 5.9	No Net Data	32.4 +- 1.8
13	143 1.6	37.0 +- 1.1; 5.6	No Net Data	31.4 +- 2.0
14	128 4.5	38.2 +- 1.1; 5.7	No Net Data	30.6 +- 1.8
15	168 2.3	36.6 +- 1.1; 5.5	No Net Data	28.7 +- 2.0
16	148 4.6	34.7 +- 1.0; 5.2	No Net Data	28.7 +- 1.9
17	182 0.8	38.6 +- 1.2; 5.8	No Net Data	30.4 +- 2.2
18	175 4.8	37.5 +- 1.1; 5.6	No Net Data	30.7 +- 2.0
19	210 0.9	36.1 +- 1.1; 5.4	No Net Data	31.1 +- 1.6
20	200 2.9	39.2 +- 1.2; 5.9	No Net Data	30.7 +- 2.3
21	234 1.3	38.8 +- 1.2; 5.8	No Net Data	31.5 +- 2.0
22	216 3.3	36.4 +- 1.1; 5.5	No Net Data	29.2 +- 1.9
23	254 2.5	40.5 +- 1.2; 6.1	No Net Data	29.4 +- 2.0
24	244 3.8	36.4 +- 1.1; 5.5	No Net Data	29.6 +- 2.1
25	278 1.5	34.4 +- 1.0; 5.2	No Net Data	28.7 +- 1.9
26	263 5.4	37.2 +- 1.1; 5.6	No Net Data	30.2 +- 2.4
27	297 1.7	35.5 +- 1.1; 5.3	No Net Data	28.5 +- 1.9
28	284 5.6	35.5 +- 1.1; 5.3	No Net Data	29.6 +- 1.8
29	317 0.9	35.3 +- 1.1; 5.3	No Net Data	28.8 +- 2.0
30	305 4.2	32.8 +- 1.0; 4.9	No Net Data	26.9 +- 1.9
31	338 1.4	36.6 +- 1.1; 5.5	No Net Data	29.0 +- 2.1
32	330 5.0	Missing Dosimeter	No Net Data	26.5 +- 2.1
33	267 6.5	32.6 +- 1.0; 4.9	No Net Data	28.4 +- 2.6
34	130 3.7	36.1 +- 1.1; 5.4	No Net Data	28.8 +- 2.0
35	270 0.1	36.0 +- 1.1; 5.4	No Net Data	28.5 +- 2.0
38	345 6.7	37.0 +- 1.1; 5.5	No Net Data	30.8 +- 1.9
39	10 6.0	35.2 +- 1.1; 5.3	No Net Data	28.3 +- 2.1
40	63 6.0	35.1 +- 1.1; 5.3	No Net Data	28.4 +- 2.1
41	165 12.0	37.8 +- 1.1; 5.7	No Net Data	31.9 +- 1.7
42	248 13.0	40.1 +- 1.2; 6.0	No Net Data	33.1 +- 2.5
45	198 11.0	37.8 +- 1.1; 5.7	No Net Data	30.4 +- 2.0
46	39 16.0	35.6 +- 1.1; 5.3	No Net Data	27.6 +- 1.9
47	357 17.0	34.2 +- 1.0; 5.1	No Net Data	26.8 +- 1.8
48	171 18.0	38.4 +- 1.2; 5.8	No Net Data	30.8 +- 2.1
49	360 0.5	38.1 +- 1.1; 5.7	No Net Data	32.2 +- 2.0

No Transit Dose Calculated. (Transit Control Is Missing.)

FORT ST. VRAIN
For the period 961209-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	25.3 +- 0.8	3
11.26 - 33.75 NNE	25.4 +- 0.1	2
33.76 - 56.25 NE	25.3 +- 0.6	3
56.26 - 78.75 ENE	26.0 +- 1.3	3
78.76 - 101.25 E	25.3 +- 0.2	2
101.26 - 123.75 ESE	27.2 +- 0.4	2
123.76 - 146.25 SE	25.9 +- 0.8	3
146.26 - 168.75 SSE	25.3 +- 1.1	3
168.76 - 191.25 S	26.6 +- 0.6	2
191.26 - 213.75 SSW	26.3 +- 1.1	3
213.76 - 236.25 SW	26.2 +- 1.2	2
236.26 - 258.75 WSW	27.2 +- 1.6	3
258.76 - 281.25 W	24.4 +- 1.4	4
281.26 - 303.75 WNW	24.8 +- 0.0	2
303.76 - 326.25 NW	23.8 +- 1.2	2
326.26 - 348.75 NNW	25.7 +- 0.2	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	25.6 +- 1.0	12
2 - 5	25.9 +- 1.3	18
> 5	25.4 +- 1.4	11
Upwind Control	25.7 +- 1.7	3

NRC TLD DOSES FOR FORT ST. VRAIN AREA

Miles

0 2 4

Legend

Water

Highways

--- Railroads

--- Roads

Plant..site

TLD..data

GINNA

TLD Direct Radiation Environmental Monitoring

For the period 961211-970414 125 Days

Field Time: 85 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	95 1.7	17.1 +- 0.5; 2.6	13.3 +- 0.7; 4.1	14.7 +- 0.9
2	108 1.1	16.2 +- 0.5; 2.4	12.4 +- 0.6; 4.0	14.3 +- 1.1
3	142 1.7	16.5 +- 0.5; 2.5	12.7 +- 0.6; 4.0	14.2 +- 1.0
4	154 1.5	16.7 +- 0.5; 2.5	12.9 +- 0.6; 4.0	14.8 +- 1.1
5	174 1.4	Missing Dosimeter	No Net Data	15.1 +- 1.3
6	212 1.6	16.3 +- 0.5; 2.4	12.5 +- 0.6; 4.0	13.8 +- 1.1
7	244 0.9	16.3 +- 0.5; 2.4	12.5 +- 0.6; 4.0	13.8 +- 1.0
8	230 0.6	16.8 +- 0.5; 2.5	13.0 +- 0.6; 4.0	14.8 +- 1.7
10	266 1.5	17.1 +- 0.5; 2.6	13.3 +- 0.7; 4.0	14.4 +- 1.2
11	264 4.6	16.7 +- 0.5; 2.5	12.9 +- 0.6; 4.0	15.8 +- 1.0
12	245 3.8	17.2 +- 0.5; 2.6	13.5 +- 0.7; 4.1	14.2 +- 1.2
13	235 4.2	16.3 +- 0.5; 2.4	12.4 +- 0.6; 4.0	13.6 +- 1.2
14	200 3.8	16.4 +- 0.5; 2.5	12.6 +- 0.6; 4.0	13.3 +- 1.3
15	178 3.4	17.6 +- 0.5; 2.6	13.9 +- 0.7; 4.1	14.8 +- 1.4
16	160 3.7	15.8 +- 0.5; 2.4	11.9 +- 0.6; 3.9	13.4 +- 1.4
17	134 3.8	15.4 +- 0.5; 2.3	11.5 +- 0.6; 3.9	13.4 +- 1.5
18	115 4.3	16.7 +- 0.5; 2.5	12.9 +- 0.6; 4.0	14.4 +- 1.5
19	88 4.0	15.9 +- 0.5; 2.4	12.0 +- 0.6; 3.9	13.3 +- 1.4
20	90 6.2	15.7 +- 0.5; 2.3	11.8 +- 0.6; 3.9	13.1 +- 1.1
21	123 7.6	14.9 +- 0.4; 2.2	11.0 +- 0.6; 3.8	13.0 +- 1.3
22	151 11.0	16.2 +- 0.5; 2.4	12.4 +- 0.6; 4.0	13.5 +- 1.1
23	105 12.0	16.3 +- 0.5; 2.4	12.4 +- 0.6; 4.0	14.0 +- 1.2
24	212 14.0	19.7 +- 0.6; 3.0	16.1 +- 0.7; 4.3	18.1 +- 1.0
25	223 13.0	15.6 +- 0.5; 2.3	11.7 +- 0.6; 3.9	13.8 +- 1.4
26	242 16.0	Missing Dosimeter	No Net Data	15.7 +- 1.0
27	254 14.0	17.7 +- 0.5; 2.7	13.9 +- 0.7; 4.1	15.4 +- 1.3
28	234 6.9	16.8 +- 0.5; 2.5	13.0 +- 0.6; 4.0	14.1 +- 0.9
29	185 0.3	18.0 +- 0.5; 2.7	14.3 +- 0.7; 4.1	15.5 +- 1.0
30	264 15.0	15.6 +- 0.5; 2.3	11.7 +- 0.6; 3.9	13.5 +- 1.3

Transit Dose = 4.5 +- 0.3; 2.8

GINNA

For the period 961211-970414

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	12.4 +- 0.8	3
101.26 - 123.75 ESE	12.2 +- 0.8	4
123.76 - 146.25 SE	12.1 +- 0.9	2
146.26 - 168.75 SSE	12.4 +- 0.5	3
168.76 - 191.25 S	14.1 +- 0.3	2
191.26 - 213.75 SSW	13.7 +- 2.1	3
213.76 - 236.25 SW	12.6 +- 0.6	4
236.26 - 258.75 WSW	13.0 +- 0.7	2
258.76 - 281.25 W	13.1 +- 0.2	2
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	13.0 +- 0.6	9
2 - 5	12.6 +- 0.8	9
> 5	12.6 +- 1.7	7
Upwind Control	12.8 +- 1.6	2

NRC TLD DOSES FOR GINNA AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

GRAND GULF

TLD Direct Radiation Environmental Monitoring

For the period 961211-970414 125 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	337	2.0	Missing Dosimeter	No Net Data	15.9 +- 1.9
2	351	1.6	17.3 +- 0.5; 2.6	14.9 +- 0.6; 3.8	15.3 +- 1.0
3	20	1.5	19.2 +- 0.6; 2.9	16.7 +- 0.6; 4.0	17.6 +- 1.3
4	51	2.3	19.9 +- 0.6; 3.0	17.4 +- 0.6; 4.0	17.0 +- 1.2
5	68	2.7	20.9 +- 0.6; 3.1	18.4 +- 0.7; 4.1	17.8 +- 1.4
6	47	4.1	18.1 +- 0.5; 2.7	15.6 +- 0.6; 3.8	16.0 +- 1.3
7	68	4.9	20.5 +- 0.6; 3.1	18.0 +- 0.7; 4.1	19.1 +- 1.2
8	91	3.2	21.0 +- 0.6; 3.2	18.5 +- 0.7; 4.2	19.1 +- 1.2
9	81	1.0	20.2 +- 0.6; 3.0	17.7 +- 0.7; 4.1	17.8 +- 1.0
10	109	0.6	20.5 +- 0.6; 3.1	18.0 +- 0.7; 4.1	19.1 +- 1.1
11	139	0.8	18.6 +- 0.6; 2.8	16.1 +- 0.6; 3.9	19.3 +- 1.1
12	185	1.6	20.8 +- 0.6; 3.1	18.2 +- 0.7; 4.1	18.2 +- 0.9
13	207	1.9	21.2 +- 0.6; 3.2	18.7 +- 0.7; 4.2	19.2 +- 0.8
14	247	1.5	Missing Dosimeter	No Net Data	17.2 +- 2.5
15	130	4.2	19.7 +- 0.6; 3.0	17.2 +- 0.6; 4.0	18.5 +- 1.0
16	122	4.8	19.7 +- 0.6; 3.0	17.2 +- 0.6; 4.0	18.3 +- 1.2
17	135	5.3	19.8 +- 0.6; 3.0	17.3 +- 0.6; 4.0	17.2 +- 0.9
18	147	4.3	17.2 +- 0.5; 2.6	14.7 +- 0.6; 3.8	15.5 +- 0.9
19	224	6.8	19.2 +- 0.6; 2.9	16.7 +- 0.6; 4.0	18.7 +- 1.0
20	172	3.6	19.1 +- 0.6; 2.9	16.6 +- 0.6; 3.9	16.7 +- 0.8
21	291	12.0	19.1 +- 0.6; 2.9	16.6 +- 0.6; 3.9	17.1 +- 1.0
22	332	8.0	22.2 +- 0.7; 3.3	19.6 +- 0.7; 4.3	19.3 +- 1.1
23	310	7.9	Missing Dosimeter	No Net Data	15.3 +- 2.7
24	281	7.0	18.0 +- 0.5; 2.7	15.5 +- 0.6; 3.8	16.6 +- 1.0
25	291	4.8	19.8 +- 0.6; 3.0	17.3 +- 0.6; 4.0	18.2 +- 1.0
26	248	9.5	19.1 +- 0.6; 2.9	16.6 +- 0.6; 3.9	16.9 +- 1.0
27	239	13.0	19.0 +- 0.6; 2.9	16.5 +- 0.6; 3.9	16.3 +- 1.1
29	90	0.9	19.4 +- 0.6; 2.9	16.9 +- 0.6; 4.0	17.8 +- 0.9
30	67	51.0	16.1 +- 0.5; 2.4	13.6 +- 0.6; 3.6	13.9 +- 1.4
31	67	51.0	16.2 +- 0.5; 2.4	13.8 +- 0.6; 3.7	14.7 +- 1.3
32	67	51.0	16.2 +- 0.5; 2.4	13.8 +- 0.6; 3.7	14.0 +- 1.4
33	206	4.8	20.1 +- 0.6; 3.0	17.6 +- 0.7; 4.1	18.4 +- 1.0

Transit Dose = 2.1 +- 0.3; 2.8

GRAND GULF
For the period 961211-970414

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	14.9 +- 0.0	1
11.26 - 33.75 NNE	16.7 +- 0.0	1
33.76 - 56.25 NE	16.5 +- 1.2	2
56.26 - 78.75 ENE	18.2 +- 0.3	2
78.76 - 101.25 E	17.7 +- 0.8	3
101.26 - 123.75 ESE	17.6 +- 0.6	2
123.76 - 146.25 SE	16.9 +- 0.7	3
146.26 - 168.75 SSE	14.7 +- 0.0	1
168.76 - 191.25 S	17.4 +- 1.1	2
191.26 - 213.75 SSW	18.1 +- 0.7	2
213.76 - 236.25 SW	16.7 +- 0.0	1
236.26 - 258.75 WSW	16.5 +- 0.0	2
258.76 - 281.25 W	15.5 +- 0.0	1
281.26 - 303.75 WNW	16.9 +- 0.5	2
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	19.6 +- 0.0	1

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.1 +- 1.3	8
2 - 5	17.1 +- 1.1	11
> 5	17.0 +- 1.3	7
Upwind Control	13.7 +- 0.1	3

NRC TLD DOSES FOR GRAND GULF AREA

Miles

Legend

Water

--- Railroads

Plant site

— Highways

--- Roads

HADDAM NECK

TLD Direct Radiation Environmental Monitoring

For the period 961211-970423 134 Days

Field Time: 83 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
2	17	2.6	22.2 +- 0.7; 3.3		21.4 +- 0.8; 4.6		19.0 +- 1.3	
3	45	1.9	21.6 +- 0.6; 3.2		20.7 +- 0.8; 4.5		19.2 +- 1.3	
4	67	2.3	20.6 +- 0.6; 3.1		19.6 +- 0.7; 4.4		18.0 +- 1.3	
5	93	1.6	19.7 +- 0.6; 3.0		18.6 +- 0.7; 4.3		16.3 +- 1.1	
6	115	2.3	18.8 +- 0.6; 2.8		17.6 +- 0.7; 4.2		15.9 +- 1.1	
7	143	1.9	21.7 +- 0.7; 3.3		20.8 +- 0.8; 4.5		18.0 +- 1.1	
8	165	0.9	19.9 +- 0.6; 3.0		18.8 +- 0.7; 4.3		16.7 +- 1.1	
9	174	1.3	22.4 +- 0.7; 3.4		21.6 +- 0.8; 4.6		18.6 +- 1.3	
10	195	0.7	19.5 +- 0.6; 2.9		18.4 +- 0.7; 4.3		16.5 +- 1.2	
12	241	0.8	21.5 +- 0.6; 3.2		20.5 +- 0.8; 4.5		17.4 +- 1.1	
13	263	0.8	19.8 +- 0.6; 3.0		18.7 +- 0.7; 4.3		16.3 +- 1.2	
14	290	1.9	21.6 +- 0.6; 3.2		20.6 +- 0.8; 4.5		18.1 +- 1.1	
15	311	1.5	19.3 +- 0.6; 2.9		18.2 +- 0.7; 4.2		15.7 +- 1.0	
16	341	1.3	19.7 +- 0.6; 3.0		18.6 +- 0.7; 4.3		16.8 +- 1.1	
17	360	2.3	20.1 +- 0.6; 3.0		19.0 +- 0.7; 4.3		19.4 +- 1.4	
18	222	2.5	19.2 +- 0.6; 2.9		18.1 +- 0.7; 4.2		16.3 +- 1.0	
19	269	3.0	18.9 +- 0.6; 2.8		17.8 +- 0.7; 4.2		16.0 +- 1.3	
20	66	3.2	20.1 +- 0.6; 3.0		19.1 +- 0.7; 4.3		16.8 +- 1.1	
21	91	2.8	21.5 +- 0.6; 3.2		20.5 +- 0.8; 4.5		18.3 +- 1.2	
22	112	3.2	21.8 +- 0.7; 3.3		20.9 +- 0.8; 4.5		17.3 +- 1.3	
23	137	2.9	20.7 +- 0.6; 3.1		19.7 +- 0.7; 4.4		17.1 +- 1.3	
24	155	7.1	19.3 +- 0.6; 2.9		18.2 +- 0.7; 4.2		15.9 +- 1.1	
25 *	175	5.7	21.0 +- 0.6; 3.2		20.0 +- 0.7; 4.4		16.4 +- 1.1	
26	196	2.5	19.6 +- 0.6; 2.9		18.5 +- 0.7; 4.3		15.6 +- 1.1	
27	225	1.1	Damaged Dosimeter		No Net Data		17.6 +- 1.2	
28	250	3.5	21.9 +- 0.7; 3.3		21.0 +- 0.8; 4.6		17.6 +- 1.9	
29	340	20.0	Missing Dosimeter		No Net Data		19.0 +- 2.4	
30	286	3.2	20.3 +- 0.6; 3.0		19.2 +- 0.7; 4.3		16.3 +- 1.0	
31	322	2.7	20.8 +- 0.6; 3.1		19.8 +- 0.7; 4.4		17.3 +- 1.2	
32	327	2.9	22.5 +- 0.7; 3.4		21.7 +- 0.8; 4.6		19.4 +- 1.0	
33	359	6.4	20.2 +- 0.6; 3.0		19.1 +- 0.7; 4.3		16.2 +- 1.1	
35	54	10.0	Missing Dosimeter		No Net Data		17.2 +- 1.4	
36	72	8.8	22.2 +- 0.7; 3.3		21.3 +- 0.8; 4.6		19.1 +- 1.4	
37	149	6.8	19.3 +- 0.6; 2.9		18.2 +- 0.7; 4.2		15.6 +- 1.0	
38 *	158	5.9	19.7 +- 0.6; 2.9		18.6 +- 0.7; 4.3		15.3 +- 1.1	
39	267	8.8	20.2 +- 0.6; 3.0		19.1 +- 0.7; 4.3		16.6 +- 1.2	
40	303	9.1	20.6 +- 0.6; 3.1		19.6 +- 0.7; 4.4		18.0 +- 1.1	
41	313	9.6	20.2 +- 0.6; 3.0		19.1 +- 0.7; 4.3		16.6 +- 1.1	
42	320	13.0	21.8 +- 0.7; 3.3		20.9 +- 0.8; 4.5		18.4 +- 1.2	
43	324	18.0	19.2 +- 0.6; 2.9		18.0 +- 0.7; 4.2		16.1 +- 1.0	
44	328	15.0	22.6 +- 0.7; 3.4		21.8 +- 0.8; 4.6		17.9 +- 1.5	
45	343	18.0	21.4 +- 0.6; 3.2		20.4 +- 0.8; 4.5		18.7 +- 1.4	
46	144	5.0	21.2 +- 0.6; 3.2		20.3 +- 0.8; 4.5		18.1 +- 1.3	
49	340	20.0	Missing Dosimeter		No Net Data		18.3 +- 1.3	

Transit Dose = 2.5 +- 0.3; 2.6

* The results for the indicated locations were outside the expected range. Refer to page 4 of this report for more information.

HADDAM NECK

For the period 961211-970423

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	19.1 +- 0.1	2
11.26 - 33.75 NNE	21.4 +- 0.0	1
33.76 - 56.25 NE	20.7 +- 0.0	1
56.26 - 78.75 ENE	20.0 +- 1.1	3
78.76 - 101.25 E	19.6 +- 1.4	2
101.26 - 123.75 ESE	19.3 +- 2.3	2
123.76 - 146.25 SE	20.3 +- 0.6	3
146.26 - 168.75 SSE	18.5 +- 0.3	4
168.76 - 191.25 S	20.8 +- 1.1	2
191.26 - 213.75 SSW	18.4 +- 0.1	2
213.76 - 236.25 SW	18.1 +- 0.0	1
236.26 - 258.75 WSW	20.8 +- 0.4	2
258.76 - 281.25 W	18.5 +- 0.7	3
281.26 - 303.75 WNW	19.8 +- 0.7	3
303.76 - 326.25 NW	19.2 +- 1.2	5
326.26 - 348.75 NNW	20.6 +- 1.5	4

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	19.6 +- 1.2	11
2 - 5	19.6 +- 1.3	16
> 5	19.6 +- 1.2	13
Upwind Control	No Data +- No Data	0

NRC TLD DOSES FOR HADDAM NECK AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

HARRIS

TLD Direct Radiation Environmental Monitoring

For the period 961210-970415 127 Days

Field Time: 95 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist		Exposure (mR)		(mR/Std. Qtr.)		Net Exp Rate	
	(Deg)/(Mi)		+-Rdm; Tot.		+-Rdm; Tot.		+-1 Std Dev	
1	36	2.6	18.4	+- 0.6; 2.8	13.8	+- 0.6; 3.9	16.4	+- 2.0
2	25	3.2	17.8	+- 0.5; 2.7	13.3	+- 0.6; 3.8	14.6	+- 1.6
3	5	2.5	17.7	+- 0.5; 2.7	13.2	+- 0.6; 3.8	16.4	+- 1.7
4	27	1.5	18.6	+- 0.6; 2.8	14.0	+- 0.6; 3.9	16.8	+- 2.4
5	36	0.9	16.2	+- 0.5; 2.4	11.8	+- 0.6; 3.7	13.8	+- 1.6
6	68	0.8	14.5	+- 0.4; 2.2	10.2	+- 0.5; 3.6	12.6	+- 1.5
7	98	0.7	16.9	+- 0.5; 2.5	12.4	+- 0.6; 3.8	15.0	+- 1.5
8	232	0.7	16.4	+- 0.5; 2.5	11.9	+- 0.6; 3.7	13.8	+- 1.4
9	190	0.8	15.5	+- 0.5; 2.3	11.1	+- 0.6; 3.6	12.4	+- 1.4
10	158	0.7	15.9	+- 0.5; 2.4	11.5	+- 0.6; 3.7	13.4	+- 1.8
11	42	4.7	19.4	+- 0.6; 2.9	14.8	+- 0.6; 4.0	18.7	+- 2.3
12	40	8.6	18.0	+- 0.5; 2.7	13.4	+- 0.6; 3.9	16.3	+- 1.6
13	298	13.0	20.8	+- 0.6; 3.1	16.1	+- 0.7; 4.1	14.3	+- 2.1
14	298	12.0	Damaged Dosimeter		No Net Data		14.0	+- 1.7
15	298	11.0	15.1	+- 0.5; 2.3	10.7	+- 0.5; 3.6	12.7	+- 1.6
16	332	4.8	16.3	+- 0.5; 2.4	11.8	+- 0.6; 3.7	14.3	+- 2.1
17	291	4.5	13.3	+- 0.4; 2.0	9.0	+- 0.5; 3.5	11.6	+- 2.2
18	270	5.1	15.1	+- 0.5; 2.3	10.8	+- 0.5; 3.6	13.7	+- 2.1
19	240	5.1	18.2	+- 0.5; 2.7	13.7	+- 0.6; 3.9	16.5	+- 2.0
20	227	4.8	15.3	+- 0.5; 2.3	10.9	+- 0.5; 3.6	12.5	+- 1.4
21	208	4.8	15.2	+- 0.5; 2.3	10.8	+- 0.5; 3.6	12.2	+- 1.5
22	190	4.6	16.0	+- 0.5; 2.4	11.6	+- 0.6; 3.7	14.0	+- 1.6
23	151	4.8	15.9	+- 0.5; 2.4	11.5	+- 0.6; 3.7	13.7	+- 2.1
24	132	4.7	16.6	+- 0.5; 2.5	12.1	+- 0.6; 3.7	13.4	+- 1.8
25	112	5.0	17.6	+- 0.5; 2.6	13.1	+- 0.6; 3.8	15.4	+- 2.0
26	92	4.6	14.9	+- 0.4; 2.2	10.6	+- 0.5; 3.6	12.4	+- 1.6
27	115	2.8	23.0	+- 0.7; 3.5	18.2	+- 0.7; 4.4	13.5	+- 1.7
28	135	2.3	Missing Dosimeter		No Net Data		11.3	+- 1.7
29	164	2.2	Missing Dosimeter		No Net Data		14.3	+- 2.2
30	49	2.2	16.5	+- 0.5; 2.5	12.0	+- 0.6; 3.7	13.8	+- 1.7
31	276	1.8	15.5	+- 0.5; 2.3	11.1	+- 0.6; 3.6	13.7	+- 1.7
32	292	1.7	17.9	+- 0.5; 2.7	13.4	+- 0.6; 3.9	17.0	+- 1.8
33	314	1.4	17.7	+- 0.5; 2.7	13.2	+- 0.6; 3.8	15.9	+- 1.8
34	329	1.3	17.3	+- 0.5; 2.6	12.8	+- 0.6; 3.8	16.2	+- 2.0
35	350	4.5	18.2	+- 0.5; 2.7	13.6	+- 0.6; 3.9	15.6	+- 1.6
36	338	4.4	15.2	+- 0.5; 2.3	10.8	+- 0.5; 3.6	15.7	+- 3.3
37	16	4.9	15.1	+- 0.5; 2.3	10.7	+- 0.5; 3.6	14.7	+- 2.9
38	68	4.8	15.1	+- 0.5; 2.3	10.7	+- 0.5; 3.6	12.1	+- 1.5
39	80	6.9	18.0	+- 0.5; 2.7	13.5	+- 0.6; 3.9	14.4	+- 1.3
40	80	6.9	15.1	+- 0.5; 2.3	10.8	+- 0.5; 3.6	13.4	+- 2.0
41	118	9.7	21.1	+- 0.6; 3.2	16.4	+- 0.7; 4.2	18.8	+- 1.7
42	260	1.1	15.9	+- 0.5; 2.4	11.5	+- 0.6; 3.7	13.7	+- 1.7
43	333	1.7	16.5	+- 0.5; 2.5	12.0	+- 0.6; 3.7	15.5	+- 2.4
44	50	24.0	21.8	+- 0.7; 3.3	17.1	+- 0.7; 4.2	20.0	+- 2.1

Transit Dose = 3.8 +- 0.3; 3.1

HARRIS

For the period 961210-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	13.4 +- 0.3	2
11.26 - 33.75 NNE	12.7 +- 1.7	3
33.76 - 56.25 NE	13.8 +- 2.0	6
56.26 - 78.75 ENE	10.4 +- 0.4	2
78.76 - 101.25 E	11.8 +- 1.4	4
101.26 - 123.75 ESE	15.9 +- 2.6	3
123.76 - 146.25 SE	12.1 +- 0.0	1
146.26 - 168.75 SSE	11.5 +- 0.0	2
168.76 - 191.25 S	11.3 +- 0.4	2
191.26 - 213.75 SSW	10.8 +- 0.0	1
213.76 - 236.25 SW	11.4 +- 0.7	2
236.26 - 258.75 WSW	13.7 +- 0.0	1
258.76 - 281.25 W	11.1 +- 0.4	3
281.26 - 303.75 WNW	11.2 +- 3.1	2
303.76 - 326.25 NW	13.2 +- 0.0	1
326.26 - 348.75 NNW	11.9 +- 0.8	4

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	12.1 +- 1.1	13
2 - 5	12.2 +- 2.0	19
> 5	13.7 +- 2.5	7
Upwind Control	13.4 +- 3.8	2

NRC TLD DOSES FOR HARRIS AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

HATCH

TLD Direct Radiation Environmental Monitoring

For the period 961211-970421 132 Days

Field Time: 87 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	342	23.0	18.0 +- 0.5; 2.7		18.1 +- 0.6; 3.9		16.4 +- 1.8	
2	359	7.7	16.7 +- 0.5; 2.5		16.8 +- 0.6; 3.7		14.3 +- 1.8	
3	354	4.5	16.6 +- 0.5; 2.5		16.7 +- 0.6; 3.7		14.5 +- 1.9	
4	336	2.9	15.3 +- 0.5; 2.3		15.4 +- 0.5; 3.6		13.1 +- 1.9	
5	309	4.6	16.1 +- 0.5; 2.4		16.2 +- 0.6; 3.7		13.6 +- 1.9	
6	297	5.6	18.4 +- 0.6; 2.8		18.5 +- 0.6; 3.9		15.7 +- 1.9	
7	24	2.8	16.6 +- 0.5; 2.5		16.7 +- 0.6; 3.7		14.0 +- 2.1	
8	49	2.0	16.4 +- 0.5; 2.5		16.5 +- 0.6; 3.7		14.0 +- 1.8	
9	49	10.0	15.5 +- 0.5; 2.3		15.6 +- 0.5; 3.6		13.5 +- 1.8	
10	28	4.8	16.4 +- 0.5; 2.5		16.5 +- 0.6; 3.7		14.0 +- 1.7	
11	67	5.0	15.8 +- 0.5; 2.4		15.9 +- 0.5; 3.6		14.3 +- 1.7	
12	50	5.1	20.2 +- 0.6; 3.0		20.4 +- 0.7; 4.1		18.1 +- 2.0	
13	353	2.0	14.7 +- 0.4; 2.2		14.8 +- 0.5; 3.5		12.6 +- 1.5	
14	341	1.6	17.0 +- 0.5; 2.5		17.1 +- 0.6; 3.7		14.6 +- 1.9	
15	147	10.0	14.8 +- 0.4; 2.2		14.8 +- 0.5; 3.5		12.9 +- 1.7	
16	232	0.9	15.2 +- 0.5; 2.3		15.3 +- 0.5; 3.6		13.1 +- 1.7	
17	205	1.6	16.4 +- 0.5; 2.5		16.5 +- 0.6; 3.7		14.4 +- 1.7	
18	192	4.2	14.4 +- 0.4; 2.2		14.4 +- 0.5; 3.5		11.4 +- 1.6	
19	184	4.2	14.4 +- 0.4; 2.2		14.4 +- 0.5; 3.5		11.5 +- 1.9	
20	165	4.6	14.3 +- 0.4; 2.2		14.4 +- 0.5; 3.5		12.2 +- 1.8	
21	135	4.4	15.0 +- 0.4; 2.2		15.0 +- 0.5; 3.5		12.7 +- 1.6	
22	120	4.1	15.5 +- 0.5; 2.3		15.5 +- 0.5; 3.6		13.7 +- 1.8	
23	107	3.7	14.8 +- 0.4; 2.2		14.8 +- 0.5; 3.5		13.1 +- 1.9	
24	123	14.0	14.6 +- 0.4; 2.2		14.7 +- 0.5; 3.5		12.2 +- 1.6	
25	114	12.0	15.5 +- 0.5; 2.3		15.6 +- 0.5; 3.6		13.4 +- 1.6	
26	142	1.8	15.8 +- 0.5; 2.4		15.8 +- 0.5; 3.6		14.2 +- 1.7	
27	157	2.2	14.8 +- 0.4; 2.2		14.8 +- 0.5; 3.5		13.2 +- 1.7	
28	171	0.9	16.4 +- 0.5; 2.5		16.5 +- 0.6; 3.7		14.5 +- 1.7	
29	253	1.0	16.0 +- 0.5; 2.4		16.1 +- 0.5; 3.6		13.3 +- 1.7	
30	270	1.0	17.1 +- 0.5; 2.6		17.2 +- 0.6; 3.8		15.2 +- 2.5	
31	292	1.1	16.2 +- 0.5; 2.4		16.3 +- 0.6; 3.7		13.6 +- 1.9	
32	268	4.2	15.2 +- 0.5; 2.3		15.3 +- 0.5; 3.6		13.6 +- 1.5	
33	248	4.3	15.1 +- 0.5; 2.3		15.1 +- 0.5; 3.5		12.1 +- 1.8	
34	216	4.1	13.6 +- 0.4; 2.0		13.5 +- 0.5; 3.4		11.6 +- 1.9	
35	234	12.0	17.4 +- 0.5; 2.6		17.5 +- 0.6; 3.8		14.1 +- 2.1	
36	182	10.0	12.8 +- 0.4; 1.9		12.7 +- 0.5; 3.3		12.6 +- 2.7	
37	177	10.0	14.0 +- 0.4; 2.1		14.0 +- 0.5; 3.4		12.6 +- 1.7	
38	323	12.0	17.4 +- 0.5; 2.6		17.5 +- 0.6; 3.8		15.0 +- 1.7	
39	321	13.0	17.2 +- 0.5; 2.6		17.3 +- 0.6; 3.8		15.2 +- 1.9	
40	323	12.0	17.2 +- 0.5; 2.6		17.4 +- 0.6; 3.8		15.2 +- 2.0	

Transit Dose = 0.5 +- 0.2; 2.6

HATCH

For the period 961211-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.1 +- 1.1	3
11.26 - 33.75 NNE	16.6 +- 0.1	2
33.76 - 56.25 NE	17.5 +- 2.6	3
56.26 - 78.75 ENE	15.9 +- 0.0	1
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	15.2 +- 0.5	4
123.76 - 146.25 SE	15.4 +- 0.6	2
146.26 - 168.75 SSE	14.6 +- 0.3	3
168.76 - 191.25 S	14.4 +- 1.6	4
191.26 - 213.75 SSW	15.4 +- 1.4	2
213.76 - 236.25 SW	15.4 +- 2.0	3
236.26 - 258.75 WSW	15.6 +- 0.6	2
258.76 - 281.25 W	16.2 +- 1.3	2
281.26 - 303.75 WNW	17.4 +- 1.6	2
303.76 - 326.25 NW	16.2 +- 0.0	1
326.26 - 348.75 NNW	16.9 +- 1.4	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.2 +- 0.7	10
2 - 5	15.3 +- 0.9	16
> 5	16.2 +- 2.3	11
Upwind Control	17.4 +- 0.1	3

NRC TLD DOSES FOR HATCH AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

INDIAN POINT

TLD Direct Radiation Environmental Monitoring

For the period 961211-970414 125 Days

Field Time: 73 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	52	1.4	15.2	+- 0.5; 2.3	11.6	+- 0.7; 4.3	12.3	+- 1.2
2	53	1.0	16.6	+- 0.5; 2.5	13.2	+- 0.8; 4.5	14.1	+- 1.2
3	61	1.5	17.9	+- 0.5; 2.7	14.9	+- 0.8; 4.6	15.0	+- 1.0
4	89	1.2	18.1	+- 0.5; 2.7	15.2	+- 0.8; 4.7	15.4	+- 1.2
5	107	0.9	17.8	+- 0.5; 2.7	14.8	+- 0.8; 4.6	15.2	+- 1.2
6	90	0.5	17.7	+- 0.5; 2.6	14.6	+- 0.8; 4.6	15.4	+- 1.2
7	133	0.8	17.2	+- 0.5; 2.6	14.1	+- 0.8; 4.5	14.7	+- 1.2
8	158	0.8	18.6	+- 0.6; 2.8	15.8	+- 0.8; 4.7	15.9	+- 1.1
9	188	1.2	18.8	+- 0.6; 2.8	16.0	+- 0.8; 4.8	16.1	+- 1.2
10	206	0.9	16.8	+- 0.5; 2.5	13.5	+- 0.8; 4.5	14.9	+- 1.4
11	170	1.1	16.3	+- 0.5; 2.4	12.8	+- 0.7; 4.4	13.5	+- 1.0
12	155	2.3	18.1	+- 0.5; 2.7	15.1	+- 0.8; 4.7	14.6	+- 1.1
13	136	3.2	17.6	+- 0.5; 2.6	14.6	+- 0.8; 4.6	15.0	+- 1.1
14	107	3.1	16.7	+- 0.5; 2.5	13.5	+- 0.8; 4.5	13.7	+- 1.1
15	94	3.8	16.6	+- 0.5; 2.5	13.3	+- 0.8; 4.5	14.4	+- 1.0
16	142	5.7	17.5	+- 0.5; 2.6	14.4	+- 0.8; 4.6	16.0	+- 1.0
18	147	9.1	19.8	+- 0.6; 3.0	17.2	+- 0.9; 4.9	16.2	+- 1.0
19	137	12.0	16.5	+- 0.5; 2.5	13.2	+- 0.8; 4.5	14.1	+- 1.4
20	129	12.0	16.8	+- 0.5; 2.5	13.5	+- 0.8; 4.5	14.5	+- 1.2
22	74	7.5	18.7	+- 0.6; 2.8	15.9	+- 0.8; 4.7	15.2	+- 1.1
23	5	100.0	19.1	+- 0.6; 2.9	16.3	+- 0.8; 4.8	16.8	+- 1.4
24	5	100.0	18.7	+- 0.6; 2.8	15.9	+- 0.8; 4.7	16.6	+- 1.3
25	65	4.1	16.9	+- 0.5; 2.5	13.7	+- 0.8; 4.5	14.3	+- 1.3
26	40	4.0	19.8	+- 0.6; 3.0	17.2	+- 0.9; 4.9	17.7	+- 1.2
27	25	5.3	19.4	+- 0.6; 2.9	16.8	+- 0.8; 4.8	16.5	+- 1.2
28	24	2.9	18.3	+- 0.6; 2.8	15.4	+- 0.8; 4.7	15.3	+- 1.2
29	22	2.1	19.1	+- 0.6; 2.9	16.4	+- 0.8; 4.8	15.4	+- 1.2
30	8	1.9	19.6	+- 0.6; 2.9	16.9	+- 0.8; 4.9	16.6	+- 1.3
31	356	5.0	17.7	+- 0.5; 2.7	14.7	+- 0.8; 4.6	15.3	+- 1.2
32	330	3.7	16.5	+- 0.5; 2.5	13.1	+- 0.8; 4.4	16.1	+- 1.8
33	338	4.7	18.3	+- 0.5; 2.7	15.4	+- 0.8; 4.7	16.9	+- 1.5
34	354	7.0	19.1	+- 0.6; 2.9	16.3	+- 0.8; 4.8	18.9	+- 3.0
35	297	4.4	18.5	+- 0.6; 2.8	15.7	+- 0.8; 4.7	15.9	+- 1.3
36	309	3.6	20.3	+- 0.6; 3.0	17.8	+- 0.9; 5.0	22.0	+- 5.4
37	350	1.1	18.8	+- 0.6; 2.8	15.9	+- 0.8; 4.7	16.5	+- 1.1
38	337	0.9	18.3	+- 0.5; 2.7	15.4	+- 0.8; 4.7	16.4	+- 1.6
39	315	1.0	18.1	+- 0.5; 2.7	15.2	+- 0.8; 4.7	15.0	+- 1.2
40	294	1.1	19.7	+- 0.6; 2.9	17.0	+- 0.8; 4.9	16.5	+- 1.3
41	274	1.1	20.4	+- 0.6; 3.1	17.9	+- 0.9; 5.0	18.6	+- 2.0
42	248	1.5	19.4	+- 0.6; 2.9	16.7	+- 0.8; 4.8	17.0	+- 2.1
44	5	100.0	19.4	+- 0.6; 2.9	16.7	+- 0.8; 4.8	16.7	+- 1.5
45	227	2.4	18.6	+- 0.6; 2.8	15.8	+- 0.8; 4.7	15.9	+- 1.9
46	209	3.2	16.2	+- 0.5; 2.4	12.8	+- 0.7; 4.4	14.4	+- 1.8
47	218	5.3	17.1	+- 0.5; 2.6	13.9	+- 0.8; 4.5	15.1	+- 1.8
48	201	4.6	18.4	+- 0.6; 2.8	15.5	+- 0.8; 4.7	16.0	+- 1.4
49	187	5.2	16.3	+- 0.5; 2.4	12.9	+- 0.7; 4.4	13.6	+- 1.6
50	171	7.1	17.1	+- 0.5; 2.6	13.9	+- 0.8; 4.5	14.3	+- 1.4

Transit Dose = 5.8 +- 0.4; 2.6

INDIAN POINT

For the period 961211-970414

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.0 +- 1.0	4
11.26 - 33.75 NNE	16.2 +- 0.7	3
33.76 - 56.25 NE	14.0 +- 2.9	3
56.26 - 78.75 ENE	14.8 +- 1.1	3
78.76 - 101.25 E	14.3 +- 1.0	3
101.26 - 123.75 ESE	14.1 +- 0.9	2
123.76 - 146.25 SE	13.9 +- 0.6	5
146.26 - 168.75 SSE	16.0 +- 1.1	3
168.76 - 191.25 S	13.9 +- 1.5	4
191.26 - 213.75 SSW	13.9 +- 1.4	3
213.76 - 236.25 SW	14.8 +- 1.3	2
236.26 - 258.75 WSW	16.7 +- 0.0	1
258.76 - 281.25 W	17.9 +- 0.0	1
281.26 - 303.75 WNW	16.3 +- 1.0	2
303.76 - 326.25 NW	16.5 +- 1.8	2
326.26 - 348.75 NNW	14.6 +- 1.3	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.1 +- 1.6	18
2 - 5	15.0 +- 1.5	16
> 5	14.8 +- 1.6	10
Upwind Control	16.3 +- 0.4	3

NRC TLD DOSES FOR INDIAN POINT AREA

KEWAUNEE/PT. BEACH

TLD Direct Radiation Environmental Monitoring

For the period 961210-970421 133 Days

Field Time: 91 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	189	8.1	16.8 +- 0.5; 2.5	12.0 +- 0.6; 3.9	12.6 +- 1.3
2	195	7.0	21.1 +- 0.6; 3.2	16.2 +- 0.7; 4.3	17.3 +- 2.3
3	163	4.9	16.0 +- 0.5; 2.4	11.1 +- 0.6; 3.8	13.0 +- 1.3
4	183	3.3	20.2 +- 0.6; 3.0	15.3 +- 0.7; 4.2	16.5 +- 1.7
5	210	3.2	17.2 +- 0.5; 2.6	12.3 +- 0.6; 3.9	12.1 +- 1.6
6	223	3.7	17.6 +- 0.5; 2.6	12.7 +- 0.6; 4.0	16.4 +- 1.9
7	242	5.7	17.4 +- 0.5; 2.6	12.5 +- 0.6; 4.0	14.0 +- 1.1
8	202	1.8	18.9 +- 0.6; 2.8	14.0 +- 0.7; 4.1	17.1 +- 1.5
9	180	1.8	19.0 +- 0.6; 2.9	14.1 +- 0.7; 4.1	15.6 +- 1.6
10	158	1.9	16.7 +- 0.5; 2.5	11.8 +- 0.6; 3.9	12.7 +- 1.4
11	235	1.2	18.5 +- 0.6; 2.8	13.6 +- 0.7; 4.1	16.9 +- 1.7
12	258	1.4	20.4 +- 0.6; 3.1	15.5 +- 0.7; 4.3	15.3 +- 1.7
13	273	1.4	19.0 +- 0.6; 2.8	14.1 +- 0.7; 4.1	15.7 +- 1.8
14	290	0.9	19.9 +- 0.6; 3.0	15.0 +- 0.7; 4.2	16.5 +- 1.5
15	333	0.8	17.6 +- 0.5; 2.6	12.7 +- 0.6; 4.0	15.2 +- 1.7
16	342	1.9	18.7 +- 0.6; 2.8	13.8 +- 0.7; 4.1	15.3 +- 1.6
17	317	2.0	18.5 +- 0.6; 2.8	13.6 +- 0.7; 4.1	13.4 +- 2.0
18	310	3.4	20.1 +- 0.6; 3.0	15.1 +- 0.7; 4.2	17.6 +- 1.5
19	293	4.0	18.8 +- 0.6; 2.8	13.9 +- 0.7; 4.1	14.2 +- 1.6
20	273	4.0	18.1 +- 0.5; 2.7	13.2 +- 0.6; 4.0	14.6 +- 2.1
21	300	5.6	18.2 +- 0.5; 2.7	13.3 +- 0.6; 4.0	14.6 +- 1.4
22	316	5.9	18.7 +- 0.6; 2.8	13.8 +- 0.7; 4.1	15.5 +- 1.6
23	345	2.7	19.8 +- 0.6; 3.0	14.9 +- 0.7; 4.2	16.5 +- 1.6
24	219	1.3	17.3 +- 0.5; 2.6	12.5 +- 0.6; 4.0	14.7 +- 1.7
25	247	1.4	19.4 +- 0.6; 2.9	14.5 +- 0.7; 4.2	16.6 +- 1.6
26	263	1.3	18.7 +- 0.6; 2.8	13.8 +- 0.7; 4.1	16.2 +- 1.6
27	290	1.4	19.3 +- 0.6; 2.9	14.4 +- 0.7; 4.1	16.8 +- 1.6
28	320	1.3	20.2 +- 0.6; 3.0	15.3 +- 0.7; 4.2	17.0 +- 2.1
29	342	1.1	Damaged Dosimeter	No Net Data	15.4 +- 2.2
30	329	0.6	18.4 +- 0.6; 2.8	13.5 +- 0.7; 4.1	16.5 +- 1.7
31	13	1.0	19.5 +- 0.6; 2.9	14.6 +- 0.7; 4.2	14.9 +- 1.6
32	353	2.1	19.6 +- 0.6; 2.9	14.7 +- 0.7; 4.2	16.0 +- 1.7
33	301	3.9	17.5 +- 0.5; 2.6	12.6 +- 0.6; 4.0	14.7 +- 1.6
34	299	8.4	18.2 +- 0.5; 2.7	13.3 +- 0.7; 4.0	15.7 +- 1.4
35	323	3.8	18.4 +- 0.6; 2.8	13.5 +- 0.7; 4.1	13.9 +- 2.0
36	336	3.3	20.6 +- 0.6; 3.1	15.7 +- 0.7; 4.3	16.8 +- 2.0
37	6	3.1	17.9 +- 0.5; 2.7	13.0 +- 0.6; 4.0	14.4 +- 1.4
38	14	3.7	18.0 +- 0.5; 2.7	13.1 +- 0.6; 4.0	15.3 +- 1.7
39	13	7.6	16.4 +- 0.5; 2.5	11.5 +- 0.6; 3.9	13.4 +- 1.7
40	247	4.3	20.0 +- 0.6; 3.0	15.1 +- 0.7; 4.2	18.6 +- 1.5
41	8	23.0	16.9 +- 0.5; 2.5	12.0 +- 0.6; 3.9	12.9 +- 1.9
42	8	23.0	17.2 +- 0.5; 2.6	12.3 +- 0.6; 3.9	13.5 +- 1.5
43	8	23.0	17.5 +- 0.5; 2.6	12.6 +- 0.6; 4.0	12.7 +- 1.6

Transit Dose = 4.8 +- 0.4; 3.0

KEWAUNEE/PT. BEACH
For the period 961210-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	13.9 +- 1.2	2
11.26 - 33.75 NNE	13.1 +- 1.5	3
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	No Data +- No Data	0
123.76 - 146.25 SE	No Data +- No Data	0
146.26 - 168.75 SSE	11.5 +- 0.5	2
168.76 - 191.25 S	13.8 +- 1.7	3
191.26 - 213.75 SSW	14.2 +- 1.9	3
213.76 - 236.25 SW	12.9 +- 0.6	3
236.26 - 258.75 WSW	14.4 +- 1.3	4
258.76 - 281.25 W	13.7 +- 0.5	3
281.26 - 303.75 WNW	13.7 +- 0.9	6
303.76 - 326.25 NW	14.3 +- 0.9	5
326.26 - 348.75 NNW	14.1 +- 1.2	5

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	13.9 +- 1.0	17
2 - 5	13.8 +- 1.3	15
> 5	13.2 +- 1.5	7
Upwind Control	12.3 +- 0.3	3

NRC TLD DOSES FOR KEWAUNEE AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

LACROSSE

TLD Direct Radiation Environmental Monitoring

For the period 961210-970417 129 Days

Field Time: 85 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	5 20.0	18.3 +- 0.5; 2.7	14.8 +- 0.7; 4.2	14.8 +- 1.6
2	5 20.0	19.0 +- 0.6; 2.8	15.6 +- 0.7; 4.2	15.3 +- 1.3
3	3 20.0	18.5 +- 0.6; 2.8	15.1 +- 0.7; 4.2	15.8 +- 1.0
4	343 3.8	18.4 +- 0.6; 2.8	15.0 +- 0.7; 4.2	14.7 +- 1.3
5	313 3.8	19.3 +- 0.6; 2.9	15.9 +- 0.7; 4.3	16.2 +- 0.9
6	291 3.0	18.1 +- 0.5; 2.7	14.7 +- 0.7; 4.1	15.7 +- 1.1
7	261 4.8	20.6 +- 0.6; 3.1	17.2 +- 0.7; 4.4	17.6 +- 1.6
8	249 3.2	18.5 +- 0.6; 2.8	15.0 +- 0.7; 4.2	17.1 +- 1.7
9	214 5.0	17.0 +- 0.5; 2.5	13.4 +- 0.6; 4.0	15.9 +- 1.5
10	171 9.8	19.1 +- 0.6; 2.9	15.7 +- 0.7; 4.3	14.5 +- 1.2
11	176 5.1	18.9 +- 0.6; 2.8	15.5 +- 0.7; 4.2	14.9 +- 1.0
12	165 4.9	19.1 +- 0.6; 2.9	15.7 +- 0.7; 4.3	16.2 +- 1.0
13	138 3.5	20.0 +- 0.6; 3.0	16.7 +- 0.7; 4.4	16.9 +- 1.2
14	114 4.2	19.1 +- 0.6; 2.9	15.7 +- 0.7; 4.3	15.7 +- 1.1
15	97 3.9	17.1 +- 0.5; 2.6	13.5 +- 0.6; 4.0	14.7 +- 0.9
16	94 3.0	19.6 +- 0.6; 2.9	16.3 +- 0.7; 4.3	16.6 +- 1.2
17	105 2.0	17.1 +- 0.5; 2.6	13.6 +- 0.7; 4.0	16.0 +- 2.2
18	52 1.5	18.2 +- 0.5; 2.7	14.8 +- 0.7; 4.2	14.2 +- 1.1
19	16 1.5	16.9 +- 0.5; 2.5	13.4 +- 0.6; 4.0	14.5 +- 1.0
20	1 1.0	16.8 +- 0.5; 2.5	13.2 +- 0.6; 4.0	13.4 +- 1.0
21	358 0.5	19.7 +- 0.6; 2.9	16.3 +- 0.7; 4.3	17.0 +- 1.1
22	180 0.6	19.2 +- 0.6; 2.9	15.8 +- 0.7; 4.3	16.2 +- 0.9
23	134 1.7	18.5 +- 0.6; 2.8	15.1 +- 0.7; 4.2	16.2 +- 1.5
24	58 0.6	21.4 +- 0.6; 3.2	18.2 +- 0.8; 4.5	17.4 +- 1.5
25	59 3.1	18.8 +- 0.6; 2.8	15.4 +- 0.7; 4.2	17.1 +- 1.5
26	16 1.5	19.4 +- 0.6; 2.9	16.0 +- 0.7; 4.3	16.5 +- 1.4
27	26 5.1	18.6 +- 0.6; 2.8	15.1 +- 0.7; 4.2	15.3 +- 1.1
28	25 7.0	17.3 +- 0.5; 2.6	13.8 +- 0.7; 4.1	14.3 +- 1.5
29	4 4.8	19.6 +- 0.6; 2.9	16.2 +- 0.7; 4.3	16.0 +- 1.2

Transit Dose = 4.3 +- 0.3; 2.8

LACROSSE

For the period 961210-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	15.2 +- 1.7	3
11.26 - 33.75 NNE	14.6 +- 1.2	4
33.76 - 56.25 NE	14.8 +- 0.0	1
56.26 - 78.75 ENE	16.8 +- 2.0	2
78.76 - 101.25 E	14.9 +- 1.9	2
101.26 - 123.75 ESE	14.7 +- 1.5	2
123.76 - 146.25 SE	15.9 +- 1.1	2
146.26 - 168.75 SSE	15.7 +- 0.0	1
168.76 - 191.25 S	15.7 +- 0.2	3
191.26 - 213.75 SSW	No Data +- No Data	0
213.76 - 236.25 SW	13.4 +- 0.0	1
236.26 - 258.75 WSW	15.0 +- 0.0	1
258.76 - 281.25 W	17.2 +- 0.0	1
281.26 - 303.75 WNW	14.7 +- 0.0	1
303.76 - 326.25 NW	15.9 +- 0.0	1
326.26 - 348.75 NNW	15.0 +- 0.0	1

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.2 +- 1.6	9
2 - 5	15.4 +- 1.1	13
> 5	15.0 +- 0.9	4
Upwind Control	15.1 +- 0.4	3

NRC TLD DOSES FOR LACROSSE AREA

Miles

Legend

Highways

Railroads

Roads

Plant..site

LASALLE

TLD Direct Radiation Environmental Monitoring

For the period 961210-970416 128 Days

Field Time: 86 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	302	10.0	20.1 +- 0.6; 3.0		17.1 +- 0.7; 4.3		17.5 +- 1.2	
2	335	5.3	20.2 +- 0.6; 3.0		17.3 +- 0.7; 4.3		19.8 +- 1.5	
3	343	5.8	18.6 +- 0.6; 2.8		15.6 +- 0.7; 4.1		15.8 +- 1.0	
4	38	5.5	18.7 +- 0.6; 2.8		15.7 +- 0.7; 4.1		19.1 +- 2.1	
5	39	4.3	16.9 +- 0.5; 2.5		13.8 +- 0.6; 3.9		14.8 +- 1.2	
6	27	3.8	18.8 +- 0.6; 2.8		15.8 +- 0.7; 4.1		17.3 +- 1.3	
7	2	4.1	20.6 +- 0.6; 3.1		17.7 +- 0.7; 4.4		19.6 +- 1.3	
8	304	4.6	21.7 +- 0.7; 3.3		18.9 +- 0.8; 4.5		19.2 +- 1.3	
9	292	3.9	23.3 +- 0.7; 3.5		20.5 +- 0.8; 4.7		19.9 +- 2.6	
10	281	3.7	19.3 +- 0.6; 2.9		16.4 +- 0.7; 4.2		19.4 +- 1.7	
11	248	4.0	19.8 +- 0.6; 3.0		16.9 +- 0.7; 4.3		18.6 +- 1.2	
12	222	12.0	19.7 +- 0.6; 3.0		16.8 +- 0.7; 4.3		17.9 +- 1.1	
13	212	18.0	19.6 +- 0.6; 2.9		16.6 +- 0.7; 4.2		18.4 +- 1.1	
14	212	18.0	19.9 +- 0.6; 3.0		17.0 +- 0.7; 4.3		19.1 +- 1.2	
15	212	18.0	20.3 +- 0.6; 3.0		17.4 +- 0.7; 4.3		18.9 +- 1.3	
16	215	4.4	21.3 +- 0.6; 3.2		18.5 +- 0.8; 4.4		19.9 +- 1.1	
17	204	4.0	20.7 +- 0.6; 3.1		17.8 +- 0.7; 4.4		19.2 +- 1.1	
18	173	4.6	21.8 +- 0.7; 3.3		18.9 +- 0.8; 4.5		19.8 +- 1.2	
19	174	6.4	19.0 +- 0.6; 2.8		16.0 +- 0.7; 4.2		17.3 +- 1.0	
20	158	3.6	20.8 +- 0.6; 3.1		18.0 +- 0.7; 4.4		18.8 +- 1.4	
21	124	4.2	19.9 +- 0.6; 3.0		17.0 +- 0.7; 4.3		19.3 +- 1.7	
22	114	3.8	Damaged Dosimeter		No Net Data		18.9 +- 1.2	
23	97	4.5	20.4 +- 0.6; 3.1		17.4 +- 0.7; 4.3		18.3 +- 1.4	
24	72	4.7	21.6 +- 0.6; 3.2		18.8 +- 0.8; 4.5		20.0 +- 1.4	
25	41	2.0	20.2 +- 0.6; 3.0		17.2 +- 0.7; 4.3		19.1 +- 1.1	
26	11	1.6	20.1 +- 0.6; 3.0		17.2 +- 0.7; 4.3		18.8 +- 1.3	
27	358	1.5	20.6 +- 0.6; 3.1		17.7 +- 0.7; 4.4		19.4 +- 1.2	
28	336	1.6	20.0 +- 0.6; 3.0		17.1 +- 0.7; 4.3		18.5 +- 1.3	
29	310	2.3	18.5 +- 0.6; 2.8		15.5 +- 0.7; 4.1		17.9 +- 1.4	
30	301	2.0	21.9 +- 0.7; 3.3		19.1 +- 0.8; 4.5		21.2 +- 1.1	
31	271	1.7	21.0 +- 0.6; 3.2		18.1 +- 0.7; 4.4		18.6 +- 1.2	
32	256	1.8	21.8 +- 0.7; 3.3		19.0 +- 0.8; 4.5		19.6 +- 1.7	
33	227	2.4	21.6 +- 0.6; 3.2		18.8 +- 0.8; 4.5		20.7 +- 1.3	
34	204	1.7	20.5 +- 0.6; 3.1		17.6 +- 0.7; 4.3		18.9 +- 1.0	
35	165	1.6	20.1 +- 0.6; 3.0		17.2 +- 0.7; 4.3		19.9 +- 1.9	
36	149	1.8	21.3 +- 0.6; 3.2		18.5 +- 0.7; 4.4		19.8 +- 1.3	
37	139	2.1	20.6 +- 0.6; 3.1		17.7 +- 0.7; 4.4		19.1 +- 1.2	
38	111	1.5	19.5 +- 0.6; 2.9		16.6 +- 0.7; 4.2		17.2 +- 1.2	
39	265	0.6	22.7 +- 0.7; 3.4		19.9 +- 0.8; 4.6		20.1 +- 1.5	

Transit Dose = 3.7 +- 0.3; 2.8

LASALLE

For the period 961210-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.5 +- 0.3	3
11.26 - 33.75 NNE	15.8 +- 0.0	1
33.76 - 56.25 NE	15.6 +- 1.7	3
56.26 - 78.75 ENE	18.8 +- 0.0	1
78.76 - 101.25 E	17.4 +- 0.0	1
101.26 - 123.75 ESE	16.6 +- 0.0	1
123.76 - 146.25 SE	17.4 +- 0.5	2
146.26 - 168.75 SSE	17.9 +- 0.6	3
168.76 - 191.25 S	17.5 +- 2.0	2
191.26 - 213.75 SSW	17.7 +- 0.2	2
213.76 - 236.25 SW	18.0 +- 1.1	3
236.26 - 258.75 WSW	17.9 +- 1.5	2
258.76 - 281.25 W	18.1 +- 1.8	3
281.26 - 303.75 WNW	18.9 +- 1.7	3
303.76 - 326.25 NW	17.2 +- 2.4	2
326.26 - 348.75 NNW	16.7 +- 0.9	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.9 +- 1.0	12
2 - 5	17.5 +- 1.6	17
> 5	16.4 +- 0.8	6
Upwind Control	17.0 +- 0.4	3

NRC TLD DOSES FOR LASALLE AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

LIMERICK

TLD Direct Radiation Environmental Monitoring

For the period 961209-970410 123 Days

Field Time: 99 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.			Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.			Hist. Range Net Exp Rate +-1 Std Dev	
1	115	8.5	25.8	+-	0.8; 3.9	23.5	+-	0.7; 4.4	22.7	+- 1.5
3	85	3.7	21.4	+-	0.6; 3.2	19.4	+-	0.6; 3.9	18.9	+- 1.3
4	46	3.3	21.5	+-	0.6; 3.2	19.5	+-	0.6; 3.9	19.5	+- 1.4
5	20	3.7	21.1	+-	0.6; 3.2	19.2	+-	0.6; 3.9	19.3	+- 1.3
6	7	4.6	22.1	+-	0.7; 3.3	20.1	+-	0.6; 4.0	20.0	+- 1.3
7	340	7.2	20.7	+-	0.6; 3.1	18.8	+-	0.6; 3.9	17.7	+- 1.4
8	332	4.0	22.2	+-	0.7; 3.3	20.1	+-	0.6; 4.0	19.1	+- 1.2
9	313	3.4	22.2	+-	0.7; 3.3	20.2	+-	0.6; 4.0	19.1	+- 1.3
10	291	4.9	24.1	+-	0.7; 3.6	21.9	+-	0.7; 4.2	20.9	+- 1.5
11	304	3.0	29.3	+-	0.9; 4.4	26.6	+-	0.8; 4.8	24.4	+- 1.7
12	316	1.9	21.5	+-	0.6; 3.2	19.6	+-	0.6; 3.9	18.2	+- 1.2
13	347	1.9	22.8	+-	0.7; 3.4	20.7	+-	0.7; 4.1	20.4	+- 1.4
14	339	1.5	19.9	+-	0.6; 3.0	18.1	+-	0.6; 3.8	17.3	+- 1.1
15	41	1.7	22.0	+-	0.7; 3.3	20.0	+-	0.6; 4.0	18.2	+- 1.4
16	66	2.6	20.3	+-	0.6; 3.0	18.5	+-	0.6; 3.8	19.0	+- 1.5
17	5	0.6	20.9	+-	0.6; 3.1	19.0	+-	0.6; 3.9	18.4	+- 1.7
18	300	0.7	20.6	+-	0.6; 3.1	18.7	+-	0.6; 3.8	18.8	+- 1.5
19	291	0.7	20.6	+-	0.6; 3.1	18.7	+-	0.6; 3.8	18.5	+- 1.5
20	260	0.7	Damaged Dosimeter			No Net Data			18.2	+- 1.3
21	234	0.9	21.0	+-	0.6; 3.1	19.1	+-	0.6; 3.9	18.2	+- 1.3
22	210	1.1	20.7	+-	0.6; 3.1	18.8	+-	0.6; 3.9	19.0	+- 1.1
23	174	1.7	20.3	+-	0.6; 3.0	18.5	+-	0.6; 3.8	17.0	+- 1.2
24	149	1.5	20.5	+-	0.6; 3.1	18.6	+-	0.6; 3.8	17.6	+- 1.3
25	124	1.0	21.8	+-	0.7; 3.3	19.8	+-	0.6; 4.0	19.6	+- 1.2
26	114	1.1	21.7	+-	0.7; 3.3	19.8	+-	0.6; 4.0	19.8	+- 1.3
27	160	1.0	20.5	+-	0.6; 3.1	18.6	+-	0.6; 3.8	18.9	+- 1.2
28	81	1.0	20.1	+-	0.6; 3.0	18.2	+-	0.6; 3.8	18.4	+- 1.2
29	51	0.7	21.5	+-	0.6; 3.2	19.5	+-	0.6; 3.9	19.0	+- 1.4
30	144	3.2	24.7	+-	0.7; 3.7	22.5	+-	0.7; 4.3	22.3	+- 1.6
31	158	2.6	22.0	+-	0.7; 3.3	20.0	+-	0.6; 4.0	18.9	+- 1.8
32	153	7.3	20.6	+-	0.6; 3.1	18.7	+-	0.6; 3.8	17.6	+- 1.3
33	186	4.2	20.9	+-	0.6; 3.1	19.0	+-	0.6; 3.9	17.1	+- 1.3
34	194	3.8	18.0	+-	0.5; 2.7	16.3	+-	0.5; 3.6	16.6	+- 1.3
35	229	5.1	21.4	+-	0.6; 3.2	19.4	+-	0.6; 3.9	18.8	+- 1.2
36	251	4.1	24.3	+-	0.7; 3.6	22.1	+-	0.7; 4.2	20.0	+- 2.1
37	270	3.0	17.7	+-	0.5; 2.7	16.1	+-	0.5; 3.6	15.8	+- 1.1
38	293	11.9	22.8	+-	0.7; 3.4	20.8	+-	0.7; 4.1	20.2	+- 1.5
39	293	11.9	23.0	+-	0.7; 3.5	20.9	+-	0.7; 4.1	20.4	+- 1.5
40	293	11.9	22.0	+-	0.7; 3.3	20.0	+-	0.6; 4.0	20.7	+- 1.6
41	126	2.9	18.2	+-	0.5; 2.7	16.5	+-	0.5; 3.6	15.9	+- 1.0
42	111	4.3	23.4	+-	0.7; 3.5	21.2	+-	0.7; 4.1	19.3	+- 1.5

Transit Dose = 0.0 +- 0.2; 2.9

LIMERICK

For the period 961209-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	19.5 +- 0.7	2
11.26 - 33.75 NNE	19.2 +- 0.0	1
33.76 - 56.25 NE	19.7 +- 0.3	3
56.26 - 78.75 ENE	18.5 +- 0.0	1
78.76 - 101.25 E	18.8 +- 0.8	2
101.26 - 123.75 ESE	21.5 +- 1.9	3
123.76 - 146.25 SE	19.6 +- 3.0	3
146.26 - 168.75 SSE	19.0 +- 0.7	4
168.76 - 191.25 S	18.7 +- 0.4	2
191.26 - 213.75 SSW	17.5 +- 1.7	2
213.76 - 236.25 SW	19.3 +- 0.2	2
236.26 - 258.75 WSW	22.1 +- 0.0	1
258.76 - 281.25 W	16.1 +- 0.0	1
281.26 - 303.75 WNW	19.8 +- 1.8	3
303.76 - 326.25 NW	22.1 +- 3.9	3
326.26 - 348.75 NNW	19.4 +- 1.2	4

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	19.1 +- 0.7	16
2 - 5	20.0 +- 2.6	17
> 5	20.1 +- 2.3	4
Upwind Control	20.6 +- 0.5	3

NRC TLD DOSES FOR LIMERICK AREA

Miles

Legend

Water

--- Railroads

Plant site

— Highways

--- Roads

MAINE YANKEE

TLD Direct Radiation Environmental Monitoring

For the period 961212-970423 133 Days

Field Time: 91 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	340	1.0	22.3	+- 0.7; 3.3	18.5	+- 0.7; 4.4	18.7	+- 1.6
2	6	1.4	21.3	+- 0.6; 3.2	17.5	+- 0.7; 4.3	17.6	+- 1.6
3	23	1.5	20.3	+- 0.6; 3.0	16.5	+- 0.7; 4.2	17.5	+- 1.9
4	44	1.8	20.0	+- 0.6; 3.0	16.3	+- 0.7; 4.2	17.2	+- 1.8
5	116	0.5	20.2	+- 0.6; 3.0	16.5	+- 0.7; 4.2	17.1	+- 1.8
6	168	1.0	21.6	+- 0.6; 3.2	17.8	+- 0.7; 4.3	18.2	+- 1.7
7	185	1.6	19.2	+- 0.6; 2.9	15.5	+- 0.7; 4.1	16.8	+- 1.5
8	195	2.3	20.7	+- 0.6; 3.1	16.9	+- 0.7; 4.2	17.8	+- 1.6
9	209	3.8	19.6	+- 0.6; 2.9	15.8	+- 0.7; 4.1	17.2	+- 1.6
10	310	1.7	18.6	+- 0.6; 2.8	14.9	+- 0.6; 4.0	17.3	+- 1.7
11	290	1.8	22.7	+- 0.7; 3.4	18.9	+- 0.7; 4.4	20.0	+- 2.2
12	275	1.7	19.8	+- 0.6; 3.0	16.0	+- 0.7; 4.1	19.1	+- 1.8
13	256	1.9	19.4	+- 0.6; 2.9	15.6	+- 0.7; 4.1	17.7	+- 1.9
14	232	2.5	21.0	+- 0.6; 3.1	17.2	+- 0.7; 4.3	18.8	+- 1.6
15	227	5.3	20.9	+- 0.6; 3.1	17.1	+- 0.7; 4.2	18.5	+- 2.0
16	246	4.4	20.1	+- 0.6; 3.0	16.3	+- 0.7; 4.2	19.6	+- 2.1
17	250	6.6	27.6	+- 0.8; 4.1	23.7	+- 0.9; 5.0	23.9	+- 1.6
18	268	4.7	20.5	+- 0.6; 3.1	16.7	+- 0.7; 4.2	18.6	+- 1.7
19	283	4.4	20.3	+- 0.6; 3.0	16.5	+- 0.7; 4.2	18.4	+- 1.6
20	305	4.7	20.6	+- 0.6; 3.1	16.8	+- 0.7; 4.2	17.7	+- 1.8
21	300	2.9	20.2	+- 0.6; 3.0	16.4	+- 0.7; 4.2	18.3	+- 1.9
22	332	2.7	19.8	+- 0.6; 3.0	16.0	+- 0.7; 4.1	18.7	+- 2.0
23	20	3.9	21.5	+- 0.6; 3.2	17.7	+- 0.7; 4.3	18.7	+- 2.0
24	23	3.0	21.7	+- 0.7; 3.3	17.9	+- 0.7; 4.3	19.2	+- 1.9
25	42	4.7	21.4	+- 0.6; 3.2	17.6	+- 0.7; 4.3	18.9	+- 1.9
26	60	15.0	17.8	+- 0.5; 2.7	14.0	+- 0.6; 3.9	17.2	+- 1.9
27	62	16.0	19.2	+- 0.6; 2.9	15.4	+- 0.7; 4.1	16.2	+- 1.6
28	63	16.0	20.0	+- 0.6; 3.0	16.2	+- 0.7; 4.1	17.5	+- 1.4
29	64	2.1	23.4	+- 0.7; 3.5	19.6	+- 0.8; 4.5	20.0	+- 1.9
30	84	1.5	18.6	+- 0.6; 2.8	14.9	+- 0.6; 4.0	16.9	+- 1.8
31	115	1.6	20.4	+- 0.6; 3.1	16.7	+- 0.7; 4.2	16.9	+- 1.5
32	135	2.0	19.3	+- 0.6; 2.9	15.5	+- 0.7; 4.1	16.4	+- 1.8
33	66	3.5	20.4	+- 0.6; 3.1	16.6	+- 0.7; 4.2	17.8	+- 1.7
34	97	4.9	21.7	+- 0.7; 3.3	18.0	+- 0.7; 4.3	19.1	+- 1.7
35	123	4.8	22.0	+- 0.7; 3.3	18.2	+- 0.7; 4.4	18.9	+- 1.9
36	140	4.9	18.7	+- 0.6; 2.8	15.0	+- 0.6; 4.0	17.2	+- 2.0
37	151	6.0	22.3	+- 0.7; 3.3	18.5	+- 0.7; 4.4	18.8	+- 2.1
38	152	4.2	23.7	+- 0.7; 3.6	19.9	+- 0.8; 4.6	19.6	+- 1.8
39	172	4.9	20.3	+- 0.6; 3.0	16.5	+- 0.7; 4.2	17.7	+- 1.6
40	156	7.4	22.0	+- 0.7; 3.3	18.2	+- 0.7; 4.4	18.0	+- 1.4

Transit Dose = 3.6 +- 0.3; 2.9

MAINE YANKEE

For the period 961212-970423

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.5 +- 0.0	1
11.26 - 33.75 NNE	17.4 +- 0.8	3
33.76 - 56.25 NE	16.9 +- 0.9	2
56.26 - 78.75 ENE	18.1 +- 2.1	2
78.76 - 101.25 E	16.4 +- 2.2	2
101.26 - 123.75 ESE	17.1 +- 1.0	3
123.76 - 146.25 SE	15.2 +- 0.4	2
146.26 - 168.75 SSE	18.6 +- 0.9	4
168.76 - 191.25 S	16.0 +- 0.7	2
191.26 - 213.75 SSW	16.4 +- 0.8	2
213.76 - 236.25 SW	17.1 +- 0.1	2
236.26 - 258.75 WSW	18.6 +- 4.5	3
258.76 - 281.25 W	16.4 +- 0.5	2
281.26 - 303.75 WNW	17.3 +- 1.4	3
303.76 - 326.25 NW	15.9 +- 1.4	2
326.26 - 348.75 NNW	17.3 +- 1.7	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.5 +- 1.3	14
2 - 5	17.1 +- 1.2	19
> 5	19.4 +- 3.0	4
Upwind Control	15.2 +- 1.1	3

NRC TLD DOSES FOR MAINE YANKEE AREA

Miles

Legend

Water

--- Railroads

Plant..site

— Highways

--- Roads

MCGUIRE

TLD Direct Radiation Environmental Monitoring

For the period 961210-970415 127 Days

Field Time: 83 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	97	0.5	15.4	+- 0.5; 2.3	12.2	+- 0.6; 3.9	13.2	+- 2.5
2	323	1.6	18.2	+- 0.5; 2.7	15.2	+- 0.7; 4.2	16.1	+- 1.8
3	336	1.7	19.4	+- 0.6; 2.9	16.6	+- 0.7; 4.3	17.0	+- 2.3
4	303	2.9	18.3	+- 0.5; 2.7	15.4	+- 0.7; 4.2	15.3	+- 3.2
5	321	3.9	17.8	+- 0.5; 2.7	14.8	+- 0.7; 4.2	15.8	+- 1.7
6	334	3.7	16.6	+- 0.5; 2.5	13.5	+- 0.6; 4.0	15.1	+- 2.1
7	352	3.5	16.7	+- 0.5; 2.5	13.6	+- 0.7; 4.0	13.7	+- 2.3
8	287	2.0	Missing Dosimeter		No Net Data		17.7	+- 2.7
9	273	1.9	19.1	+- 0.6; 2.9	16.2	+- 0.7; 4.3	14.9	+- 2.9
10	244	1.7	15.8	+- 0.5; 2.4	12.7	+- 0.6; 3.9	13.9	+- 2.3
11	225	2.1	14.7	+- 0.4; 2.2	11.4	+- 0.6; 3.8	13.4	+- 2.3
12	212	3.6	17.3	+- 0.5; 2.6	14.2	+- 0.7; 4.1	15.3	+- 2.2
13	232	4.4	22.1	+- 0.7; 3.3	19.5	+- 0.8; 4.7	21.2	+- 1.9
14	253	3.7	18.9	+- 0.6; 2.8	16.0	+- 0.7; 4.3	17.9	+- 2.4
15	261	4.2	16.4	+- 0.5; 2.5	13.3	+- 0.6; 4.0	14.3	+- 1.9
16	288	4.3	21.8	+- 0.7; 3.3	19.2	+- 0.8; 4.6	21.1	+- 2.3
17	288	17.0	24.0	+- 0.7; 3.6	21.5	+- 0.9; 4.9	22.1	+- 1.9
18	287	2.0	20.2	+- 0.6; 3.0	17.4	+- 0.7; 4.4	19.8	+- 2.7
19	286	17.0	21.5	+- 0.6; 3.2	18.8	+- 0.8; 4.6	20.8	+- 3.3
20	233	18.0	23.0	+- 0.7; 3.4	20.4	+- 0.8; 4.8	20.8	+- 2.1
21	204	10.0	15.9	+- 0.5; 2.4	12.7	+- 0.6; 3.9	14.9	+- 2.3
22	239	9.5	18.3	+- 0.5; 2.7	15.4	+- 0.7; 4.2	16.4	+- 2.3
23	115	4.9	13.1	+- 0.4; 2.0	9.7	+- 0.6; 3.7	12.1	+- 2.6
24	132	4.9	15.1	+- 0.5; 2.3	11.9	+- 0.6; 3.9	12.8	+- 1.9
25	156	4.0	11.9	+- 0.4; 1.8	8.4	+- 0.5; 3.6	10.6	+- 2.3
26	175	3.7	15.1	+- 0.5; 2.3	11.8	+- 0.6; 3.9	13.1	+- 1.8
27	198	4.3	18.2	+- 0.5; 2.7	15.3	+- 0.7; 4.2	18.4	+- 2.9
28	169	13.0	15.0	+- 0.4; 2.2	11.7	+- 0.6; 3.9	13.2	+- 2.6
29	155	13.0	15.0	+- 0.5; 2.3	11.8	+- 0.6; 3.9	13.3	+- 2.1
30	146	14.0	14.5	+- 0.4; 2.2	11.2	+- 0.6; 3.8	12.6	+- 2.1
31	143	1.9	13.4	+- 0.4; 2.0	10.0	+- 0.6; 3.7	12.6	+- 3.5
32	155	1.3	15.4	+- 0.5; 2.3	12.2	+- 0.6; 3.9	13.7	+- 2.3
33	178	1.6	14.4	+- 0.4; 2.2	11.1	+- 0.6; 3.8	12.1	+- 2.3
34	108	2.0	17.0	+- 0.5; 2.6	14.0	+- 0.7; 4.1	14.0	+- 2.1
35	93	2.2	14.3	+- 0.4; 2.2	11.1	+- 0.6; 3.8	13.2	+- 2.9
36	68	2.5	16.1	+- 0.5; 2.4	13.0	+- 0.6; 4.0	13.7	+- 2.3
37	82	4.7	14.9	+- 0.4; 2.2	11.7	+- 0.6; 3.8	13.4	+- 2.3
38	64	4.9	16.5	+- 0.5; 2.5	13.4	+- 0.6; 4.0	13.7	+- 2.6
39	42	5.0	17.1	+- 0.5; 2.6	14.1	+- 0.7; 4.1	16.6	+- 3.2
40	26	4.3	17.7	+- 0.5; 2.6	14.7	+- 0.7; 4.1	14.2	+- 2.3
41	42	2.0	13.5	+- 0.4; 2.0	10.2	+- 0.6; 3.7	12.1	+- 2.1
42	21	1.6	19.5	+- 0.6; 2.9	16.7	+- 0.7; 4.4	16.1	+- 2.4
43	8	2.6	19.1	+- 0.6; 2.9	16.2	+- 0.7; 4.3	17.1	+- 2.1
44	37	13.0	20.6	+- 0.6; 3.1	17.8	+- 0.8; 4.5	20.2	+- 2.9
45	78	19.0	23.9	+- 0.7; 3.6	21.5	+- 0.9; 4.9	22.4	+- 2.6
46	94	19.0	22.1	+- 0.7; 3.3	19.4	+- 0.8; 4.7	16.8	+- 2.3

Transit Dose = 4.2 +- 0.3; 2.7

MCGUIRE

For the period 961210-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	14.9 +- 1.8	2
11.26 - 33.75 NNE	15.7 +- 1.4	2
33.76 - 56.25 NE	14.0 +- 3.8	3
56.26 - 78.75 ENE	15.9 +- 4.8	3
78.76 - 101.25 E	13.6 +- 3.9	4
101.26 - 123.75 ESE	11.8 +- 3.0	2
123.76 - 146.25 SE	11.0 +- 1.0	3
146.26 - 168.75 SSE	10.8 +- 2.1	3
168.76 - 191.25 S	11.6 +- 0.4	3
191.26 - 213.75 SSW	14.1 +- 1.3	3
213.76 - 236.25 SW	17.1 +- 5.0	3
236.26 - 258.75 WSW	14.7 +- 1.8	3
258.76 - 281.25 W	14.7 +- 2.1	2
281.26 - 303.75 WNW	17.3 +- 2.7	2
303.76 - 326.25 NW	15.0 +- 0.3	2
326.26 - 348.75 NNW	15.0 +- 2.2	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	13.4 +- 2.5	11
2 - 5	13.7 +- 2.7	22
> 5	15.8 +- 4.1	9
Upwind Control	19.2 +- 2.1	3

NRC TLD DOSES FOR McGUIRE AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

MILLSTONE

TLD Direct Radiation Environmental Monitoring

For the period 961211-970423 134 Days

Field Time: 87 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	0	1.0	23.5 +- 0.7; 3.5		21.8 +- 0.8; 4.6		20.1 +- 1.2	
2	24	1.3	17.9 +- 0.5; 2.7		16.0 +- 0.6; 3.9		15.0 +- 1.0	
3	47	1.5	23.1 +- 0.7; 3.5		21.4 +- 0.8; 4.5		19.8 +- 1.1	
4	60	1.7	22.1 +- 0.7; 3.3		20.3 +- 0.7; 4.4		18.1 +- 1.4	
5	85	1.3	23.0 +- 0.7; 3.4		21.3 +- 0.8; 4.5		19.1 +- 0.9	
6	110	1.8	22.2 +- 0.7; 3.3		20.4 +- 0.7; 4.4		18.7 +- 1.1	
7	67	5.3	23.0 +- 0.7; 3.5		21.4 +- 0.8; 4.5		19.8 +- 1.9	
8	49	5.3	18.3 +- 0.5; 2.7		16.5 +- 0.6; 4.0		20.2 +- 1.3	
9	84	5.2	Damaged Dosimeter		No Net Data		18.1 +- 1.0	
11	232	2.5	21.9 +- 0.7; 3.3		20.2 +- 0.7; 4.4		17.8 +- 1.1	
12	256	2.4	22.8 +- 0.7; 3.4		21.1 +- 0.8; 4.5		20.1 +- 1.1	
13	274	2.2	24.5 +- 0.7; 3.7		22.8 +- 0.8; 4.7		19.9 +- 1.2	
14	295	1.9	24.1 +- 0.7; 3.6		22.4 +- 0.8; 4.7		21.2 +- 1.4	
15	315	1.5	19.1 +- 0.6; 2.9		17.3 +- 0.7; 4.1		15.8 +- 0.9	
16	339	1.2	23.0 +- 0.7; 3.5		21.3 +- 0.8; 4.5		19.9 +- 1.1	
17	353	3.5	22.1 +- 0.7; 3.3		20.4 +- 0.7; 4.4		18.9 +- 1.4	
18	24	3.5	22.2 +- 0.7; 3.3		20.5 +- 0.8; 4.4		19.7 +- 1.3	
19	33	3.0	27.0 +- 0.8; 4.1		25.5 +- 0.9; 5.0		21.1 +- 1.9	
20	82	4.0	21.3 +- 0.6; 3.2		19.6 +- 0.7; 4.3		18.0 +- 1.0	
22	59	3.7	22.1 +- 0.7; 3.3		20.3 +- 0.7; 4.4		20.3 +- 1.3	
28	257	5.8	27.9 +- 0.8; 4.2		26.4 +- 0.9; 5.2		22.1 +- 2.5	
29	272	3.7	26.6 +- 0.8; 4.0		25.1 +- 0.9; 5.0		21.7 +- 1.7	
30	295	3.5	23.8 +- 0.7; 3.6		22.2 +- 0.8; 4.6		21.2 +- 1.4	
31	317	3.6	21.6 +- 0.6; 3.2		19.9 +- 0.7; 4.4		18.4 +- 1.2	
32	327	4.3	25.6 +- 0.8; 3.8		24.0 +- 0.8; 4.9		21.7 +- 1.6	
33	41	4.7	22.8 +- 0.7; 3.4		21.1 +- 0.8; 4.5		19.8 +- 1.1	
34	54	5.5	23.8 +- 0.7; 3.6		22.1 +- 0.8; 4.6		21.0 +- 1.4	
37	354	6.8	22.4 +- 0.7; 3.4		20.7 +- 0.8; 4.5		19.3 +- 1.2	
39	1	5.7	22.6 +- 0.7; 3.4		20.9 +- 0.8; 4.5		18.9 +- 1.1	
40	278	8.7	19.9 +- 0.6; 3.0		18.1 +- 0.7; 4.2		17.0 +- 1.1	
41	34	11.0	27.2 +- 0.8; 4.1		25.6 +- 0.9; 5.1		23.8 +- 1.6	
42	84	8.0	22.9 +- 0.7; 3.4		21.2 +- 0.8; 4.5		19.2 +- 1.3	
46	41	0.6	22.3 +- 0.7; 3.3		20.6 +- 0.8; 4.5		18.7 +- 1.3	
48	4	40.0	26.4 +- 0.8; 4.0		24.8 +- 0.9; 5.0		24.4 +- 2.1	
49	4	40.0	27.5 +- 0.8; 4.1		25.9 +- 0.9; 5.1		24.4 +- 2.1	

Transit Dose = 2.4 +- 0.3; 2.7

MILLSTONE

For the period 961211-970423

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	21.0 +- 0.6	4
11.26 - 33.75 NNE	20.6 +- 4.8	3
33.76 - 56.25 NE	21.2 +- 2.9	6
56.26 - 78.75 ENE	20.7 +- 0.6	3
78.76 - 101.25 E	20.7 +- 0.9	3
101.26 - 123.75 ESE	20.4 +- 0.0	1
123.76 - 146.25 SE	No Data +- No Data	0
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	No Data +- No Data	0
191.26 - 213.75 SSW	No Data +- No Data	0
213.76 - 236.25 SW	20.2 +- 0.0	1
236.26 - 258.75 WSW	23.7 +- 3.8	2
258.76 - 281.25 W	22.0 +- 3.6	3
281.26 - 303.75 WNW	22.3 +- 0.2	2
303.76 - 326.25 NW	18.6 +- 1.8	2
326.26 - 348.75 NNW	22.7 +- 1.9	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	20.3 +- 2.0	10
2 - 5	21.7 +- 2.0	13
> 5	21.4 +- 3.2	9
Upwind Control	25.4 +- 0.8	2

NRC TLD DOSES FOR MILLSTONE AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant..site

MONTICELLO

TLD Direct Radiation Environmental Monitoring

For the period 961210-970410 122 Days

Field Time: 89 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	133	3.6	16.4	+- 0.5; 2.5	14.2	+- 0.6; 3.8	16.7	+- 1.2
2	163	4.6	15.8	+- 0.5; 2.4	13.5	+- 0.6; 3.7	17.5	+- 1.1
3	183	4.1	15.8	+- 0.5; 2.4	13.6	+- 0.6; 3.7	17.9	+- 1.2
4	206	4.3	16.3	+- 0.5; 2.4	14.1	+- 0.6; 3.7	17.6	+- 1.2
5	230	4.2	14.8	+- 0.4; 2.2	12.6	+- 0.5; 3.6	19.1	+- 1.6
6	253	4.6	16.3	+- 0.5; 2.4	14.0	+- 0.6; 3.7	17.8	+- 1.4
7	269	4.4	15.4	+- 0.5; 2.3	13.1	+- 0.6; 3.6	17.1	+- 1.3
8	286	4.0	16.6	+- 0.5; 2.5	14.4	+- 0.6; 3.8	18.0	+- 1.3
9	274	1.9	17.0	+- 0.5; 2.6	14.8	+- 0.6; 3.8	17.1	+- 1.2
10	244	1.3	15.9	+- 0.5; 2.4	13.7	+- 0.6; 3.7	15.4	+- 1.2
11	226	0.9	15.1	+- 0.5; 2.3	12.8	+- 0.5; 3.6	16.9	+- 1.2
12	181	1.8	15.7	+- 0.5; 2.4	13.4	+- 0.6; 3.7	17.1	+- 1.3
13	137	1.7	15.6	+- 0.5; 2.3	13.4	+- 0.6; 3.7	16.9	+- 1.2
14	155	1.0	15.9	+- 0.5; 2.4	13.7	+- 0.6; 3.7	17.2	+- 1.0
15	208	0.6	15.6	+- 0.5; 2.3	13.4	+- 0.6; 3.7	16.6	+- 1.1
16	284	2.0	17.0	+- 0.5; 2.5	14.8	+- 0.6; 3.8	16.5	+- 1.0
17	113	1.6	16.1	+- 0.5; 2.4	13.9	+- 0.6; 3.7	17.2	+- 1.2
18	85	1.1	16.9	+- 0.5; 2.5	14.7	+- 0.6; 3.8	16.6	+- 1.2
19	63	1.2	15.7	+- 0.5; 2.4	13.4	+- 0.6; 3.7	16.9	+- 1.3
20	37	1.7	16.7	+- 0.5; 2.5	14.4	+- 0.6; 3.8	17.0	+- 1.0
21	23	0.8	16.2	+- 0.5; 2.4	14.0	+- 0.6; 3.7	16.9	+- 1.2
22	354	0.7	16.7	+- 0.5; 2.5	14.5	+- 0.6; 3.8	17.3	+- 1.2
23	338	0.8	16.5	+- 0.5; 2.5	14.3	+- 0.6; 3.8	17.1	+- 1.4
24	307	1.8	16.1	+- 0.5; 2.4	13.9	+- 0.6; 3.7	17.0	+- 1.1
25	339	4.1	17.5	+- 0.5; 2.6	15.3	+- 0.6; 3.9	16.6	+- 1.2
26	320	6.0	15.6	+- 0.5; 2.3	13.3	+- 0.6; 3.7	16.8	+- 1.1
27	354	4.5	14.8	+- 0.4; 2.2	12.5	+- 0.5; 3.6	16.9	+- 1.4
28	17	3.7	14.8	+- 0.4; 2.2	12.5	+- 0.5; 3.6	15.9	+- 1.3
29	50	4.0	15.6	+- 0.5; 2.3	13.3	+- 0.6; 3.7	15.8	+- 1.4
30	77	3.6	16.1	+- 0.5; 2.4	13.8	+- 0.6; 3.7	16.9	+- 1.2
31	115	3.3	16.3	+- 0.5; 2.4	14.1	+- 0.6; 3.7	16.6	+- 1.2
32	90	4.6	15.9	+- 0.5; 2.4	13.6	+- 0.6; 3.7	15.6	+- 1.7
33	323	16.0	15.5	+- 0.5; 2.3	13.3	+- 0.6; 3.7	16.6	+- 1.3
34	323	16.0	15.5	+- 0.5; 2.3	13.2	+- 0.6; 3.7	16.5	+- 1.1
35	323	16.0	Missing Dosimeter		No Net Data		17.2	+- 1.3

Transit Dose = 2.4 +- 0.3; 2.8

MONTICELLO

For the period 961210-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	13.5 +- 1.4	2
11.26 - 33.75 NNE	13.2 +- 1.0	2
33.76 - 56.25 NE	13.9 +- 0.8	2
56.26 - 78.75 ENE	13.6 +- 0.3	2
78.76 - 101.25 E	14.1 +- 0.7	2
101.26 - 123.75 ESE	14.0 +- 0.2	2
123.76 - 146.25 SE	13.8 +- 0.6	2
146.26 - 168.75 SSE	13.6 +- 0.1	2
168.76 - 191.25 S	13.5 +- 0.1	2
191.26 - 213.75 SSW	13.7 +- 0.5	2
213.76 - 236.25 SW	12.7 +- 0.2	2
236.26 - 258.75 WSW	13.8 +- 0.3	2
258.76 - 281.25 W	14.0 +- 1.2	2
281.26 - 303.75 WNW	14.6 +- 0.3	2
303.76 - 326.25 NW	13.6 +- 0.4	2
326.26 - 348.75 NNW	14.8 +- 0.7	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	13.9 +- 0.6	16
2 - 5	13.6 +- 0.8	15
> 5	13.3 +- 0.0	1
Upwind Control	13.3 +- 0.0	2

NRC TLD DOSES FOR MONTICELLO AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant site

NORTH ANNA

TLD Direct Radiation Environmental Monitoring

For the period 961210-970415 127 Days

Field Time: 90 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev
1	243	1.8	23.6	+- 0.7; 3.5	20.3	+- 0.8; 4.6	21.1 +- 1.4
2	263	1.6	19.7	+- 0.6; 3.0	16.4	+- 0.7; 4.1	17.7 +- 1.1
3	296	1.0	19.6	+- 0.6; 2.9	16.2	+- 0.7; 4.1	17.8 +- 1.2
4	311	1.3	24.4	+- 0.7; 3.7	21.0	+- 0.8; 4.7	22.3 +- 1.3
5	329	1.3	21.0	+- 0.6; 3.1	17.6	+- 0.7; 4.3	18.9 +- 1.1
6	231	3.9	23.4	+- 0.7; 3.5	20.1	+- 0.8; 4.5	20.6 +- 1.2
7	224	1.7	22.6	+- 0.7; 3.4	19.3	+- 0.8; 4.5	20.0 +- 1.2
8	210	1.6	20.4	+- 0.6; 3.1	17.1	+- 0.7; 4.2	18.2 +- 1.2
9	181	1.4	18.7	+- 0.6; 2.8	15.4	+- 0.6; 4.0	16.0 +- 1.1
10	155	1.0	26.7	+- 0.8; 4.0	23.4	+- 0.9; 4.9	23.8 +- 1.4
11	136	1.6	21.3	+- 0.6; 3.2	18.0	+- 0.7; 4.3	18.2 +- 1.4
12	163	3.5	22.1	+- 0.7; 3.3	18.7	+- 0.7; 4.4	19.2 +- 1.1
13	190	3.3	20.9	+- 0.6; 3.1	17.5	+- 0.7; 4.3	17.6 +- 1.2
14	205	4.9	18.6	+- 0.6; 2.8	15.3	+- 0.6; 4.0	16.8 +- 1.1
15	140	4.2	21.2	+- 0.6; 3.2	17.8	+- 0.7; 4.3	19.1 +- 1.1
16	113	4.9	24.7	+- 0.7; 3.7	21.4	+- 0.8; 4.7	22.8 +- 1.4
17	93	3.3	18.7	+- 0.6; 2.8	15.4	+- 0.6; 4.0	16.1 +- 1.0
18	64	4.1	21.6	+- 0.6; 3.2	18.3	+- 0.7; 4.3	19.4 +- 1.2
19	78	2.7	30.9	+- 0.9; 4.6	27.5	+- 1.0; 5.5	29.0 +- 1.2
20	97	1.9	24.8	+- 0.7; 3.7	21.5	+- 0.8; 4.7	20.6 +- 1.7
21	105	1.7	19.8	+- 0.6; 3.0	16.4	+- 0.7; 4.1	16.7 +- 1.0
22	60	2.4	19.6	+- 0.6; 2.9	16.2	+- 0.7; 4.1	17.2 +- 1.1
23	37	1.4	21.1	+- 0.6; 3.2	17.7	+- 0.7; 4.3	18.9 +- 1.3
24	16	1.6	25.9	+- 0.8; 3.9	22.5	+- 0.8; 4.8	24.0 +- 1.2
25	48	3.5	Missing Dosimeter		No Net Data		15.9 +- 1.8
26	17	3.7	21.7	+- 0.7; 3.3	18.4	+- 0.7; 4.3	19.3 +- 1.2
27	3	4.8	20.6	+- 0.6; 3.1	17.3	+- 0.7; 4.2	17.3 +- 1.2
28	348	4.0	21.2	+- 0.6; 3.2	17.8	+- 0.7; 4.3	17.3 +- 1.1
29	2	1.9	19.6	+- 0.6; 2.9	16.3	+- 0.7; 4.1	16.8 +- 1.0
30	284	5.0	18.8	+- 0.6; 2.8	15.5	+- 0.7; 4.0	17.0 +- 1.4
31	310	4.7	22.1	+- 0.7; 3.3	18.8	+- 0.7; 4.4	20.1 +- 1.3
32	273	4.9	17.5	+- 0.5; 2.6	14.2	+- 0.6; 3.9	14.6 +- 1.7
33	257	5.1	20.1	+- 0.6; 3.0	16.8	+- 0.7; 4.2	18.4 +- 1.4
34	242	7.1	20.1	+- 0.6; 3.0	16.8	+- 0.7; 4.2	19.1 +- 1.4
35	255	11.0	20.5	+- 0.6; 3.1	17.2	+- 0.7; 4.2	18.2 +- 1.6
36	248	15.0	21.1	+- 0.6; 3.2	17.8	+- 0.7; 4.3	18.4 +- 1.2
37	247	17.0	20.8	+- 0.6; 3.1	17.5	+- 0.7; 4.2	17.8 +- 1.1
38	244	19.0	19.1	+- 0.6; 2.9	15.7	+- 0.7; 4.1	16.9 +- 1.5

Transit Dose = 3.3 +- 0.3; 2.9

NORTH ANNA

For the period 961210-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.8 +- 0.7	2
11.26 - 33.75 NNE	20.4 +- 3.0	2
33.76 - 56.25 NE	17.7 +- 0.0	1
56.26 - 78.75 ENE	20.7 +- 6.0	3
78.76 - 101.25 E	18.4 +- 4.3	2
101.26 - 123.75 ESE	18.9 +- 3.5	2
123.76 - 146.25 SE	17.9 +- 0.1	2
146.26 - 168.75 SSE	21.0 +- 3.3	2
168.76 - 191.25 S	16.4 +- 1.5	2
191.26 - 213.75 SSW	16.2 +- 1.3	2
213.76 - 236.25 SW	19.7 +- 0.6	2
236.26 - 258.75 WSW	17.7 +- 1.7	4
258.76 - 281.25 W	15.3 +- 1.5	2
281.26 - 303.75 WNW	15.9 +- 0.5	2
303.76 - 326.25 NW	19.9 +- 1.6	2
326.26 - 348.75 NNW	17.7 +- 0.1	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	18.6 +- 2.6	15
2 - 5	18.1 +- 3.1	16
> 5	16.9 +- 0.2	3
Upwind Control	17.0 +- 1.1	3

NRC TLD DOSES FOR NORTH ANNA AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

OCONEE

TLD Direct Radiation Environmental Monitoring

For the period 961211-970417 128 Days

Field Time: 92 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	158	7.5	27.1 +- 0.8; 4.1		19.9 +- 0.9; 5.1		22.2 +- 1.9	
2	133	4.9	29.7 +- 0.9; 4.4		22.4 +- 1.0; 5.4		25.1 +- 1.6	
3	119	4.3	30.1 +- 0.9; 4.5		22.9 +- 1.0; 5.4		24.5 +- 1.5	
4	84	4.7	29.0 +- 0.9; 4.3		21.8 +- 0.9; 5.3		24.6 +- 1.2	
5	65	4.0	28.8 +- 0.9; 4.3		21.6 +- 0.9; 5.3		23.5 +- 1.5	
6	52	1.8	29.3 +- 0.9; 4.4		22.1 +- 1.0; 5.3		24.5 +- 1.7	
7	22	3.5	28.7 +- 0.9; 4.3		21.5 +- 0.9; 5.3		24.8 +- 1.4	
8	33	1.4	30.3 +- 0.9; 4.6		23.1 +- 1.0; 5.5		24.8 +- 1.4	
9	52	1.8	24.4 +- 0.7; 3.7		17.3 +- 0.8; 4.8		19.5 +- 1.3	
10	67	1.1	24.7 +- 0.7; 3.7		17.5 +- 0.8; 4.8		17.7 +- 2.2	
11	107	1.9	24.4 +- 0.7; 3.7		17.3 +- 0.8; 4.8		18.9 +- 1.2	
12	87	1.0	26.9 +- 0.8; 4.0		19.8 +- 0.9; 5.1		21.8 +- 1.4	
13	142	0.7	28.2 +- 0.8; 4.2		21.0 +- 0.9; 5.2		22.6 +- 1.3	
14	166	0.7	22.3 +- 0.7; 3.4		15.3 +- 0.8; 4.6		18.9 +- 2.3	
15	226	1.7	26.0 +- 0.8; 3.9		18.8 +- 0.9; 5.0		21.6 +- 1.2	
16	207	1.4	25.8 +- 0.8; 3.9		18.6 +- 0.9; 4.9		21.2 +- 1.1	
17	182	2.2	22.3 +- 0.7; 3.3		15.2 +- 0.8; 4.6		18.1 +- 1.5	
18	186	3.8	24.6 +- 0.7; 3.7		17.4 +- 0.8; 4.8		19.3 +- 1.2	
19	155	4.1	27.2 +- 0.8; 4.1		20.0 +- 0.9; 5.1		23.6 +- 1.0	
20	203	8.4	22.4 +- 0.7; 3.4		15.3 +- 0.8; 4.6		18.0 +- 1.8	
21	210	4.6	23.4 +- 0.7; 3.5		16.3 +- 0.8; 4.7		18.9 +- 1.2	
22	227	4.8	27.1 +- 0.8; 4.1		19.9 +- 0.9; 5.1		21.5 +- 2.6	
23	240	3.6	25.0 +- 0.8; 3.8		17.9 +- 0.8; 4.9		19.5 +- 2.0	
24	268	3.6	27.5 +- 0.8; 4.1		20.3 +- 0.9; 5.1		23.7 +- 1.2	
25	257	1.9	23.5 +- 0.7; 3.5		16.4 +- 0.8; 4.7		18.6 +- 1.4	
26	293	3.6	26.3 +- 0.8; 3.9		19.1 +- 0.9; 5.0		21.0 +- 1.5	
27	311	3.5	Damaged Dosimeter		No Net Data		17.7 +- 0.9	
28	288	2.0	26.4 +- 0.8; 4.0		19.2 +- 0.9; 5.0		19.8 +- 1.3	
29	275	1.8	25.0 +- 0.8; 3.8		17.9 +- 0.8; 4.9		18.9 +- 1.1	
30	321	1.8	27.0 +- 0.8; 4.1		19.8 +- 0.9; 5.1		21.6 +- 1.2	
31	344	2.0	21.9 +- 0.7; 3.3		14.8 +- 0.8; 4.5		17.0 +- 1.2	
32	336	3.7	33.8 +- 1.0; 5.1		26.5 +- 1.1; 5.9		25.7 +- 1.8	
33	358	4.5	31.6 +- 0.9; 4.7		24.3 +- 1.0; 5.6		21.0 +- 1.7	
34	256	9.4	32.8 +- 1.0; 4.9		25.5 +- 1.1; 5.8		27.3 +- 1.6	
35	149	21.0	26.9 +- 0.8; 4.0		19.7 +- 0.9; 5.1		22.6 +- 1.5	
36	126	8.2	30.8 +- 0.9; 4.6		23.5 +- 1.0; 5.5		24.2 +- 1.5	
37	96	9.7	30.1 +- 0.9; 4.5		22.8 +- 1.0; 5.4		24.2 +- 1.2	
38	32	16.0	36.2 +- 1.1; 5.4		28.8 +- 1.1; 6.2		30.2 +- 1.9	
39	31	16.0	29.3 +- 0.9; 4.4		22.1 +- 1.0; 5.3		25.1 +- 1.7	
40	29	16.0	32.2 +- 1.0; 4.8		24.9 +- 1.0; 5.7		26.9 +- 1.6	

Transit Dose = 6.7 +- 0.4; 3.3

OCONEE

For the period 961211-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	24.3 +- 0.0	1
348.76 - 11.25 N	24.3 +- 0.0	1
11.26 - 33.75 NNE	22.3 +- 1.1	2
33.76 - 56.25 NE	19.7 +- 3.4	2
56.26 - 78.75 ENE	19.6 +- 2.9	2
78.76 - 101.25 E	21.5 +- 1.6	3
101.26 - 123.75 ESE	20.1 +- 4.0	2
123.76 - 146.25 SE	22.3 +- 1.3	3
146.26 - 168.75 SSE	18.7 +- 2.3	4
168.76 - 191.25 S	16.3 +- 1.6	2
191.26 - 213.75 SSW	16.7 +- 1.7	3
213.76 - 236.25 SW	19.4 +- 0.7	2
236.26 - 258.75 WSW	19.9 +- 4.9	3
258.76 - 281.25 W	19.1 +- 1.7	2
281.26 - 303.75 WNW	19.2 +- 0.1	2
303.76 - 326.25 NW	19.8 +- 0.0	1
326.26 - 348.75 NNW	20.7 +- 8.2	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	18.6 +- 2.3	15
2 - 5	20.5 +- 3.0	15
> 5	21.1 +- 3.6	6
Upwind Control	25.3 +- 3.4	3

NRC TLD DOSES FOR OCONEE AREA

Miles

0 2 4

Legend

Water

Highways

--- Railroads

--- Roads

Plant..site

OYSTER CREEK

TLD Direct Radiation Environmental Monitoring

For the period 961212-970415 125 Days

Field Time: 91 Days

NRC Sta	Location		Gross		Net Exposure Rate			Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.			Net Exp Rate +-1 Std Dev	
1	141	0.5	13.8 +- 0.4; 2.1		9.3 +- 0.5; 3.6			11.4 +- 1.1	
2	120	0.9	13.6 +- 0.4; 2.0		9.1 +- 0.5; 3.6			11.2 +- 1.0	
3	105	1.5	15.4 +- 0.5; 2.3		10.9 +- 0.6; 3.7			12.2 +- 0.7	
4	127	1.5	13.9 +- 0.4; 2.1		9.4 +- 0.5; 3.6			11.1 +- 0.7	
5	137	1.3	15.3 +- 0.5; 2.3		10.7 +- 0.6; 3.7			11.8 +- 1.1	
6	158	1.2	14.7 +- 0.4; 2.2		10.2 +- 0.6; 3.7			11.4 +- 0.6	
7	176	2.2	16.1 +- 0.5; 2.4		11.6 +- 0.6; 3.8			12.1 +- 0.9	
8	179	1.6	14.6 +- 0.4; 2.2		10.1 +- 0.6; 3.7			11.8 +- 0.7	
9	159	2.8	14.1 +- 0.4; 2.1		9.6 +- 0.5; 3.6			10.6 +- 0.7	
10	187	8.4	14.4 +- 0.4; 2.2		9.9 +- 0.6; 3.7			11.7 +- 0.9	
11	173	4.4	15.3 +- 0.5; 2.3		10.8 +- 0.6; 3.7			11.6 +- 0.8	
12	196	4.2	14.9 +- 0.4; 2.2		10.4 +- 0.6; 3.7			11.8 +- 0.8	
13	198	8.6	14.4 +- 0.4; 2.2		9.9 +- 0.6; 3.7			10.9 +- 0.6	
14	185	10.0	15.5 +- 0.5; 2.3		11.0 +- 0.6; 3.8			13.3 +- 0.9	
15	171	11.0	14.0 +- 0.4; 2.1		9.5 +- 0.5; 3.6			11.5 +- 0.9	
16	154	8.2	16.1 +- 0.5; 2.4		11.6 +- 0.6; 3.8			11.9 +- 0.8	
17	126	6.3	16.1 +- 0.5; 2.4		11.6 +- 0.6; 3.8			12.5 +- 0.9	
18	220	4.6	16.0 +- 0.5; 2.4		11.5 +- 0.6; 3.8			11.3 +- 1.0	
19	231	2.3	14.0 +- 0.4; 2.1		9.5 +- 0.5; 3.6			11.4 +- 0.7	
20	211	1.6	14.5 +- 0.4; 2.2		10.0 +- 0.6; 3.7			10.9 +- 0.5	
22	258	1.5	14.1 +- 0.4; 2.1		9.6 +- 0.5; 3.6			11.4 +- 0.7	
23	271	1.2	14.5 +- 0.4; 2.2		10.0 +- 0.6; 3.7			10.9 +- 0.8	
24	297	1.3	14.4 +- 0.4; 2.2		9.9 +- 0.6; 3.7			11.6 +- 1.0	
25	318	1.5	14.0 +- 0.4; 2.1		9.5 +- 0.5; 3.6			10.7 +- 0.7	
26	341	3.2	15.6 +- 0.5; 2.3		11.1 +- 0.6; 3.8			13.0 +- 1.1	
27	330	4.6	15.7 +- 0.5; 2.4		11.2 +- 0.6; 3.8			11.9 +- 0.9	
28	358	3.2	14.6 +- 0.4; 2.2		10.1 +- 0.6; 3.7			11.0 +- 0.6	
29	4	1.8	14.4 +- 0.4; 2.2		9.9 +- 0.6; 3.7			11.6 +- 0.7	
30	19	0.8	14.5 +- 0.4; 2.2		10.0 +- 0.6; 3.7			11.5 +- 0.6	
31	69	1.4	15.5 +- 0.5; 2.3		11.0 +- 0.6; 3.8			12.4 +- 1.4	
32	78	2.5	15.8 +- 0.5; 2.4		11.3 +- 0.6; 3.8			10.8 +- 0.8	
33	85	2.2	13.6 +- 0.4; 2.0		9.1 +- 0.5; 3.6			10.8 +- 0.9	
34	38	1.7	14.9 +- 0.4; 2.2		10.4 +- 0.6; 3.7			11.3 +- 0.5	
35	24	1.9	15.1 +- 0.5; 2.3		10.6 +- 0.6; 3.7			12.1 +- 1.0	
36	50	3.0	14.1 +- 0.4; 2.1		9.6 +- 0.5; 3.6			12.0 +- 1.3	
37	46	4.8	13.6 +- 0.4; 2.0		9.1 +- 0.5; 3.6			10.8 +- 1.0	
38	27	4.0	16.7 +- 0.5; 2.5		12.2 +- 0.6; 3.9			12.5 +- 0.6	
39	12	8.9	14.3 +- 0.4; 2.1		9.8 +- 0.6; 3.6			12.2 +- 0.8	
40	10	8.7	15.0 +- 0.4; 2.2		10.5 +- 0.6; 3.7			11.1 +- 0.6	
41	3	9.9	15.0 +- 0.5; 2.3		10.5 +- 0.6; 3.7			11.9 +- 0.8	
42	38	10.0	14.9 +- 0.4; 2.2		10.4 +- 0.6; 3.7			12.1 +- 0.8	
43	46	9.1	16.8 +- 0.5; 2.5		12.3 +- 0.6; 3.9			14.1 +- 0.7	
44	73	6.5	13.5 +- 0.4; 2.0		9.0 +- 0.5; 3.6			10.9 +- 0.5	
45	79	6.0	15.6 +- 0.5; 2.3		11.1 +- 0.6; 3.8			12.2 +- 0.6	
46	278	20.0	15.8 +- 0.5; 2.4		11.3 +- 0.6; 3.8			12.4 +- 0.6	
47	278	20.0	Missing Dosimeter		No Net Data			12.5 +- 0.5	

Transit Dose = 4.4 +- 0.4; 3.0

OYSTER CREEK
For the period 961212-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	10.2 +- 0.3	4
11.26 - 33.75 NNE	10.7 +- 1.1	4
33.76 - 56.25 NE	10.4 +- 1.2	5
56.26 - 78.75 ENE	10.4 +- 1.3	3
78.76 - 101.25 E	10.1 +- 1.4	2
101.26 - 123.75 ESE	10.0 +- 1.3	2
123.76 - 146.25 SE	10.3 +- 1.1	4
146.26 - 168.75 SSE	10.5 +- 1.0	3
168.76 - 191.25 S	10.5 +- 0.8	6
191.26 - 213.75 SSW	10.1 +- 0.3	3
213.76 - 236.25 SW	10.5 +- 1.4	2
236.26 - 258.75 WSW	9.6 +- 0.0	1
258.76 - 281.25 W	10.0 +- 0.0	1
281.26 - 303.75 WNW	9.9 +- 0.0	1
303.76 - 326.25 NW	9.5 +- 0.0	1
326.26 - 348.75 NNW	11.1 +- 0.1	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	10.0 +- 0.6	17
2 - 5	10.5 +- 1.0	14
> 5	10.6 +- 0.9	13
Upwind Control	11.3 +- 0.0	1

NRC TLD DOSES FOR OYSTER CREEK AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

PALISADES

TLD Direct Radiation Environmental Monitoring

For the period 961210-970429 141 Days

Field Time: 98 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	195 4.9	16.1 +- 0.5; 2.4	11.1 +- 0.6; 3.7	12.8 +- 0.9
2	173 4.6	18.3 +- 0.5; 2.7	13.0 +- 0.6; 3.9	13.2 +- 0.9
3	156 3.9	18.8 +- 0.6; 2.8	13.6 +- 0.6; 3.9	14.4 +- 1.1
4	132 4.6	17.3 +- 0.5; 2.6	12.2 +- 0.6; 3.8	13.6 +- 1.1
5	118 3.3	18.8 +- 0.6; 2.8	13.5 +- 0.6; 3.9	14.4 +- 1.1
6	152 1.8	18.6 +- 0.6; 2.8	13.4 +- 0.6; 3.9	13.1 +- 1.1
7	196 2.2	17.5 +- 0.5; 2.6	12.3 +- 0.6; 3.8	12.8 +- 0.9
8	178 1.6	17.4 +- 0.5; 2.6	12.2 +- 0.6; 3.8	13.6 +- 1.4
9	200 0.9	16.9 +- 0.5; 2.5	11.8 +- 0.6; 3.7	13.3 +- 1.1
10	124 1.8	18.7 +- 0.6; 2.8	13.4 +- 0.6; 3.9	13.4 +- 1.8
11	107 1.6	18.8 +- 0.6; 2.8	13.5 +- 0.6; 3.9	14.1 +- 1.3
12	90 1.5	Missing Dosimeter	No Net Data	12.8 +- 1.1
13	65 1.7	16.8 +- 0.5; 2.5	11.7 +- 0.6; 3.7	13.6 +- 1.3
14	51 1.9	Missing Dosimeter	No Net Data	13.3 +- 1.0
15	74 3.7	16.9 +- 0.5; 2.5	11.8 +- 0.6; 3.7	12.4 +- 1.2
16	90 3.6	18.8 +- 0.6; 2.8	13.5 +- 0.6; 3.9	12.3 +- 1.4
17	98 10.0	18.6 +- 0.6; 2.8	13.3 +- 0.6; 3.9	14.5 +- 1.1
18	47 4.5	19.9 +- 0.6; 3.0	14.5 +- 0.6; 4.0	15.2 +- 0.9
19	23 1.5	18.8 +- 0.6; 2.8	13.6 +- 0.6; 3.9	12.5 +- 1.3
20	32 4.8	19.6 +- 0.6; 2.9	14.2 +- 0.6; 4.0	15.1 +- 1.3
21	29 7.0	17.9 +- 0.5; 2.7	12.7 +- 0.6; 3.8	14.2 +- 0.9
22	99 15.0	19.2 +- 0.6; 2.9	13.9 +- 0.6; 3.9	14.5 +- 0.9
23	98 18.0	19.4 +- 0.6; 2.9	14.1 +- 0.6; 4.0	14.6 +- 1.0
24	98 18.0	18.8 +- 0.6; 2.8	13.5 +- 0.6; 3.9	14.3 +- 1.0

Transit Dose = 4.1 +- 0.4; 3.2

PALISADES

For the period 961210-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	13.5 +- 0.8	3
33.76 - 56.25 NE	14.5 +- 0.0	1
56.26 - 78.75 ENE	11.7 +- 0.0	2
78.76 - 101.25 E	13.4 +- 0.2	2
101.26 - 123.75 ESE	13.5 +- 0.0	2
123.76 - 146.25 SE	12.8 +- 0.9	2
146.26 - 168.75 SSE	13.5 +- 0.2	2
168.76 - 191.25 S	12.6 +- 0.6	2
191.26 - 213.75 SSW	11.7 +- 0.6	3
213.76 - 236.25 SW	No Data +- No Data	0
236.26 - 258.75 WSW	No Data +- No Data	0
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	12.8 +- 0.9	7
2 - 5	13.0 +- 1.1	10
> 5	13.0 +- 0.5	2
Upwind Control	13.8 +- 0.3	3

NRC TLD DOSES FOR PALISADES AREA

Miles

0 2 4

Legend

Water

Highways

--- Railroads

--- Roads

Plant..site

PALO VERDE

TLD Direct Radiation Environmental Monitoring

For the period 961205-970416 133 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	74 23.0	25.8 +- 0.8; 3.9	21.6 +- 0.8; 4.8	20.1 +- 1.2
2	92 21.0	25.7 +- 0.8; 3.9	21.5 +- 0.8; 4.8	20.6 +- 1.4
3	89 15.0	25.8 +- 0.8; 3.9	21.6 +- 0.8; 4.8	20.2 +- 1.4
4	103 11.0	25.6 +- 0.8; 3.8	21.4 +- 0.8; 4.7	20.1 +- 1.2
5	140 7.4	27.3 +- 0.8; 4.1	23.0 +- 0.9; 4.9	21.7 +- 1.4
6	142 3.1	26.9 +- 0.8; 4.0	22.7 +- 0.9; 4.9	20.7 +- 1.4
7	162 2.6	24.8 +- 0.7; 3.7	20.6 +- 0.8; 4.7	20.6 +- 1.3
8	168 2.6	26.4 +- 0.8; 4.0	22.2 +- 0.8; 4.8	21.0 +- 1.4
9	193 2.6	26.6 +- 0.8; 4.0	22.4 +- 0.8; 4.9	22.1 +- 1.1
10	215 3.1	29.5 +- 0.9; 4.4	25.3 +- 0.9; 5.2	22.2 +- 1.4
11	200 1.7	28.0 +- 0.8; 4.2	23.8 +- 0.9; 5.0	22.4 +- 1.3
12	214 1.0	27.8 +- 0.8; 4.2	23.5 +- 0.9; 5.0	21.6 +- 1.3
13	242 0.7	28.8 +- 0.9; 4.3	24.6 +- 0.9; 5.1	23.6 +- 1.4
14	263 0.6	26.5 +- 0.8; 4.0	22.4 +- 0.8; 4.9	21.9 +- 1.5
15	295 0.6	26.8 +- 0.8; 4.0	22.6 +- 0.9; 4.9	21.6 +- 1.4
16	325 1.0	27.3 +- 0.8; 4.1	23.1 +- 0.9; 5.0	21.5 +- 1.3
17	347 1.8	28.7 +- 0.9; 4.3	24.5 +- 0.9; 5.1	22.7 +- 1.7
18	0 2.4	26.1 +- 0.8; 3.9	21.9 +- 0.8; 4.8	22.6 +- 1.2
19	18 1.5	28.6 +- 0.9; 4.3	24.3 +- 0.9; 5.1	20.6 +- 1.6
20	37 2.0	26.2 +- 0.8; 3.9	22.0 +- 0.8; 4.8	21.5 +- 1.0
21	58 2.3	26.8 +- 0.8; 4.0	22.6 +- 0.9; 4.9	22.1 +- 1.3
22	75 2.8	28.3 +- 0.8; 4.2	24.0 +- 0.9; 5.1	22.8 +- 1.1
23	93 4.4	Missing Dosimeter	No Net Data	22.2 +- 1.4
24	101 3.3	27.7 +- 0.8; 4.2	23.5 +- 0.9; 5.0	21.9 +- 2.1
25	346 2.9	26.8 +- 0.8; 4.0	22.6 +- 0.9; 4.9	21.9 +- 1.4
26	334 4.3	Missing Dosimeter	No Net Data	24.4 +- 1.4
27	333 7.9	31.6 +- 0.9; 4.7	27.3 +- 1.0; 5.5	25.4 +- 2.3
28	0 7.0	28.1 +- 0.8; 4.2	23.9 +- 0.9; 5.0	22.7 +- 1.4
29	9 4.2	27.9 +- 0.8; 4.2	23.7 +- 0.9; 5.0	23.6 +- 1.5
30	27 3.6	26.0 +- 0.8; 3.9	21.8 +- 0.8; 4.8	23.0 +- 1.5
31	49 3.5	30.1 +- 0.9; 4.5	25.9 +- 0.9; 5.3	23.3 +- 1.2
32	120 3.3	29.0 +- 0.9; 4.4	24.8 +- 0.9; 5.2	24.0 +- 1.3

Transit Dose = 3.7 +- 0.3; 3.0

PALO VERDE

For the period 961205-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	23.1 +- 1.1	3
11.26 - 33.75 NNE	23.1 +- 1.8	2
33.76 - 56.25 NE	23.9 +- 2.7	2
56.26 - 78.75 ENE	23.3 +- 1.0	2
78.76 - 101.25 E	23.5 +- 0.0	1
101.26 - 123.75 ESE	23.1 +- 2.4	2
123.76 - 146.25 SE	22.9 +- 0.3	2
146.26 - 168.75 SSE	21.4 +- 1.1	2
168.76 - 191.25 S	No Data +- No Data	0
191.26 - 213.75 SSW	23.1 +- 1.0	2
213.76 - 236.25 SW	24.4 +- 1.2	2
236.26 - 258.75 WSW	24.6 +- 0.0	1
258.76 - 281.25 W	22.4 +- 0.0	1
281.26 - 303.75 WNW	22.6 +- 0.0	1
303.76 - 326.25 NW	23.1 +- 0.0	1
326.26 - 348.75 NNW	24.8 +- 2.4	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	23.4 +- 1.0	9
2 - 5	23.1 +- 1.5	14
> 5	23.9 +- 2.5	4
Upwind Control	21.6 +- 0.1	3

NRC TLD DOSES FOR PALO VERDE AREA

Miles

Legend

- Highways Railroads - - - - Roads ★ Plant..site

PEACH BOTTOM

TLD Direct Radiation Environmental Monitoring

For the period 961209-970410 123 Days

Field Time: 99 Days

NRC Sta	Location		Gross			Net Exposure Rate			Hist. Range	
	Azimuth/Dist	(Deg)/(Mi)	Exposure (mR)			(mR/Std. Qtr.)			Net Exp Rate	+1 Std Dev
			+-Rdm; Tot.			+-Rdm; Tot.				
1	330	10.3	21.0	+-	0.6; 3.2	18.6	+-	0.6; 3.9	16.8	+- 1.7
2	33	10.5	20.1	+-	0.6; 3.0	17.7	+-	0.6; 3.8	17.1	+- 0.9
3	21	4.8	19.1	+-	0.6; 2.9	16.8	+-	0.6; 3.7	17.8	+- 1.4
4	3	5.0	19.2	+-	0.6; 2.9	16.9	+-	0.6; 3.7	16.9	+- 1.0
5	344	4.1	19.3	+-	0.6; 2.9	17.0	+-	0.6; 3.8	17.3	+- 1.0
6	1	2.2	21.6	+-	0.6; 3.2	19.1	+-	0.6; 4.0	19.1	+- 1.0
7	26	2.4	20.0	+-	0.6; 3.0	17.6	+-	0.6; 3.8	18.0	+- 0.9
8	55	2.8	20.3	+-	0.6; 3.1	17.9	+-	0.6; 3.8	18.5	+- 1.0
9	42	2.0	19.3	+-	0.6; 2.9	17.0	+-	0.6; 3.7	17.2	+- 0.9
10	62	1.7	21.0	+-	0.6; 3.2	18.6	+-	0.6; 3.9	18.9	+- 2.0
11	96	1.9	22.2	+-	0.7; 3.3	19.6	+-	0.7; 4.0	19.1	+- 1.1
12	105	2.3	15.9	+-	0.5; 2.4	13.9	+-	0.5; 3.4	14.2	+- 0.9
13	72	5.0	19.6	+-	0.6; 2.9	17.3	+-	0.6; 3.8	17.1	+- 0.8
14	85	4.6	20.5	+-	0.6; 3.1	18.1	+-	0.6; 3.9	18.7	+- 1.0
15	109	4.3	22.0	+-	0.7; 3.3	19.4	+-	0.6; 4.0	19.1	+- 1.0
16	130	4.6	15.4	+-	0.5; 2.3	13.4	+-	0.5; 3.4	13.6	+- 0.8
17	157	8.9	17.9	+-	0.5; 2.7	15.8	+-	0.5; 3.6	15.2	+- 1.0
18	163	4.6	19.3	+-	0.6; 2.9	17.0	+-	0.6; 3.7	16.5	+- 0.8
19	183	3.9	22.8	+-	0.7; 3.4	20.2	+-	0.7; 4.1	19.0	+- 1.1
20	201	4.8	20.2	+-	0.6; 3.0	17.9	+-	0.6; 3.8	18.8	+- 1.4
21	196	2.3	21.2	+-	0.6; 3.2	18.7	+-	0.6; 3.9	19.3	+- 0.8
22	182	1.7	21.7	+-	0.7; 3.3	19.2	+-	0.6; 4.0	18.8	+- 0.9
23	157	1.8	24.7	+-	0.7; 3.7	21.9	+-	0.7; 4.3	21.6	+- 1.3
24	219	1.8	23.5	+-	0.7; 3.5	20.8	+-	0.7; 4.2	21.0	+- 1.1
25	249	1.7	23.0	+-	0.7; 3.5	20.4	+-	0.7; 4.1	20.1	+- 1.3
26	269	1.8	23.9	+-	0.7; 3.6	21.2	+-	0.7; 4.2	20.6	+- 1.2
27	286	1.9	19.3	+-	0.6; 2.9	17.0	+-	0.6; 3.8	17.7	+- 0.9
28	323	1.8	18.3	+-	0.5; 2.7	16.1	+-	0.6; 3.7	15.9	+- 0.8
29	286	3.6	23.8	+-	0.7; 3.6	21.1	+-	0.7; 4.2	21.2	+- 0.9
30	262	4.0	24.3	+-	0.7; 3.6	21.5	+-	0.7; 4.3	21.3	+- 1.2
31	261	9.9	23.0	+-	0.7; 3.5	20.4	+-	0.7; 4.1	21.2	+- 1.1
32	247	3.2	20.5	+-	0.6; 3.1	18.1	+-	0.6; 3.9	18.4	+- 0.9
33	235	3.6	16.3	+-	0.5; 2.4	14.3	+-	0.5; 3.5	14.0	+- 1.3
34	319	4.9	Missing Dosimeter			No Net Data			19.6	+- 1.1
35	149	0.7	19.4	+-	0.6; 2.9	17.1	+-	0.6; 3.8	17.5	+- 1.3
36	147	17.9	Missing Dosimeter			No Net Data			14.2	+- 0.8
37	147	17.9	Missing Dosimeter			No Net Data			14.5	+- 0.9
38	147	17.9	Missing Dosimeter			No Net Data			14.4	+- 0.7

Transit Dose = 0.6 +- 0.3; 2.9

PEACH BOTTOM
For the period 961209-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	18.0 +- 1.5	2
11.26 - 33.75 NNE	17.4 +- 0.5	3
33.76 - 56.25 NE	17.4 +- 0.7	2
56.26 - 78.75 ENE	17.9 +- 0.9	2
78.76 - 101.25 E	18.8 +- 1.1	2
101.26 - 123.75 ESE	16.7 +- 3.9	2
123.76 - 146.25 SE	13.4 +- 0.0	1
146.26 - 168.75 SSE	17.9 +- 2.7	4
168.76 - 191.25 S	19.7 +- 0.7	2
191.26 - 213.75 SSW	18.3 +- 0.6	2
213.76 - 236.25 SW	17.5 +- 4.6	2
236.26 - 258.75 WSW	19.2 +- 1.6	2
258.76 - 281.25 W	21.0 +- 0.6	3
281.26 - 303.75 WNW	19.0 +- 2.9	2
303.76 - 326.25 NW	16.1 +- 0.0	1
326.26 - 348.75 NNW	17.8 +- 1.1	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	19.0 +- 2.0	11
2 - 5	17.7 +- 2.2	19
> 5	18.1 +- 1.9	4
Upwind Control	No Data +- No Data	0

NRC TLD DOSES FOR PEACH BOTTOM AREA

Miles

Legend

Water

--- Railroads

Plant..site

Highways

--- Roads

PERRY

TLD Direct Radiation Environmental Monitoring

For the period 961210-970429 141 Days

Field Time: 91 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	72 5.0	20.8 +- 0.6; 3.1	14.7 +- 0.7; 4.4	16.1 +- 1.6
3	88 5.5	20.6 +- 0.6; 3.1	14.4 +- 0.7; 4.4	16.2 +- 1.8
4	112 6.0	21.1 +- 0.6; 3.2	15.0 +- 0.7; 4.4	17.1 +- 1.8
5	130 4.0	21.0 +- 0.6; 3.2	14.9 +- 0.7; 4.4	16.7 +- 1.9
6	155 5.0	23.3 +- 0.7; 3.5	17.1 +- 0.8; 4.7	19.9 +- 1.3
7	178 5.2	22.8 +- 0.7; 3.4	16.7 +- 0.8; 4.6	17.7 +- 1.4
8	205 4.6	20.5 +- 0.6; 3.1	14.4 +- 0.7; 4.4	17.2 +- 3.0
9	220 5.2	20.7 +- 0.6; 3.1	14.6 +- 0.7; 4.4	16.3 +- 1.4
10	225 7.4	21.4 +- 0.6; 3.2	15.3 +- 0.8; 4.4	17.3 +- 1.6
11	240 5.8	23.5 +- 0.7; 3.5	17.3 +- 0.8; 4.7	19.0 +- 1.6
12	225 19.0	20.7 +- 0.6; 3.1	14.5 +- 0.7; 4.4	16.6 +- 2.1
13	225 19.0	20.6 +- 0.6; 3.1	14.5 +- 0.7; 4.4	15.8 +- 1.6
14	212 12.0	26.3 +- 0.8; 3.9	20.1 +- 0.9; 5.0	22.2 +- 1.9
15	248 1.4	21.2 +- 0.6; 3.2	15.1 +- 0.7; 4.4	15.8 +- 1.5
16	225 0.8	19.6 +- 0.6; 2.9	13.5 +- 0.7; 4.3	15.7 +- 1.8
17	205 0.7	19.4 +- 0.6; 2.9	13.3 +- 0.7; 4.2	14.2 +- 1.6
18	180 0.8	20.0 +- 0.6; 3.0	13.9 +- 0.7; 4.3	15.6 +- 1.7
19	152 1.8	21.0 +- 0.6; 3.1	14.8 +- 0.7; 4.4	16.0 +- 1.2
20	123 1.6	19.2 +- 0.6; 2.9	13.1 +- 0.7; 4.2	14.2 +- 1.4
21	105 1.4	25.3 +- 0.8; 3.8	19.1 +- 0.9; 4.9	15.4 +- 2.0
22	85 1.2	21.4 +- 0.6; 3.2	15.2 +- 0.7; 4.4	16.2 +- 2.2
23	65 1.4	21.3 +- 0.6; 3.2	15.1 +- 0.7; 4.4	16.2 +- 1.5
24	40 0.6	20.4 +- 0.6; 3.1	14.3 +- 0.7; 4.3	15.6 +- 1.6
25	40 0.6	20.3 +- 0.6; 3.0	14.1 +- 0.7; 4.3	18.1 +- 3.5
26	182 2.8	20.7 +- 0.6; 3.1	14.6 +- 0.7; 4.4	16.4 +- 2.2
27	175 2.8	Missing Dosimeter	No Net Data	17.2 +- 3.1

Transit Dose = 6.0 +- 0.4; 3.1

PERRY

For the period 961210-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	14.2 +- 0.1	2
56.26 - 78.75 ENE	14.9 +- 0.3	2
78.76 - 101.25 E	14.8 +- 0.6	2
101.26 - 123.75 ESE	15.7 +- 3.1	3
123.76 - 146.25 SE	14.9 +- 0.0	1
146.26 - 168.75 SSE	16.0 +- 1.6	2
168.76 - 191.25 S	15.0 +- 1.5	3
191.26 - 213.75 SSW	13.8 +- 0.8	2
213.76 - 236.25 SW	14.4 +- 0.9	3
236.26 - 258.75 WSW	16.2 +- 1.6	2
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	14.7 +- 1.7	11
2 - 5	15.1 +- 1.1	5
> 5	15.5 +- 1.2	6
Upwind Control	16.4 +- 3.2	3

NRC TLD DOSES FOR PERRY AREA

Miles

0 2 4

Legend

Water
Highways

Railroads
Roads

Plant..site

PILGRIM

TLD Direct Radiation Environmental Monitoring

For the period 961212-970415 125 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	288	0.1	77.2	+- 2.3; 11.6	69.0	+- 2.3; 11.8	58.4	+-40.9
2	310	0.2	24.9	+- 0.7; 3.7	17.8	+- 0.8; 4.8	16.4	+- 2.4
5	289	0.7	24.6	+- 0.7; 3.7	17.6	+- 0.8; 4.8	15.9	+- 1.8
6	261	1.7	23.0	+- 0.7; 3.5	16.0	+- 0.8; 4.6	14.2	+- 1.5
7	270	0.5	25.6	+- 0.8; 3.8	18.5	+- 0.9; 4.9	17.8	+- 1.7
8	247	0.3	24.9	+- 0.7; 3.7	17.8	+- 0.8; 4.8	16.6	+- 1.4
9	224	0.3	24.0	+- 0.7; 3.6	17.0	+- 0.8; 4.7	15.2	+- 2.2
10	205	0.3	25.0	+- 0.8; 3.8	18.0	+- 0.8; 4.8	16.4	+- 3.3
11	184	0.3	26.1	+- 0.8; 3.9	19.0	+- 0.9; 5.0	17.7	+- 2.8
12	159	0.4	22.9	+- 0.7; 3.4	15.9	+- 0.8; 4.6	15.4	+- 1.7
13	146	0.7	20.0	+- 0.6; 3.0	13.1	+- 0.7; 4.3	13.1	+- 1.7
14	155	1.0	21.1	+- 0.6; 3.2	14.2	+- 0.7; 4.4	14.3	+- 1.7
16	136	1.3	20.7	+- 0.6; 3.1	13.8	+- 0.7; 4.4	13.3	+- 1.5
18	212	0.8	19.8	+- 0.6; 3.0	12.9	+- 0.7; 4.3	12.7	+- 1.6
19	232	1.0	19.9	+- 0.6; 3.0	12.9	+- 0.7; 4.3	13.6	+- 1.6
21	256	1.6	20.1	+- 0.6; 3.0	13.1	+- 0.7; 4.3	12.4	+- 1.9
22	130	2.5	21.1	+- 0.6; 3.2	14.1	+- 0.7; 4.4	13.3	+- 2.0
23	146	3.4	21.1	+- 0.6; 3.2	14.1	+- 0.7; 4.4	12.9	+- 1.8
25	168	1.5	21.4	+- 0.6; 3.2	14.4	+- 0.8; 4.5	13.9	+- 1.6
26	180	1.3	20.6	+- 0.6; 3.1	13.7	+- 0.7; 4.4	11.8	+- 1.6
27	231	1.8	21.3	+- 0.6; 3.2	14.4	+- 0.8; 4.5	13.1	+- 1.8
30	153	2.2	23.9	+- 0.7; 3.6	16.9	+- 0.8; 4.7	15.9	+- 1.4
31	179	2.5	21.3	+- 0.6; 3.2	14.3	+- 0.8; 4.5	12.4	+- 1.6
32	217	2.6	19.9	+- 0.6; 3.0	13.0	+- 0.7; 4.3	11.9	+- 1.8
33	234	2.5	20.2	+- 0.6; 3.0	13.2	+- 0.7; 4.3	13.1	+- 2.3
34	320	7.5	20.7	+- 0.6; 3.1	13.7	+- 0.7; 4.4	12.8	+- 1.5
35	318	7.0	18.5	+- 0.6; 2.8	11.6	+- 0.7; 4.2	10.5	+- 1.3
37	264	4.2	22.7	+- 0.7; 3.4	15.7	+- 0.8; 4.6	14.1	+- 1.6
38	152	3.5	20.2	+- 0.6; 3.0	13.3	+- 0.7; 4.3	12.4	+- 1.9
39	155	5.3	19.2	+- 0.6; 2.9	12.3	+- 0.7; 4.2	11.3	+- 1.2
40	272	4.6	23.1	+- 0.7; 3.5	16.1	+- 0.8; 4.6	14.9	+- 1.7
42	281	4.6	20.7	+- 0.6; 3.1	13.7	+- 0.7; 4.4	13.0	+- 1.7
43	291	5.8	24.9	+- 0.7; 3.7	17.8	+- 0.8; 4.8	15.5	+- 1.7
45	197	6.0	19.6	+- 0.6; 2.9	12.7	+- 0.7; 4.3	11.8	+- 1.4
47	301	26.0	23.6	+- 0.7; 3.5	16.6	+- 0.8; 4.7	15.2	+- 1.8
48	301	26.0	24.5	+- 0.7; 3.7	17.5	+- 0.8; 4.8	15.8	+- 2.1
49	301	26.0	22.7	+- 0.7; 3.4	15.7	+- 0.8; 4.6	14.3	+- 1.7

Transit Dose = 6.6 +- 0.4; 3.2

PILGRIM

For the period 961212-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	No Data +- No Data	0
123.76 - 146.25 SE	13.8 +- 0.5	4
146.26 - 168.75 SSE	14.5 +- 1.7	6
168.76 - 191.25 S	15.7 +- 2.9	3
191.26 - 213.75 SSW	14.5 +- 3.0	3
213.76 - 236.25 SW	14.1 +- 1.7	5
236.26 - 258.75 WSW	15.5 +- 3.3	2
258.76 - 281.25 W	16.0 +- 1.7	5
281.26 - 303.75 WNW	34.8 +- 29.6	3
303.76 - 326.25 NW	14.4 +- 3.1	3
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	18.4 +- 12.4	19
2 - 5	14.5 +- 1.4	10
> 5	13.6 +- 2.5	5
Upwind Control	16.6 +- 0.9	3

NRC TLD DOSES FOR PILGRIM AREA

Miles

0 1 2

Legend

Water

Highways

Railroads

Roads

Plant..site

PRAIRIE ISLAND

TLD Direct Radiation Environmental Monitoring

For the period 961210-970414 126 Days

Field Time: 89 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	312	16.5	15.8 +- 0.5; 2.4		12.4 +- 0.6; 3.8		17.1 +- 2.0	
2	310	15.0	17.7 +- 0.5; 2.7		14.3 +- 0.6; 4.0		16.6 +- 1.7	
3	310	15.0	17.6 +- 0.5; 2.6		14.2 +- 0.6; 4.0		16.5 +- 1.8	
4	308	5.5	17.9 +- 0.5; 2.7		14.5 +- 0.6; 4.0		17.3 +- 1.6	
5	297	4.1	16.6 +- 0.5; 2.5		13.1 +- 0.6; 3.8		16.1 +- 1.6	
6	287	1.3	18.1 +- 0.5; 2.7		14.6 +- 0.6; 4.0		16.2 +- 2.0	
7	313	0.8	16.1 +- 0.5; 2.4		12.6 +- 0.6; 3.8		15.0 +- 1.6	
8	244	0.5	18.5 +- 0.6; 2.8		15.0 +- 0.7; 4.0		16.2 +- 1.5	
9	194	0.6	17.6 +- 0.5; 2.6		14.1 +- 0.6; 3.9		16.7 +- 1.4	
10	155	0.5	18.2 +- 0.5; 2.7		14.7 +- 0.6; 4.0		17.5 +- 1.6	
11	129	1.6	17.6 +- 0.5; 2.6		14.1 +- 0.6; 3.9		15.5 +- 1.6	
12	153	1.4	17.9 +- 0.5; 2.7		14.4 +- 0.6; 4.0		16.2 +- 1.4	
13	217	0.6	18.2 +- 0.5; 2.7		14.7 +- 0.6; 4.0		16.8 +- 1.6	
14	178	0.8	17.9 +- 0.5; 2.7		14.4 +- 0.6; 4.0		16.6 +- 1.5	
15	272	1.9	18.4 +- 0.6; 2.8		14.9 +- 0.6; 4.0		15.6 +- 1.6	
16	262	4.6	16.4 +- 0.5; 2.5		12.9 +- 0.6; 3.8		17.9 +- 2.2	
17	250	4.3	17.5 +- 0.5; 2.6		14.0 +- 0.6; 3.9		17.5 +- 1.7	
18	225	4.1	15.5 +- 0.5; 2.3		12.0 +- 0.6; 3.7		17.9 +- 3.0	
19	233	6.7	16.7 +- 0.5; 2.5		13.3 +- 0.6; 3.9		15.3 +- 1.7	
20	200	4.9	18.9 +- 0.6; 2.8		15.4 +- 0.7; 4.1		18.9 +- 1.8	
21	187	4.7	17.7 +- 0.5; 2.6		14.2 +- 0.6; 4.0		19.5 +- 1.9	
22	160	4.4	16.7 +- 0.5; 2.5		13.2 +- 0.6; 3.9		17.5 +- 1.9	
23	140	4.7	17.8 +- 0.5; 2.7		14.3 +- 0.6; 4.0		18.1 +- 1.8	
24	131	6.6	18.9 +- 0.6; 2.8		15.4 +- 0.7; 4.1		17.7 +- 1.7	
25	117	4.9	17.4 +- 0.5; 2.6		13.9 +- 0.6; 3.9		16.4 +- 1.5	
26	88	1.9	17.9 +- 0.5; 2.7		14.5 +- 0.6; 4.0		16.6 +- 1.7	
27	69	1.8	16.0 +- 0.5; 2.4		12.5 +- 0.6; 3.8		16.6 +- 2.0	
28	47	1.6	17.0 +- 0.5; 2.5		13.5 +- 0.6; 3.9		17.0 +- 2.0	
29	19	1.5	17.0 +- 0.5; 2.5		13.5 +- 0.6; 3.9		15.9 +- 1.8	
30	356	1.9	16.6 +- 0.5; 2.5		13.1 +- 0.6; 3.8		16.1 +- 2.0	
31	346	2.4	18.2 +- 0.5; 2.7		14.7 +- 0.6; 4.0		18.6 +- 1.6	
32	340	3.8	17.6 +- 0.5; 2.6		14.1 +- 0.6; 3.9		18.9 +- 2.1	
33	8	4.6	18.9 +- 0.6; 2.8		15.4 +- 0.7; 4.1		19.4 +- 1.9	
34	17	4.7	17.1 +- 0.5; 2.6		13.6 +- 0.6; 3.9		19.0 +- 1.7	
35	45	11.0	17.4 +- 0.5; 2.6		14.0 +- 0.6; 3.9		16.9 +- 1.5	
36	48	4.7	18.1 +- 0.5; 2.7		14.7 +- 0.6; 4.0		18.9 +- 1.9	
37	61	4.2	18.5 +- 0.6; 2.8		15.1 +- 0.7; 4.0		19.1 +- 1.8	
38	86	4.9	17.4 +- 0.5; 2.6		13.9 +- 0.6; 3.9		18.6 +- 1.9	
39	107	9.1	17.5 +- 0.5; 2.6		14.0 +- 0.6; 3.9		16.4 +- 1.5	
40	111	3.7	16.3 +- 0.5; 2.4		12.8 +- 0.6; 3.8		16.2 +- 1.7	
46	0	0.0	17.1 +- 0.5; 2.6		13.7 +- 0.6; 3.9		15.8 +- 1.1	
47	0	0.0	18.3 +- 0.5; 2.7		14.8 +- 0.6; 4.0		15.8 +- 0.7	

Transit Dose = 3.6 +- 0.3; 2.9

PRAIRIE ISLAND
For the period 961210-970414

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	14.3 +- 1.1	4
11.26 - 33.75 NNE	13.6 +- 0.1	2
33.76 - 56.25 NE	14.0 +- 0.6	3
56.26 - 78.75 ENE	13.8 +- 1.8	2
78.76 - 101.25 E	14.2 +- 0.4	2
101.26 - 123.75 ESE	13.6 +- 0.7	3
123.76 - 146.25 SE	14.6 +- 0.7	3
146.26 - 168.75 SSE	14.1 +- 0.8	3
168.76 - 191.25 S	14.3 +- 0.2	2
191.26 - 213.75 SSW	14.8 +- 0.9	2
213.76 - 236.25 SW	13.3 +- 1.4	3
236.26 - 258.75 WSW	14.5 +- 0.7	2
258.76 - 281.25 W	13.9 +- 1.5	2
281.26 - 303.75 WNW	13.9 +- 1.0	2
303.76 - 326.25 NW	13.6 +- 1.3	2
326.26 - 348.75 NNW	14.4 +- 0.5	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	14.1 +- 0.8	17
2 - 5	14.0 +- 0.9	17
> 5	14.2 +- 0.8	5
Upwind Control	13.6 +- 1.1	3

NRC TLD DOSES FOR PRAIRIE ISLAND AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

QUAD CITIES

TLD Direct Radiation Environmental Monitoring

For the period 961210-970416 128 Days

Field Time: 86 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	3	0.7	15.5	+- 0.5; 2.3	13.2	+- 0.6; 3.8	14.9	+- 1.4
2	16	1.2	17.8	+- 0.5; 2.7	15.5	+- 0.6; 4.0	17.5	+- 2.0
3	35	1.7	16.5	+- 0.5; 2.5	14.2	+- 0.6; 3.9	15.1	+- 1.2
4	45	1.1	16.2	+- 0.5; 2.4	14.0	+- 0.6; 3.8	15.7	+- 1.1
5	90	0.8	16.1	+- 0.5; 2.4	13.8	+- 0.6; 3.8	15.5	+- 1.3
6	138	1.1	16.5	+- 0.5; 2.5	14.2	+- 0.6; 3.9	16.2	+- 1.4
7	175	1.8	17.3	+- 0.5; 2.6	15.1	+- 0.6; 3.9	16.3	+- 1.5
8	165	2.0	16.2	+- 0.5; 2.4	13.9	+- 0.6; 3.8	16.5	+- 1.3
9	186	3.1	17.2	+- 0.5; 2.6	15.0	+- 0.6; 3.9	15.8	+- 1.1
10	188	7.7	14.4	+- 0.4; 2.2	12.0	+- 0.5; 3.6	15.0	+- 4.6
11	156	4.2	17.3	+- 0.5; 2.6	15.0	+- 0.6; 3.9	16.6	+- 1.4
12	142	4.8	17.1	+- 0.5; 2.6	14.8	+- 0.6; 3.9	16.6	+- 1.6
13	123	3.3	Missing Dosimeter		No Net Data		16.3	+- 1.3
14	122	2.0	16.0	+- 0.5; 2.4	13.7	+- 0.6; 3.8	14.9	+- 1.5
15	86	2.8	18.8	+- 0.6; 2.8	16.6	+- 0.7; 4.1	17.1	+- 1.4
16	57	4.4	18.8	+- 0.6; 2.8	16.7	+- 0.7; 4.1	18.9	+- 1.5
17	48	6.1	16.9	+- 0.5; 2.5	14.7	+- 0.6; 3.9	16.4	+- 1.2
18	39	9.4	18.3	+- 0.5; 2.7	16.1	+- 0.7; 4.0	15.8	+- 1.2
19	34	4.7	16.6	+- 0.5; 2.5	14.3	+- 0.6; 3.9	15.5	+- 1.2
20	16	4.3	17.7	+- 0.5; 2.7	15.5	+- 0.6; 4.0	16.7	+- 1.3
21	352	4.2	18.6	+- 0.6; 2.8	16.4	+- 0.7; 4.1	18.4	+- 2.8
22	328	4.1	18.9	+- 0.6; 2.8	16.8	+- 0.7; 4.1	18.4	+- 1.3
23	337	5.7	17.8	+- 0.5; 2.7	15.6	+- 0.6; 4.0	16.9	+- 1.3
24	310	4.4	18.4	+- 0.6; 2.8	16.2	+- 0.7; 4.1	18.2	+- 1.6
25	295	4.1	16.6	+- 0.5; 2.5	14.3	+- 0.6; 3.9	16.2	+- 1.3
26	278	6.9	15.0	+- 0.5; 2.3	12.7	+- 0.6; 3.7	14.2	+- 1.2
27	260	4.3	16.8	+- 0.5; 2.5	14.5	+- 0.6; 3.9	16.3	+- 1.6
28	253	4.0	17.1	+- 0.5; 2.6	14.9	+- 0.6; 3.9	16.6	+- 1.4
29	352	2.8	18.4	+- 0.6; 2.8	16.2	+- 0.7; 4.1	17.4	+- 1.3
30	335	1.9	16.8	+- 0.5; 2.5	14.6	+- 0.6; 3.9	17.1	+- 1.4
31	305	2.6	18.1	+- 0.5; 2.7	15.9	+- 0.6; 4.0	16.9	+- 1.7
32	285	2.5	15.9	+- 0.5; 2.4	13.6	+- 0.6; 3.8	15.0	+- 1.7
33	257	2.0	15.8	+- 0.5; 2.4	13.5	+- 0.6; 3.8	16.5	+- 1.5
34	248	2.2	18.6	+- 0.6; 2.8	16.4	+- 0.7; 4.1	16.6	+- 1.2
35	229	2.6	16.7	+- 0.5; 2.5	14.4	+- 0.6; 3.9	15.9	+- 1.3
36	204	3.4	16.7	+- 0.5; 2.5	14.4	+- 0.6; 3.9	16.1	+- 2.0
37	194	9.3	18.1	+- 0.5; 2.7	15.9	+- 0.6; 4.0	16.1	+- 1.2
38	224	4.9	18.0	+- 0.5; 2.7	15.8	+- 0.6; 4.0	17.3	+- 1.3
39	301	14.0	16.5	+- 0.5; 2.5	14.3	+- 0.6; 3.9	15.7	+- 1.2
40	301	14.0	16.8	+- 0.5; 2.5	14.5	+- 0.6; 3.9	15.3	+- 1.3
41	301	14.0	Damaged Dosimeter		No Net Data		14.7	+- 1.3

Transit Dose = 2.9 +- 0.3; 2.7

QUAD CITIES

For the period 961210-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	15.3 +- 1.8	3
11.26 - 33.75 NNE	15.5 +- 0.0	2
33.76 - 56.25 NE	14.6 +- 0.8	5
56.26 - 78.75 ENE	16.7 +- 0.0	1
78.76 - 101.25 E	15.2 +- 2.0	2
101.26 - 123.75 ESE	13.7 +- 0.0	1
123.76 - 146.25 SE	14.5 +- 0.4	2
146.26 - 168.75 SSE	14.5 +- 0.8	2
168.76 - 191.25 S	14.0 +- 1.7	3
191.26 - 213.75 SSW	15.2 +- 1.0	2
213.76 - 236.25 SW	15.1 +- 1.0	2
236.26 - 258.75 WSW	14.9 +- 1.5	3
258.76 - 281.25 W	13.6 +- 1.3	2
281.26 - 303.75 WNW	13.9 +- 0.6	2
303.76 - 326.25 NW	16.1 +- 0.2	2
326.26 - 348.75 NNW	15.6 +- 1.1	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	14.1 +- 0.7	11
2 - 5	15.4 +- 1.0	20
> 5	14.5 +- 1.7	6
Upwind Control	14.4 +- 0.2	2

NRC TLD DOSES FOR QUAD CITIES AREA

Miles

0 2 4

Legend

Water

— Highways

--- Railroads

... Roads

★ Plant site

RANCHO SECO

TLD Direct Radiation Environmental Monitoring

For the period 961205-970429 146 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.			Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.			Hist. Range Net Exp Rate +-1 Std Dev	
1	288	16.0	22.1	+-	0.7; 3.3	17.7	+-	0.7; 4.4	16.0	+- 2.6
2	239	12.0	22.3	+-	0.7; 3.4	17.9	+-	0.7; 4.4	17.3	+- 1.6
3	213	16.0	24.7	+-	0.7; 3.7	20.3	+-	0.8; 4.7	18.7	+- 1.4
4	149	9.9	22.3	+-	0.7; 3.3	17.9	+-	0.7; 4.4	16.0	+- 1.1
5	108	8.2	27.4	+-	0.8; 4.1	22.9	+-	0.9; 5.0	22.5	+- 1.7
6	86	10.0	18.9	+-	0.6; 2.8	14.6	+-	0.7; 4.0	14.2	+- 1.2
7	83	9.7	19.2	+-	0.6; 2.9	14.9	+-	0.7; 4.1	14.4	+- 1.1
8	37	7.1	20.0	+-	0.6; 3.0	15.7	+-	0.7; 4.1	14.7	+- 1.1
9	65	0.8	21.3	+-	0.6; 3.2	16.9	+-	0.7; 4.3	15.9	+- 1.3
10	43	0.7	22.0	+-	0.7; 3.3	17.6	+-	0.7; 4.4	16.7	+- 1.9
11	92	0.2	20.8	+-	0.6; 3.1	16.5	+-	0.7; 4.2	14.8	+- 1.4
12	131	1.6	20.4	+-	0.6; 3.1	16.0	+-	0.7; 4.2	14.2	+- 1.1
13	358	0.6	22.9	+-	0.7; 3.4	18.5	+-	0.8; 4.5	17.7	+- 0.9
14	323	0.7	20.8	+-	0.6; 3.1	16.4	+-	0.7; 4.2	16.1	+- 1.2
15	151	0.7	19.4	+-	0.6; 2.9	15.1	+-	0.7; 4.1	15.2	+- 1.4
16	219	0.9	21.6	+-	0.6; 3.2	17.2	+-	0.7; 4.3	16.2	+- 1.4
17	245	1.5	20.5	+-	0.6; 3.1	16.1	+-	0.7; 4.2	15.7	+- 1.3
18	254	2.3	19.8	+-	0.6; 3.0	15.5	+-	0.7; 4.1	14.9	+- 0.9
19	323	7.0	21.6	+-	0.6; 3.2	17.2	+-	0.7; 4.3	16.4	+- 1.2
20	309	6.3	22.9	+-	0.7; 3.4	18.5	+-	0.8; 4.5	17.1	+- 1.5
21	279	5.7	20.9	+-	0.6; 3.1	16.6	+-	0.7; 4.2	15.8	+- 1.3
22	244	6.4	22.8	+-	0.7; 3.4	18.3	+-	0.7; 4.4	17.1	+- 1.2
23	217	4.6	21.3	+-	0.6; 3.2	16.9	+-	0.7; 4.3	16.0	+- 1.2
24	350	11.0	20.9	+-	0.6; 3.1	16.5	+-	0.7; 4.2	16.2	+- 0.9
25	318	17.0	20.0	+-	0.6; 3.0	15.7	+-	0.7; 4.2	16.5	+- 1.2
26	311	22.0	20.0	+-	0.6; 3.0	15.6	+-	0.7; 4.1	16.4	+- 1.3
27	306	27.0	21.0	+-	0.6; 3.2	16.6	+-	0.7; 4.3	15.3	+- 1.0
28	306	27.0	21.3	+-	0.6; 3.2	17.0	+-	0.7; 4.3	15.6	+- 0.9
29	306	27.0	20.6	+-	0.6; 3.1	16.2	+-	0.7; 4.2	15.4	+- 1.6
30	306	27.0	21.2	+-	0.6; 3.2	16.8	+-	0.7; 4.3	15.4	+- 1.8

Transit Dose = 4.0 +- 0.3; 3.0

RANCHO SECO
For the period 961205-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.5 +- 1.4	2
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	16.6 +- 1.3	2
56.26 - 78.75 ENE	16.9 +- 0.0	1
78.76 - 101.25 E	15.3 +- 1.0	3
101.26 - 123.75 ESE	22.9 +- 0.0	1
123.76 - 146.25 SE	16.0 +- 0.0	1
146.26 - 168.75 SSE	16.5 +- 2.0	2
168.76 - 191.25 S	No Data +- No Data	0
191.26 - 213.75 SSW	20.3 +- 0.0	1
213.76 - 236.25 SW	17.1 +- 0.2	2
236.26 - 258.75 WSW	17.0 +- 1.4	4
258.76 - 281.25 W	16.6 +- 0.0	1
281.26 - 303.75 WNW	17.7 +- 0.0	1
303.76 - 326.25 NW	16.8 +- 1.0	6
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.7 +- 1.0	9
2 - 5	16.2 +- 1.0	2
> 5	17.4 +- 2.1	16
Upwind Control	16.4 +- 0.7	3

NRC TLD DOSES FOR RANCHO SECO AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

RIVER BEND

TLD Direct Radiation Environmental Monitoring

For the period 961209-970429 142 Days

Field Time: 77 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	348	1.3	17.9 +- 0.5; 2.7		15.1 +- 0.7; 4.4		16.5 +- 1.7	
2	42	1.1	21.3 +- 0.6; 3.2		18.9 +- 0.8; 4.9		17.5 +- 1.3	
3	61	1.1	20.9 +- 0.6; 3.1		18.5 +- 0.8; 4.8		18.4 +- 1.4	
4	90	0.8	20.5 +- 0.6; 3.1		18.1 +- 0.8; 4.8		17.4 +- 1.3	
5	107	0.6	20.1 +- 0.6; 3.0		17.6 +- 0.8; 4.7		18.2 +- 1.3	
6	136	0.8	22.4 +- 0.7; 3.4		20.2 +- 0.9; 5.0		18.6 +- 1.5	
7	166	1.0	19.1 +- 0.6; 2.9		16.4 +- 0.8; 4.6		15.4 +- 1.1	
8	182	0.9	20.1 +- 0.6; 3.0		17.6 +- 0.8; 4.7		16.4 +- 1.1	
9	195	0.6	20.4 +- 0.6; 3.1		17.9 +- 0.8; 4.7		16.4 +- 1.2	
10	225	0.7	19.9 +- 0.6; 3.0		17.4 +- 0.8; 4.7		17.0 +- 1.2	
11	254	0.4	20.4 +- 0.6; 3.1		18.0 +- 0.8; 4.7		16.5 +- 1.4	
12	276	0.6	20.6 +- 0.6; 3.1		18.2 +- 0.8; 4.8		18.1 +- 1.3	
13	295	0.6	20.6 +- 0.6; 3.1		18.2 +- 0.8; 4.8		18.6 +- 1.2	
14	320	0.9	20.7 +- 0.6; 3.1		18.3 +- 0.8; 4.8		17.2 +- 1.4	
15	332	2.1	21.2 +- 0.6; 3.2		18.8 +- 0.8; 4.8		18.3 +- 1.4	
16	312	2.7	20.9 +- 0.6; 3.1		18.6 +- 0.8; 4.8		17.2 +- 1.9	
17	302	3.1	19.3 +- 0.6; 2.9		16.7 +- 0.8; 4.6		15.5 +- 1.2	
18	278	3.8	Missing Dosimeter		No Net Data		15.0 +- 1.6	
19	242	2.8	22.2 +- 0.7; 3.3		20.1 +- 0.9; 5.0		19.0 +- 1.4	
20	195	5.4	20.0 +- 0.6; 3.0		17.5 +- 0.8; 4.7		17.2 +- 1.5	
21	215	3.0	20.8 +- 0.6; 3.1		18.5 +- 0.8; 4.8		17.7 +- 1.2	
22	233	7.1	18.2 +- 0.5; 2.7		15.4 +- 0.8; 4.5		14.6 +- 1.7	
23	246	9.7	19.6 +- 0.6; 2.9		17.0 +- 0.8; 4.6		17.3 +- 1.3	
24	234	7.3	19.8 +- 0.6; 3.0		17.2 +- 0.8; 4.7		15.4 +- 1.8	
25	185	7.6	21.0 +- 0.6; 3.1		18.6 +- 0.8; 4.8		17.6 +- 1.3	
26	322	7.7	19.1 +- 0.6; 2.9		16.4 +- 0.8; 4.6		16.3 +- 1.5	
27	328	10.0	22.9 +- 0.7; 3.4		20.8 +- 0.9; 5.1		18.4 +- 1.4	
28	340	7.2	21.4 +- 0.6; 3.2		19.1 +- 0.8; 4.9		17.8 +- 1.1	
29	354	9.5	21.0 +- 0.6; 3.2		18.7 +- 0.8; 4.8		16.8 +- 1.2	
30	360	5.1	20.7 +- 0.6; 3.1		18.3 +- 0.8; 4.8		18.3 +- 1.3	
31	221	6.9	21.5 +- 0.6; 3.2		19.2 +- 0.9; 4.9		18.1 +- 1.3	
32	40	4.9	20.7 +- 0.6; 3.1		18.3 +- 0.8; 4.8		17.2 +- 1.2	
33	52	8.7	18.3 +- 0.5; 2.7		15.5 +- 0.8; 4.5		14.4 +- 1.3	
34	65	8.4	19.9 +- 0.6; 3.0		17.3 +- 0.8; 4.7		16.6 +- 1.2	
35	87	6.6	19.4 +- 0.6; 2.9		16.7 +- 0.8; 4.6		15.2 +- 1.0	
36	326	5.8	21.3 +- 0.6; 3.2		19.0 +- 0.8; 4.9		17.7 +- 1.4	
37	329	22.0	20.1 +- 0.6; 3.0		17.6 +- 0.8; 4.7		17.0 +- 1.1	
38	111	3.8	18.7 +- 0.6; 2.8		15.9 +- 0.8; 4.5		16.3 +- 1.3	
39	131	5.6	20.3 +- 0.6; 3.0		17.9 +- 0.8; 4.7		17.2 +- 1.1	
40	155	6.2	21.7 +- 0.7; 3.3		19.4 +- 0.9; 4.9		17.9 +- 1.2	
41	120	9.0	19.4 +- 0.6; 2.9		16.8 +- 0.8; 4.6		16.5 +- 1.5	
42	121	11.0	17.8 +- 0.5; 2.7		14.9 +- 0.7; 4.4		14.8 +- 0.9	
43	180	1.1	22.7 +- 0.7; 3.4		20.6 +- 0.9; 5.0		18.8 +- 1.2	
44	150	28.0	18.0 +- 0.5; 2.7		15.1 +- 0.7; 4.4		14.4 +- 1.2	

Transit Dose = 5.1 +- 0.3; 2.7

RIVER BEND

For the period 961209-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	18.5 +- 0.3	2
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	17.6 +- 1.8	3
56.26 - 78.75 ENE	17.9 +- 0.8	2
78.76 - 101.25 E	17.4 +- 1.0	2
101.26 - 123.75 ESE	16.3 +- 1.2	4
123.76 - 146.25 SE	19.0 +- 1.7	2
146.26 - 168.75 SSE	17.9 +- 2.1	2
168.76 - 191.25 S	18.9 +- 1.5	3
191.26 - 213.75 SSW	17.7 +- 0.3	2
213.76 - 236.25 SW	17.5 +- 1.4	5
236.26 - 258.75 WSW	18.3 +- 1.6	3
258.76 - 281.25 W	18.2 +- 0.0	1
281.26 - 303.75 WNW	17.4 +- 1.0	2
303.76 - 326.25 NW	18.1 +- 1.2	4
326.26 - 348.75 NNW	18.3 +- 2.1	5

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	18.1 +- 1.3	15
2 - 5	18.1 +- 1.4	7
> 5	17.7 +- 1.5	20
Upwind Control	15.1 +- 0.0	1

NRC TLD DOSES FOR RIVER BEND AREA

Miles

Legend

Water

--- Railroads

Plant site

— Highways

--- Roads

ROBINSON

TLD Direct Radiation Environmental Monitoring

For the period 961211-970417 128 Days

Field Time: 91 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	191	0.2	18.6	+- 0.6; 2.8	12.4	+- 0.7; 4.2	14.2	+- 1.2
2	151	1.9	28.0	+- 0.8; 4.2	21.7	+- 0.9; 5.2	22.1	+- 1.7
3	134	2.0	23.5	+- 0.7; 3.5	17.3	+- 0.8; 4.7	17.7	+- 1.2
4	119	1.9	19.6	+- 0.6; 2.9	13.3	+- 0.7; 4.3	14.2	+- 0.9
5	89	2.1	22.6	+- 0.7; 3.4	16.3	+- 0.8; 4.6	17.5	+- 1.4
6	65	1.0	21.4	+- 0.6; 3.2	15.2	+- 0.8; 4.5	15.9	+- 1.0
7	46	1.8	22.9	+- 0.7; 3.4	16.6	+- 0.8; 4.6	16.7	+- 1.6
8	27	1.9	23.5	+- 0.7; 3.5	17.3	+- 0.8; 4.7	16.8	+- 1.2
9	22	3.5	22.5	+- 0.7; 3.4	16.2	+- 0.8; 4.6	16.3	+- 1.6
10	0	5.0	23.6	+- 0.7; 3.5	17.4	+- 0.8; 4.7	17.9	+- 1.1
11	51	4.8	24.4	+- 0.7; 3.7	18.1	+- 0.8; 4.8	19.2	+- 1.0
12	67	4.1	20.0	+- 0.6; 3.0	13.8	+- 0.7; 4.3	14.4	+- 1.5
13	87	4.5	22.7	+- 0.7; 3.4	16.5	+- 0.8; 4.6	15.6	+- 1.0
14	109	5.0	22.9	+- 0.7; 3.4	16.6	+- 0.8; 4.6	16.1	+- 1.1
15	118	4.8	23.6	+- 0.7; 3.5	17.3	+- 0.8; 4.7	16.2	+- 1.9
16	138	5.3	22.7	+- 0.7; 3.4	16.4	+- 0.8; 4.6	16.8	+- 1.2
17	115	17.1	22.6	+- 0.7; 3.4	16.4	+- 0.8; 4.6	15.3	+- 1.7
18	199	12.6	21.4	+- 0.6; 3.2	15.1	+- 0.8; 4.5	16.3	+- 0.9
19	208	4.8	Missing Dosimeter		No Net Data		21.9	+- 2.3
20	225	4.0	24.5	+- 0.7; 3.7	18.2	+- 0.8; 4.8	19.4	+- 1.3
21	178	4.6	20.2	+- 0.6; 3.0	13.9	+- 0.7; 4.3	12.6	+- 1.0
22	167	3.7	20.8	+- 0.6; 3.1	14.6	+- 0.7; 4.4	16.1	+- 1.0
23	181	2.3	21.0	+- 0.6; 3.1	14.7	+- 0.7; 4.4	15.3	+- 0.9
24	194	2.0	25.1	+- 0.8; 3.8	18.8	+- 0.8; 4.9	18.9	+- 1.2
25	228	2.1	23.5	+- 0.7; 3.5	17.2	+- 0.8; 4.7	18.3	+- 0.9
26	245	1.5	19.1	+- 0.6; 2.9	12.9	+- 0.7; 4.2	14.2	+- 1.2
27	273	1.8	19.3	+- 0.6; 2.9	13.1	+- 0.7; 4.2	13.5	+- 1.0
28	287	2.0	19.1	+- 0.6; 2.9	12.9	+- 0.7; 4.2	13.4	+- 1.0
29	311	1.6	23.9	+- 0.7; 3.6	17.6	+- 0.8; 4.7	17.4	+- 0.9
30	334	1.9	21.7	+- 0.7; 3.3	15.5	+- 0.8; 4.5	16.2	+- 1.8
31	351	2.1	Missing Dosimeter		No Net Data		15.1	+- 1.8
32	333	4.0	20.7	+- 0.6; 3.1	14.5	+- 0.7; 4.4	16.2	+- 1.1
33	318	4.7	23.6	+- 0.7; 3.5	17.3	+- 0.8; 4.7	17.7	+- 1.1
34	310	6.9	22.0	+- 0.7; 3.3	15.8	+- 0.8; 4.5	15.5	+- 1.8
35	295	4.0	27.3	+- 0.8; 4.1	21.0	+- 0.9; 5.1	20.8	+- 1.3
36	269	4.8	21.9	+- 0.7; 3.3	15.7	+- 0.8; 4.5	18.3	+- 1.6
37	252	4.6	23.7	+- 0.7; 3.6	17.4	+- 0.8; 4.7	17.2	+- 1.3
38	274	10.7	26.1	+- 0.8; 3.9	19.8	+- 0.9; 5.0	18.7	+- 3.3
39	286	15.3	19.5	+- 0.6; 2.9	13.3	+- 0.7; 4.3	14.8	+- 1.2
40	289	16.5	19.9	+- 0.6; 3.0	13.7	+- 0.7; 4.3	14.1	+- 0.9
41	291	17.5	19.2	+- 0.6; 2.9	13.0	+- 0.7; 4.2	15.0	+- 1.4

Transit Dose = 6.1 +- 0.4; 3.2

ROBINSON

For the period 961211-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.4 +- 0.0	1
11.26 - 33.75 NNE	16.7 +- 0.8	2
33.76 - 56.25 NE	17.4 +- 1.0	2
56.26 - 78.75 ENE	14.5 +- 1.0	2
78.76 - 101.25 E	16.4 +- 0.1	2
101.26 - 123.75 ESE	15.9 +- 1.8	4
123.76 - 146.25 SE	16.8 +- 0.6	2
146.26 - 168.75 SSE	18.2 +- 5.0	2
168.76 - 191.25 S	13.7 +- 1.2	3
191.26 - 213.75 SSW	17.0 +- 2.6	2
213.76 - 236.25 SW	17.7 +- 0.7	2
236.26 - 258.75 WSW	15.1 +- 3.2	2
258.76 - 281.25 W	16.2 +- 3.4	3
281.26 - 303.75 WNW	16.9 +- 5.7	2
303.76 - 326.25 NW	16.9 +- 1.0	3
326.26 - 348.75 NNW	15.0 +- 0.7	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.7 +- 2.8	13
2 - 5	16.5 +- 1.8	18
> 5	16.7 +- 1.8	5
Upwind Control	13.3 +- 0.3	3

NRC TLD DOSES FOR ROBINSON AREA

Miles

Legend

Water

Railroads

Plant..site

Highways

Roads

SALEM (DE)

TLD Direct Radiation Environmental Monitoring

For the period 961212-970415 125 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
17	331 4.2	17.2 +- 0.5; 2.6	14.4 +- 0.6; 3.8	16.8 +- 1.8
18	320 3.8	15.0 +- 0.5; 2.3	12.2 +- 0.5; 3.6	13.7 +- 0.9
19	299 3.4	17.1 +- 0.5; 2.6	14.3 +- 0.6; 3.8	15.9 +- 1.2
20	330 9.5	20.1 +- 0.6; 3.0	17.2 +- 0.7; 4.1	19.2 +- 1.1
21	276 3.6	19.3 +- 0.6; 2.9	16.4 +- 0.6; 4.0	18.0 +- 1.2
22	266 4.7	18.6 +- 0.6; 2.8	15.7 +- 0.6; 3.9	17.6 +- 0.7
23	257 4.4	18.1 +- 0.5; 2.7	15.3 +- 0.6; 3.9	17.2 +- 1.1
24	240 4.4	19.0 +- 0.6; 2.8	16.1 +- 0.6; 4.0	17.9 +- 1.0
25	217 4.9	18.7 +- 0.6; 2.8	15.8 +- 0.6; 3.9	17.6 +- 1.2
26	204 3.9	16.7 +- 0.5; 2.5	13.8 +- 0.6; 3.7	16.3 +- 1.1
27	188 4.2	19.8 +- 0.6; 3.0	16.9 +- 0.7; 4.0	18.8 +- 2.3
28	319 18.1	21.1 +- 0.6; 3.2	18.2 +- 0.7; 4.2	19.5 +- 1.7
29	265 6.7	17.1 +- 0.5; 2.6	14.2 +- 0.6; 3.8	14.8 +- 0.9
30	340 12.2	16.3 +- 0.5; 2.4	13.5 +- 0.6; 3.7	14.2 +- 1.1
31	0 18.2	18.3 +- 0.5; 2.7	15.4 +- 0.6; 3.9	17.0 +- 1.0
32	338 8.1	16.3 +- 0.5; 2.5	13.5 +- 0.6; 3.7	15.2 +- 1.1
33	265 9.8	17.5 +- 0.5; 2.6	14.6 +- 0.6; 3.8	17.3 +- 1.2
34	207 11.6	16.7 +- 0.5; 2.5	13.8 +- 0.6; 3.7	16.6 +- 1.1

Transit Dose = 2.5 +- 0.3; 2.9

SALEM (DE)

For the period 961212-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	No Data +- No Data	0
123.76 - 146.25 SE	No Data +- No Data	0
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	16.9 +- 0.0	1
191.26 - 213.75 SSW	13.8 +- 0.0	2
213.76 - 236.25 SW	15.8 +- 0.0	1
236.26 - 258.75 WSW	15.7 +- 0.6	2
258.76 - 281.25 W	15.2 +- 1.0	4
281.26 - 303.75 WNW	14.3 +- 0.0	1
303.76 - 326.25 NW	12.2 +- 0.0	1
326.26 - 348.75 NNW	15.0 +- 1.9	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	No Data +- No Data	0
2 - 5	15.1 +- 1.4	10
> 5	14.7 +- 1.5	5
Upwind Control	15.7 +- 2.4	3

NRC TLD DOSES FOR SALEM — HOPE CREEK AREA

Miles

Legend

Water

--- Railroads

★ Plant..site

— Highways

--- Roads

SALEM (NJ)

TLD Direct Radiation Environmental Monitoring

For the period 961212-970415 125 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	87	3.3	16.6 +- 0.5; 2.5	11.3 +- 0.6; 3.9	14.0 +- 0.5
2	79	3.4	15.1 +- 0.5; 2.3	9.8 +- 0.6; 3.7	14.1 +- 0.9
3	72	3.6	18.5 +- 0.6; 2.8	13.1 +- 0.7; 4.1	16.9 +- 2.1
4	58	4.2	17.0 +- 0.5; 2.5	11.7 +- 0.6; 3.9	15.4 +- 1.2
5	54	4.9	16.5 +- 0.5; 2.5	11.2 +- 0.6; 3.9	13.2 +- 0.8
6	68	8.6	15.2 +- 0.5; 2.3	10.0 +- 0.6; 3.8	11.9 +- 0.9
7	40	5.7	21.9 +- 0.7; 3.3	16.5 +- 0.7; 4.4	13.9 +- 0.9
8	116	12.0	16.6 +- 0.5; 2.5	11.3 +- 0.6; 3.9	13.5 +- 0.6
10	8	5.8	17.4 +- 0.5; 2.6	12.1 +- 0.6; 4.0	13.9 +- 0.9
11	15	8.1	15.9 +- 0.5; 2.4	10.6 +- 0.6; 3.8	13.1 +- 0.6
12	24	8.6	16.6 +- 0.5; 2.5	11.3 +- 0.6; 3.9	13.3 +- 0.7
13	49	8.6	15.4 +- 0.5; 2.3	10.1 +- 0.6; 3.8	12.7 +- 0.6
14	90	6.7	14.8 +- 0.4; 2.2	9.5 +- 0.6; 3.7	12.1 +- 0.8
15	105	6.4	Missing Dosimeter	No Net Data	12.2 +- 0.7

Transit Dose = 5.0 +- 0.4; 3.1

SALEM (NJ)

For the period 961212-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	12.1 +- 0.0	1
11.26 - 33.75 NNE	11.0 +- 0.5	2
33.76 - 56.25 NE	12.6 +- 3.4	3
56.26 - 78.75 ENE	11.6 +- 1.6	3
78.76 - 101.25 E	10.2 +- 0.9	3
101.26 - 123.75 ESE	11.3 +- 0.0	1
123.76 - 146.25 SE	No Data +- No Data	0
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	No Data +- No Data	0
191.26 - 213.75 SSW	No Data +- No Data	0
213.76 - 236.25 SW	No Data +- No Data	0
236.26 - 258.75 WSW	No Data +- No Data	0
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	No Data +- No Data	0
2 - 5	11.4 +- 1.2	5
> 5	11.4 +- 2.2	8
Upwind Control	No Data +- No Data	0

NRC TLD DOSES FOR SALEM - HOPE CREEK AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

SAN ONOFRE

TLD Direct Radiation Environmental Monitoring

For the period 961205-970429 146 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	346	35.0	29.5 +- 0.9; 4.4	22.0 +- 1.0; 5.4	23.5 +- 1.4
2	346	35.0	27.9 +- 0.8; 4.2	20.5 +- 0.9; 5.2	23.0 +- 1.4
3	346	35.0	29.1 +- 0.9; 4.4	21.7 +- 1.0; 5.3	23.2 +- 1.6
4	327	11.0	22.6 +- 0.7; 3.4	15.3 +- 0.8; 4.6	16.6 +- 1.7
5	308	14.0	25.6 +- 0.8; 3.8	18.2 +- 0.9; 4.9	19.4 +- 1.4
6	307	10.0	24.3 +- 0.7; 3.6	17.0 +- 0.8; 4.8	16.9 +- 1.4
7	318	6.3	23.4 +- 0.7; 3.5	16.1 +- 0.8; 4.7	17.5 +- 1.4
8	322	5.1	24.4 +- 0.7; 3.7	17.1 +- 0.8; 4.8	19.2 +- 1.4
9	311	3.3	Missing Dosimeter	No Net Data	17.4 +- 1.6
10	331	3.3	24.8 +- 0.7; 3.7	17.5 +- 0.8; 4.8	19.4 +- 2.6
11	300	2.6	Missing Dosimeter	No Net Data	19.1 +- 1.5
12	285	0.5	Missing Dosimeter	No Net Data	19.9 +- 3.1
13	320	2.4	24.8 +- 0.7; 3.7	17.5 +- 0.8; 4.8	17.7 +- 1.8
14	320	1.7	Damaged Dosimeter	No Net Data	17.6 +- 1.5
15	333	1.2	23.0 +- 0.7; 3.5	15.7 +- 0.8; 4.6	18.1 +- 1.4
16	30	1.9	26.0 +- 0.8; 3.9	18.6 +- 0.9; 5.0	20.6 +- 1.8
17	8	1.3	21.0 +- 0.6; 3.1	13.8 +- 0.7; 4.4	15.5 +- 1.3
18	39	2.0	26.0 +- 0.8; 3.9	18.7 +- 0.9; 5.0	21.5 +- 1.3
19	55	2.9	24.2 +- 0.7; 3.6	16.9 +- 0.8; 4.8	18.1 +- 1.5
20	77	4.1	26.9 +- 0.8; 4.0	19.6 +- 0.9; 5.1	20.1 +- 1.5
21	87	4.7	27.6 +- 0.8; 4.1	20.2 +- 0.9; 5.2	20.3 +- 1.4
22	25	3.4	26.7 +- 0.8; 4.0	19.3 +- 0.9; 5.1	21.8 +- 1.8
23	357	3.5	25.6 +- 0.8; 3.8	18.3 +- 0.9; 4.9	20.3 +- 1.9
24	25	0.4	22.9 +- 0.7; 3.4	15.6 +- 0.8; 4.6	18.0 +- 1.4
25	81	0.4	23.0 +- 0.7; 3.4	15.7 +- 0.8; 4.6	17.8 +- 2.3
26	126	2.1	20.9 +- 0.6; 3.1	13.7 +- 0.7; 4.4	14.9 +- 1.4
27	130	8.6	20.6 +- 0.6; 3.1	13.4 +- 0.7; 4.4	15.1 +- 1.8
28	99	8.9	20.7 +- 0.6; 3.1	13.5 +- 0.7; 4.4	15.4 +- 1.9
29	135	11.0	22.3 +- 0.7; 3.3	15.0 +- 0.8; 4.6	15.9 +- 1.8
30	126	2.0	18.3 +- 0.6; 2.8	11.2 +- 0.7; 4.2	12.4 +- 1.7
31	128	3.7	21.3 +- 0.6; 3.2	14.0 +- 0.8; 4.5	14.6 +- 1.5
32	140	22.0	25.2 +- 0.8; 3.8	17.8 +- 0.9; 4.9	18.7 +- 2.2
33	120	26.0	21.0 +- 0.6; 3.2	13.8 +- 0.8; 4.4	15.2 +- 1.6

Transit Dose = 6.9 +- 0.4; 3.3

SAN ONOFRE

For the period 961205-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.0 +- 3.2	2
11.26 - 33.75 NNE	17.8 +- 2.0	3
33.76 - 56.25 NE	17.8 +- 1.3	2
56.26 - 78.75 ENE	19.6 +- 0.0	1
78.76 - 101.25 E	16.5 +- 3.4	3
101.26 - 123.75 ESE	13.8 +- 0.0	1
123.76 - 146.25 SE	14.2 +- 2.2	6
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	No Data +- No Data	0
191.26 - 213.75 SSW	No Data +- No Data	0
213.76 - 236.25 SW	No Data +- No Data	0
236.26 - 258.75 WSW	No Data +- No Data	0
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	17.2 +- 0.8	5
326.26 - 348.75 NNW	16.2 +- 1.2	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.6 +- 2.6	7
2 - 5	17.4 +- 2.3	9
> 5	15.7 +- 1.8	10
Upwind Control	21.4 +- 0.8	3

NRC TLD DOSES FOR SAN ONOFRÉ AREA

Miles

Legend

Water

Highways

--- Railroads

--- Roads

Plant..site

SEABROOK

TLD Direct Radiation Environmental Monitoring

For the period 961212-970410 120 Days

Field Time: 87 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	154 0.6	19.3 +- 0.6; 2.9	19.3 +- 0.6; 4.0	17.2 +- 2.4
2	178 0.7	19.5 +- 0.6; 2.9	19.6 +- 0.7; 4.0	16.8 +- 2.3
3	207 0.7	19.1 +- 0.6; 2.9	19.2 +- 0.6; 4.0	16.3 +- 2.6
4	224 0.9	18.3 +- 0.5; 2.7	18.3 +- 0.6; 3.9	17.6 +- 2.7
5	243 1.2	19.3 +- 0.6; 2.9	19.3 +- 0.6; 4.0	16.1 +- 2.8
6	294 1.0	19.6 +- 0.6; 2.9	19.6 +- 0.7; 4.0	17.1 +- 2.4
7	267 0.7	18.8 +- 0.6; 2.8	18.9 +- 0.6; 4.0	16.7 +- 2.4
8	320 1.1	19.7 +- 0.6; 3.0	19.7 +- 0.7; 4.1	17.7 +- 2.8
9	329 1.6	20.1 +- 0.6; 3.0	20.2 +- 0.7; 4.1	19.3 +- 2.8
10	357 1.9	19.5 +- 0.6; 2.9	19.5 +- 0.7; 4.0	16.7 +- 2.6
11	18 2.5	17.7 +- 0.5; 2.7	17.7 +- 0.6; 3.8	16.9 +- 2.5
12	46 1.9	19.5 +- 0.6; 2.9	19.5 +- 0.7; 4.0	16.3 +- 2.2
13	83 1.7	18.1 +- 0.5; 2.7	18.1 +- 0.6; 3.9	17.2 +- 2.5
14	43 4.1	19.9 +- 0.6; 3.0	19.9 +- 0.7; 4.1	18.1 +- 2.6
15	358 4.2	19.2 +- 0.6; 2.9	19.2 +- 0.6; 4.0	17.8 +- 2.7
16	18 11.8	20.3 +- 0.6; 3.0	20.3 +- 0.7; 4.1	18.0 +- 2.6
17	321 7.4	21.6 +- 0.6; 3.2	21.7 +- 0.7; 4.3	19.0 +- 3.0
18	291 3.9	20.0 +- 0.6; 3.0	20.1 +- 0.7; 4.1	17.9 +- 2.3
19	267 3.7	19.6 +- 0.6; 2.9	19.6 +- 0.7; 4.0	17.1 +- 2.4
20	251 4.2	21.0 +- 0.6; 3.1	21.1 +- 0.7; 4.2	19.1 +- 3.0
21	228 4.7	18.7 +- 0.6; 2.8	18.7 +- 0.6; 3.9	16.6 +- 2.7
22	209 6.2	21.8 +- 0.7; 3.3	22.0 +- 0.7; 4.3	19.3 +- 2.6
23	187 6.5	21.7 +- 0.7; 3.3	21.9 +- 0.7; 4.3	19.2 +- 2.7
24	163 7.1	19.0 +- 0.6; 2.8	19.0 +- 0.6; 4.0	15.7 +- 2.5
25	174 4.0	17.3 +- 0.5; 2.6	17.3 +- 0.6; 3.8	15.8 +- 2.8
26	157 4.0	18.2 +- 0.5; 2.7	18.2 +- 0.6; 3.9	16.6 +- 2.7
27	136 2.4	19.1 +- 0.6; 2.9	19.1 +- 0.6; 4.0	16.9 +- 2.7
28	118 1.6	19.7 +- 0.6; 3.0	19.7 +- 0.7; 4.1	16.3 +- 2.3
30	67 2.1	22.4 +- 0.7; 3.4	22.6 +- 0.7; 4.4	18.5 +- 2.7
31	335 5.5	19.7 +- 0.6; 3.0	19.8 +- 0.7; 4.1	18.1 +- 2.6
32	318 3.2	20.3 +- 0.6; 3.0	20.4 +- 0.7; 4.1	18.8 +- 2.9
33	230 19.3	19.4 +- 0.6; 2.9	19.5 +- 0.6; 4.0	17.3 +- 3.4
34	230 19.3	21.4 +- 0.6; 3.2	21.5 +- 0.7; 4.3	18.0 +- 3.1
35	230 19.3	20.6 +- 0.6; 3.1	20.7 +- 0.7; 4.2	19.2 +- 3.5

Transit Dose = 0.6 +- 0.2; 2.6

SEABROOK

For the period 961212-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	19.4 +- 0.2	2
11.26 - 33.75 NNE	19.0 +- 1.9	2
33.76 - 56.25 NE	19.7 +- 0.3	2
56.26 - 78.75 ENE	22.6 +- 0.0	1
78.76 - 101.25 E	18.1 +- 0.0	1
101.26 - 123.75 ESE	19.7 +- 0.0	1
123.76 - 146.25 SE	19.1 +- 0.0	1
146.26 - 168.75 SSE	18.8 +- 0.5	3
168.76 - 191.25 S	19.6 +- 2.3	3
191.26 - 213.75 SSW	20.6 +- 2.0	2
213.76 - 236.25 SW	19.2 +- 1.3	3
236.26 - 258.75 WSW	20.2 +- 1.3	2
258.76 - 281.25 W	19.2 +- 0.5	2
281.26 - 303.75 WNW	19.9 +- 0.4	2
303.76 - 326.25 NW	20.7 +- 1.4	2
326.26 - 348.75 NNW	20.0 +- 0.3	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	19.3 +- 0.6	13
2 - 5	19.4 +- 1.5	11
> 5	20.8 +- 1.1	7
Upwind Control	20.4 +- 1.0	3

NRC TLD DOSES FOR SEABROOK AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

SEQUOYAH

TLD Direct Radiation Environmental Monitoring

For the period 961211-970421 132 Days

Field Time: 87 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	218	12.0	19.5 +- 0.6; 2.9		17.8 +- 0.7; 4.1		16.9 +- 1.6	
2	206	13.0	17.4 +- 0.5; 2.6		15.6 +- 0.6; 3.9		14.6 +- 1.3	
3	203	3.9	22.8 +- 0.7; 3.4		21.2 +- 0.8; 4.5		20.3 +- 1.5	
4	199	2.0	19.5 +- 0.6; 2.9		17.7 +- 0.7; 4.1		17.2 +- 1.5	
5	181	1.4	22.9 +- 0.7; 3.4		21.3 +- 0.8; 4.5		21.1 +- 1.4	
6	153	1.5	18.1 +- 0.5; 2.7		16.3 +- 0.6; 4.0		15.8 +- 1.3	
7	139	1.9	17.6 +- 0.5; 2.6		15.9 +- 0.6; 3.9		14.9 +- 1.2	
8	115	1.8	17.2 +- 0.5; 2.6		15.4 +- 0.6; 3.9		16.1 +- 1.9	
9	84	1.6	17.1 +- 0.5; 2.6		15.3 +- 0.6; 3.9		13.9 +- 1.4	
10	66	1.3	17.2 +- 0.5; 2.6		15.4 +- 0.6; 3.9		15.6 +- 1.4	
11	45	1.5	19.1 +- 0.6; 2.9		17.4 +- 0.7; 4.1		16.7 +- 1.6	
12	14	2.0	21.3 +- 0.6; 3.2		19.6 +- 0.7; 4.3		18.8 +- 1.1	
13	2	2.1	21.0 +- 0.6; 3.2		19.3 +- 0.7; 4.3		19.2 +- 1.6	
14	19	3.9	18.5 +- 0.6; 2.8		16.7 +- 0.6; 4.0		16.1 +- 1.3	
15	48	4.0	16.5 +- 0.5; 2.5		14.7 +- 0.6; 3.8		13.6 +- 1.2	
16	65	4.9	18.2 +- 0.5; 2.7		16.4 +- 0.6; 4.0		15.9 +- 1.1	
17	90	3.9	18.5 +- 0.6; 2.8		16.8 +- 0.6; 4.0		17.1 +- 1.8	
18	111	3.4	18.4 +- 0.6; 2.8		16.6 +- 0.6; 4.0		16.1 +- 1.5	
19	135	3.4	19.1 +- 0.6; 2.9		17.3 +- 0.7; 4.1		16.4 +- 1.1	
20	158	3.4	16.6 +- 0.5; 2.5		14.8 +- 0.6; 3.8		14.7 +- 1.9	
21	184	4.6	18.5 +- 0.6; 2.8		16.8 +- 0.6; 4.0		18.8 +- 2.4	
22	233	11.0	17.6 +- 0.5; 2.6		15.8 +- 0.6; 3.9		14.7 +- 1.2	
23	219	4.9	21.4 +- 0.6; 3.2		19.8 +- 0.7; 4.4		18.2 +- 1.2	
24	241	4.3	18.4 +- 0.6; 2.8		16.7 +- 0.6; 4.0		15.7 +- 1.3	
25	235	2.0	16.5 +- 0.5; 2.5		14.7 +- 0.6; 3.8		13.4 +- 1.0	
26	248	1.5	17.1 +- 0.5; 2.6		15.2 +- 0.6; 3.9		15.6 +- 2.0	
27	266	1.2	18.0 +- 0.5; 2.7		16.2 +- 0.6; 4.0		14.9 +- 1.3	
28	291	1.2	18.7 +- 0.6; 2.8		17.0 +- 0.7; 4.0		15.9 +- 1.5	
29	309	1.2	18.5 +- 0.6; 2.8		16.7 +- 0.6; 4.0		16.2 +- 1.5	
30	330	0.5	20.3 +- 0.6; 3.0		18.6 +- 0.7; 4.2		17.1 +- 1.5	
31	339	1.8	19.2 +- 0.6; 2.9		17.4 +- 0.7; 4.1		17.1 +- 1.4	
32	355	4.9	19.2 +- 0.6; 2.9		17.4 +- 0.7; 4.1		15.1 +- 1.0	
33	334	3.6	18.7 +- 0.6; 2.8		17.0 +- 0.7; 4.0		15.0 +- 1.2	
34	317	4.4	19.0 +- 0.6; 2.9		17.3 +- 0.7; 4.1		16.0 +- 1.6	
35	277	5.6	18.6 +- 0.6; 2.8		16.8 +- 0.6; 4.0		16.5 +- 1.4	
36	283	3.6	17.7 +- 0.5; 2.7		15.9 +- 0.6; 3.9		14.5 +- 1.1	
37	273	4.4	18.3 +- 0.5; 2.7		16.5 +- 0.6; 4.0		15.6 +- 1.5	
38	302	19.0	19.0 +- 0.6; 2.9		17.3 +- 0.7; 4.1		15.5 +- 1.3	
39	290	18.0	19.1 +- 0.6; 2.9		17.4 +- 0.7; 4.1		16.5 +- 1.2	
40	289	18.0	16.9 +- 0.5; 2.5		15.1 +- 0.6; 3.8		14.9 +- 1.4	
41	318	6.1	18.3 +- 0.6; 2.8		16.6 +- 0.6; 4.0		16.0 +- 1.2	

Transit Dose = 2.3 +- 0.3; 2.7

SEQUOYAH

For the period 961211-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	18.4 +- 1.3	2
11.26 - 33.75 NNE	18.2 +- 2.1	2
33.76 - 56.25 NE	16.0 +- 1.9	2
56.26 - 78.75 ENE	15.9 +- 0.7	2
78.76 - 101.25 E	16.0 +- 1.1	2
101.26 - 123.75 ESE	16.0 +- 0.9	2
123.76 - 146.25 SE	16.6 +- 1.0	2
146.26 - 168.75 SSE	15.5 +- 1.0	2
168.76 - 191.25 S	19.0 +- 3.2	2
191.26 - 213.75 SSW	18.2 +- 2.8	3
213.76 - 236.25 SW	17.0 +- 2.2	4
236.26 - 258.75 WSW	16.0 +- 1.0	2
258.76 - 281.25 W	16.5 +- 0.3	3
281.26 - 303.75 WNW	16.4 +- 0.7	2
303.76 - 326.25 NW	16.9 +- 0.4	3
326.26 - 348.75 NNW	17.7 +- 0.8	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.9 +- 1.8	16
2 - 5	17.1 +- 1.6	17
> 5	16.5 +- 0.9	5
Upwind Control	16.6 +- 1.3	3

NRC TLD DOSES FOR SEQUOYAH AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant site

SOUTH TEXAS

TLD Direct Radiation Environmental Monitoring

For the period 961209-970416 129 Days

Field Time: 88 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	90 1.0	18.1 +- 0.5; 2.7	15.9 +- 0.6; 3.9	16.1 +- 1.8
2	63 1.0	18.2 +- 0.5; 2.7	16.1 +- 0.6; 4.0	16.9 +- 1.4
3	40 1.0	19.0 +- 0.6; 2.8	16.9 +- 0.7; 4.1	17.3 +- 1.3
4	19 1.0	Missing Dosimeter	No Net Data	16.3 +- 1.4
5	4 0.9	18.4 +- 0.6; 2.8	16.3 +- 0.6; 4.0	16.4 +- 1.3
6	339 0.9	18.3 +- 0.5; 2.7	16.2 +- 0.6; 4.0	16.7 +- 1.3
7	318 1.0	18.7 +- 0.6; 2.8	16.6 +- 0.6; 4.0	15.9 +- 1.2
8	294 1.1	20.6 +- 0.6; 3.1	18.5 +- 0.7; 4.2	18.9 +- 1.5
9	267 1.3	21.1 +- 0.6; 3.2	19.1 +- 0.7; 4.3	19.1 +- 1.4
10	126 0.3	17.3 +- 0.5; 2.6	15.1 +- 0.6; 3.9	15.0 +- 1.2
11	180 0.1	19.1 +- 0.6; 2.9	17.0 +- 0.7; 4.1	15.7 +- 1.8
12	257 0.5	16.8 +- 0.5; 2.5	14.6 +- 0.6; 3.8	14.4 +- 1.4
13	262 0.9	16.1 +- 0.5; 2.4	13.9 +- 0.6; 3.7	14.5 +- 1.4
14	250 1.3	18.0 +- 0.5; 2.7	15.9 +- 0.6; 3.9	15.0 +- 1.4
15	227 2.4	16.0 +- 0.5; 2.4	13.8 +- 0.6; 3.7	14.0 +- 1.3
16	210 3.7	16.5 +- 0.5; 2.5	14.3 +- 0.6; 3.8	13.6 +- 1.4
17	175 3.6	16.3 +- 0.5; 2.5	14.2 +- 0.6; 3.8	13.7 +- 1.2
18	158 3.7	16.1 +- 0.5; 2.4	13.9 +- 0.6; 3.7	14.0 +- 1.4
19	143 3.3	16.6 +- 0.5; 2.5	14.4 +- 0.6; 3.8	13.4 +- 1.2
20	122 2.3	18.3 +- 0.5; 2.7	16.1 +- 0.6; 4.0	14.9 +- 1.3
21	121 1.1	17.7 +- 0.5; 2.6	15.5 +- 0.6; 3.9	14.9 +- 1.3
22	257 2.5	18.1 +- 0.5; 2.7	15.9 +- 0.6; 4.0	16.4 +- 1.5
23	262 4.5	20.3 +- 0.6; 3.1	18.2 +- 0.7; 4.2	18.5 +- 1.6
24	282 4.7	20.0 +- 0.6; 3.0	17.8 +- 0.7; 4.2	16.3 +- 1.4
25	304 5.8	16.9 +- 0.5; 2.5	14.8 +- 0.6; 3.8	15.0 +- 1.6
26	242 5.4	18.9 +- 0.6; 2.8	16.8 +- 0.7; 4.0	16.2 +- 1.5
27	223 5.0	18.6 +- 0.6; 2.8	16.5 +- 0.6; 4.0	16.1 +- 1.4
28	236 9.6	16.8 +- 0.5; 2.5	14.6 +- 0.6; 3.8	14.2 +- 1.3
29	259 10.0	18.3 +- 0.5; 2.7	16.2 +- 0.6; 4.0	15.5 +- 1.5
30	291 6.2	18.3 +- 0.5; 2.7	16.2 +- 0.6; 4.0	16.3 +- 1.4
31	323 7.8	20.0 +- 0.6; 3.0	17.9 +- 0.7; 4.2	17.5 +- 3.6
32	335 7.4	22.3 +- 0.7; 3.3	20.3 +- 0.7; 4.4	20.6 +- 1.7
33	351 5.5	17.9 +- 0.5; 2.7	15.7 +- 0.6; 3.9	14.7 +- 1.4
34	88 4.4	17.2 +- 0.5; 2.6	15.1 +- 0.6; 3.9	14.7 +- 1.4
35	89 6.7	16.5 +- 0.5; 2.5	14.3 +- 0.6; 3.8	14.1 +- 1.3
36	121 3.9	16.5 +- 0.5; 2.5	14.3 +- 0.6; 3.8	14.7 +- 1.5
37	145 8.8	16.3 +- 0.5; 2.4	14.1 +- 0.6; 3.8	14.5 +- 1.6
38	297 12.0	17.1 +- 0.5; 2.6	14.9 +- 0.6; 3.8	14.5 +- 1.5
39	321 9.3	20.0 +- 0.6; 3.0	17.9 +- 0.7; 4.2	17.1 +- 1.3
40	353 12.0	17.6 +- 0.5; 2.6	15.4 +- 0.6; 3.9	14.4 +- 1.3
41	13 18.0	19.9 +- 0.6; 3.0	17.8 +- 0.7; 4.2	15.7 +- 1.4
42	21 5.7	18.2 +- 0.5; 2.7	16.1 +- 0.6; 4.0	16.4 +- 1.9
43	39 5.8	19.6 +- 0.6; 2.9	17.5 +- 0.7; 4.1	16.8 +- 1.4
44	53 5.1	18.4 +- 0.6; 2.8	16.2 +- 0.6; 4.0	17.1 +- 2.0
45	69 7.3	16.2 +- 0.5; 2.4	14.0 +- 0.6; 3.8	14.3 +- 1.3
46	66 17.0	21.8 +- 0.7; 3.3	19.7 +- 0.7; 4.4	19.1 +- 1.5

Transit Dose = 2.5 +- 0.3; 2.8

SOUTH TEXAS

For the period 961209-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.0 +- 0.4	2
11.26 - 33.75 NNE	16.1 +- 0.0	1
33.76 - 56.25 NE	16.8 +- 0.6	3
56.26 - 78.75 ENE	16.6 +- 2.9	3
78.76 - 101.25 E	15.1 +- 0.8	3
101.26 - 123.75 ESE	15.3 +- 0.9	3
123.76 - 146.25 SE	14.5 +- 0.5	3
146.26 - 168.75 SSE	13.9 +- 0.0	1
168.76 - 191.25 S	15.6 +- 2.0	2
191.26 - 213.75 SSW	14.3 +- 0.0	1
213.76 - 236.25 SW	15.0 +- 1.4	3
236.26 - 258.75 WSW	15.8 +- 0.9	4
258.76 - 281.25 W	16.8 +- 2.3	4
281.26 - 303.75 WNW	17.5 +- 1.2	3
303.76 - 326.25 NW	16.8 +- 1.5	4
326.26 - 348.75 NNW	18.2 +- 2.9	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.2 +- 1.4	14
2 - 5	15.4 +- 1.5	12
> 5	16.4 +- 1.9	16
Upwind Control	16.0 +- 1.5	3

NRC TLD DOSES FOR SOUTH TEXAS AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant site

ST. LUCIE

TLD Direct Radiation Environmental Monitoring

For the period 961210-970421 133 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	20	0.3	13.9	+- 0.4; 2.1	12.3	+- 0.5; 3.4	13.7	+- 2.2
2	45	0.2	15.8	+- 0.5; 2.4	14.2	+- 0.5; 3.6	14.1	+- 2.3
3	67	0.2	14.5	+- 0.4; 2.2	12.9	+- 0.5; 3.5	15.4	+- 3.0
4	92	0.3	15.1	+- 0.5; 2.3	13.5	+- 0.5; 3.5	13.2	+- 2.3
5	115	0.4	13.9	+- 0.4; 2.1	12.3	+- 0.5; 3.4	12.6	+- 2.3
6	143	1.1	12.5	+- 0.4; 1.9	11.0	+- 0.5; 3.3	11.7	+- 2.1
7	150	2.0	13.7	+- 0.4; 2.1	12.1	+- 0.5; 3.4	11.5	+- 2.1
8	154	4.7	13.2	+- 0.4; 2.0	11.6	+- 0.5; 3.3	12.3	+- 2.4
9	152	23.0	13.8	+- 0.4; 2.1	12.2	+- 0.5; 3.4	12.7	+- 2.3
10	152	23.0	14.2	+- 0.4; 2.1	12.6	+- 0.5; 3.4	13.0	+- 2.0
11	152	23.0	15.1	+- 0.5; 2.3	13.5	+- 0.5; 3.5	13.9	+- 2.4
12	168	14.0	14.2	+- 0.4; 2.1	12.6	+- 0.5; 3.4	12.7	+- 2.1
13	185	10.0	13.8	+- 0.4; 2.1	12.2	+- 0.5; 3.4	12.6	+- 2.3
14	183	11.0	14.6	+- 0.4; 2.2	13.0	+- 0.5; 3.5	14.4	+- 2.5
15	170	8.0	13.8	+- 0.4; 2.1	12.2	+- 0.5; 3.4	12.3	+- 2.2
16	196	7.0	13.2	+- 0.4; 2.0	11.6	+- 0.5; 3.3	12.7	+- 2.2
17	229	7.9	18.4	+- 0.6; 2.8	16.7	+- 0.6; 3.8	15.5	+- 2.8
18	250	6.6	12.5	+- 0.4; 1.9	10.9	+- 0.5; 3.3	11.7	+- 2.3
19	247	4.8	12.9	+- 0.4; 1.9	11.4	+- 0.5; 3.3	12.2	+- 2.4
20	229	5.0	14.0	+- 0.4; 2.1	12.4	+- 0.5; 3.4	12.8	+- 2.1
21	208	3.8	13.8	+- 0.4; 2.1	12.2	+- 0.5; 3.4	12.2	+- 2.4
22	187	3.8	12.6	+- 0.4; 1.9	11.0	+- 0.5; 3.3	12.5	+- 2.3
23	203	2.6	14.3	+- 0.4; 2.1	12.7	+- 0.5; 3.4	12.8	+- 2.4
24	245	1.9	13.3	+- 0.4; 2.0	11.7	+- 0.5; 3.3	12.4	+- 2.4
25	280	2.2	14.4	+- 0.4; 2.2	12.8	+- 0.5; 3.4	12.9	+- 2.3
26	299	3.1	13.6	+- 0.4; 2.0	12.1	+- 0.5; 3.4	13.2	+- 2.2
27	305	3.8	Missing Dosimeter		No Net Data		12.6	+- 2.3
28	276	4.0	13.2	+- 0.4; 2.0	11.7	+- 0.5; 3.3	12.1	+- 2.2
29	293	5.8	14.2	+- 0.4; 2.1	12.6	+- 0.5; 3.4	12.5	+- 2.3
30	316	7.7	13.7	+- 0.4; 2.0	12.1	+- 0.5; 3.4	12.5	+- 2.4
32	300	11.0	13.5	+- 0.4; 2.0	11.9	+- 0.5; 3.4	13.2	+- 2.3
33	322	8.7	15.6	+- 0.5; 2.3	13.9	+- 0.5; 3.6	13.9	+- 2.3
34	339	8.8	14.1	+- 0.4; 2.1	12.5	+- 0.5; 3.4	12.9	+- 2.1
35	342	2.9	13.5	+- 0.4; 2.0	11.9	+- 0.5; 3.4	12.1	+- 2.0
36	346	1.9	14.7	+- 0.4; 2.2	13.1	+- 0.5; 3.5	13.5	+- 2.3
37	353	1.0	13.7	+- 0.4; 2.0	12.1	+- 0.5; 3.4	12.5	+- 2.5
38	226	2.0	14.0	+- 0.4; 2.1	12.4	+- 0.5; 3.4	12.7	+- 2.3

Transit Dose = 1.3 +- 0.3; 2.8

ST. LUCIE

For the period 961210-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	12.1 +- 0.0	1
11.26 - 33.75 NNE	12.3 +- 0.0	1
33.76 - 56.25 NE	14.2 +- 0.0	1
56.26 - 78.75 ENE	12.9 +- 0.0	1
78.76 - 101.25 E	13.5 +- 0.0	1
101.26 - 123.75 ESE	12.3 +- 0.0	1
123.76 - 146.25 SE	11.0 +- 0.0	1
146.26 - 168.75 SSE	12.1 +- 0.5	3
168.76 - 191.25 S	12.1 +- 0.8	4
191.26 - 213.75 SSW	12.2 +- 0.5	3
213.76 - 236.25 SW	13.8 +- 2.5	3
236.26 - 258.75 WSW	11.3 +- 0.4	3
258.76 - 281.25 W	12.2 +- 0.8	2
281.26 - 303.75 WNW	12.2 +- 0.4	3
303.76 - 326.25 NW	13.0 +- 1.3	2
326.26 - 348.75 NNW	12.5 +- 0.6	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	12.5 +- 0.9	11
2 - 5	12.0 +- 0.6	10
> 5	12.7 +- 1.5	12
Upwind Control	12.8 +- 0.7	3

NRC TLD DOSES FOR ST. LUCIE AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant..site

SUMMER

TLD Direct Radiation Environmental Monitoring

For the period 961211-970416 127 Days

Field Time: 91 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	199	3.7	25.8 +- 0.8; 3.9		19.4 +- 0.9; 4.9		20.6 +- 2.1	
2	111	1.0	25.4 +- 0.8; 3.8		19.1 +- 0.9; 4.9		19.3 +- 2.1	
3	340	4.1	26.7 +- 0.8; 4.0		20.3 +- 0.9; 5.0		21.9 +- 2.5	
4	192	9.3	26.2 +- 0.8; 3.9		19.8 +- 0.9; 5.0		20.8 +- 1.2	
5	72	1.8	28.3 +- 0.8; 4.2		21.9 +- 0.9; 5.2		21.9 +- 2.2	
6	54	1.5	25.9 +- 0.8; 3.9		19.6 +- 0.9; 5.0		21.8 +- 1.3	
7	46	3.0	32.9 +- 1.0; 4.9		26.5 +- 1.1; 5.8		26.4 +- 2.6	
8	31	3.0	34.1 +- 1.0; 5.1		27.7 +- 1.1; 5.9		27.7 +- 2.3	
9	13	3.9	29.1 +- 0.9; 4.4		22.7 +- 1.0; 5.3		26.6 +- 1.7	
10	7	4.0	30.1 +- 0.9; 4.5		23.7 +- 1.0; 5.5		25.8 +- 1.3	
11	349	4.3	28.8 +- 0.9; 4.3		22.4 +- 0.9; 5.3		22.7 +- 2.9	
12	323	5.0	26.4 +- 0.8; 4.0		20.0 +- 0.9; 5.0		23.6 +- 2.5	
13	333	3.0	29.0 +- 0.9; 4.3		22.6 +- 1.0; 5.3		24.6 +- 1.5	
14	255	2.8	Missing Dosimeter		No Net Data		19.3 +- 2.5	
15	308	5.6	28.8 +- 0.9; 4.3		22.4 +- 0.9; 5.3		25.3 +- 1.6	
16	64	3.5	33.6 +- 1.0; 5.0		27.2 +- 1.1; 5.9		27.0 +- 2.7	
17	98	3.1	26.2 +- 0.8; 3.9		19.9 +- 0.9; 5.0		22.7 +- 1.4	
18	114	3.5	24.8 +- 0.7; 3.7		18.5 +- 0.8; 4.8		22.6 +- 1.5	
19	132	2.0	26.1 +- 0.8; 3.9		19.8 +- 0.9; 5.0		20.5 +- 1.3	
20	152	4.5	19.3 +- 0.6; 2.9		13.0 +- 0.7; 4.2		13.9 +- 2.3	
21	133	4.1	21.1 +- 0.6; 3.2		14.8 +- 0.7; 4.4		15.7 +- 1.0	
22	157	2.4	23.3 +- 0.7; 3.5		17.0 +- 0.8; 4.7		17.8 +- 1.4	
23	173	2.4	24.6 +- 0.7; 3.7		18.3 +- 0.8; 4.8		19.7 +- 1.6	
24	185	3.9	23.2 +- 0.7; 3.5		16.9 +- 0.8; 4.7		18.9 +- 1.5	
25	210	3.3	24.2 +- 0.7; 3.6		17.9 +- 0.8; 4.8		18.8 +- 1.0	
26	217	3.3	Missing Dosimeter		No Net Data		17.2 +- 1.3	
27	231	3.1	20.5 +- 0.6; 3.1		14.2 +- 0.7; 4.4		14.6 +- 1.6	
28	267	2.7	26.5 +- 0.8; 4.0		20.2 +- 0.9; 5.0		21.8 +- 1.4	
29	276	3.4	28.5 +- 0.9; 4.3		22.1 +- 0.9; 5.3		23.4 +- 1.2	
30	293	3.8	29.9 +- 0.9; 4.5		23.6 +- 1.0; 5.4		24.8 +- 3.8	
31	244	3.6	24.4 +- 0.7; 3.7		18.1 +- 0.8; 4.8		20.0 +- 3.3	
32	247	6.2	28.1 +- 0.8; 4.2		21.7 +- 0.9; 5.2		23.4 +- 1.8	
33	218	9.0	25.6 +- 0.8; 3.8		19.2 +- 0.9; 4.9		20.0 +- 1.2	
34	192	9.3	24.7 +- 0.7; 3.7		18.4 +- 0.8; 4.8		20.5 +- 1.1	
35	184	14.1	21.2 +- 0.6; 3.2		14.9 +- 0.7; 4.4		16.0 +- 1.0	
36	183	14.6	18.8 +- 0.6; 2.8		12.5 +- 0.7; 4.2		14.1 +- 2.3	
37	182	14.8	17.7 +- 0.5; 2.7		11.4 +- 0.7; 4.1		13.2 +- 2.4	
38	148	20.8	26.8 +- 0.8; 4.0		20.4 +- 0.9; 5.1		20.7 +- 1.7	
39	140	25.0	29.7 +- 0.9; 4.5		23.4 +- 1.0; 5.4		22.7 +- 2.2	
40	135	23.1	25.4 +- 0.8; 3.8		19.1 +- 0.9; 4.9		19.2 +- 3.0	

Transit Dose = 6.1 +- 0.4; 3.2

SUMMER

For the period 961211-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	23.1 +- 1.0	2
11.26 - 33.75 NNE	25.2 +- 3.5	2
33.76 - 56.25 NE	23.0 +- 4.8	2
56.26 - 78.75 ENE	24.6 +- 3.7	2
78.76 - 101.25 E	19.9 +- 0.0	1
101.26 - 123.75 ESE	18.8 +- 0.4	2
123.76 - 146.25 SE	19.3 +- 3.5	4
146.26 - 168.75 SSE	16.8 +- 3.7	3
168.76 - 191.25 S	17.6 +- 0.9	2
191.26 - 213.75 SSW	18.9 +- 0.9	4
213.76 - 236.25 SW	16.7 +- 3.5	2
236.26 - 258.75 WSW	19.9 +- 2.6	2
258.76 - 281.25 W	21.1 +- 1.3	2
281.26 - 303.75 WNW	23.6 +- 0.0	1
303.76 - 326.25 NW	21.2 +- 1.7	2
326.26 - 348.75 NNW	21.5 +- 1.6	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	20.1 +- 1.3	4
2 - 5	20.3 +- 3.9	23
> 5	20.6 +- 1.8	8
Upwind Control	13.0 +- 1.8	3

NRC TLD DOSES FOR SUMMER AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

SURRY

TLD Direct Radiation Environmental Monitoring

For the period 961210-970415 127 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.			Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.			Hist. Range Net Exp Rate +-1 Std Dev	
1	18	19.0	17.1	+-	0.5; 2.6	14.9	+-	0.6; 3.7	15.5	+- 0.9
2	129	17.0	18.3	+-	0.5; 2.7	16.1	+-	0.6; 3.9	16.6	+- 1.3
3	162	17.0	20.5	+-	0.6; 3.1	18.3	+-	0.7; 4.1	16.0	+- 1.4
4	162	17.0	16.3	+-	0.5; 2.4	14.2	+-	0.6; 3.7	13.6	+- 1.1
5	156	5.1	20.3	+-	0.6; 3.0	18.0	+-	0.7; 4.1	17.8	+- 1.1
6	189	4.1	16.5	+-	0.5; 2.5	14.4	+-	0.6; 3.7	14.7	+- 1.0
7	202	2.2	17.3	+-	0.5; 2.6	15.1	+-	0.6; 3.7	15.1	+- 1.2
8	183	1.6	19.9	+-	0.6; 3.0	17.7	+-	0.6; 4.0	17.4	+- 1.0
9	243	0.2	22.9	+-	0.7; 3.4	20.6	+-	0.7; 4.4	20.3	+- 0.9
10	269	0.1	23.9	+-	0.7; 3.6	21.6	+-	0.8; 4.5	22.3	+- 1.5
11	304	0.1	22.5	+-	0.7; 3.4	20.2	+-	0.7; 4.3	22.0	+- 2.8
12	334	0.2	25.2	+-	0.8; 3.8	22.9	+-	0.8; 4.6	22.7	+- 1.7
13	10	1.2	18.8	+-	0.6; 2.8	16.5	+-	0.6; 3.9	16.2	+- 1.1
14	21	2.0	18.4	+-	0.6; 2.8	16.2	+-	0.6; 3.9	16.7	+- 1.1
15	203	4.5	18.2	+-	0.5; 2.7	16.0	+-	0.6; 3.8	15.4	+- 1.0
16	224	3.7	16.6	+-	0.5; 2.5	14.4	+-	0.6; 3.7	14.3	+- 0.8
17	212	2.0	19.0	+-	0.6; 2.9	16.8	+-	0.6; 3.9	17.2	+- 1.0
18	248	5.1	16.9	+-	0.5; 2.5	14.7	+-	0.6; 3.7	14.8	+- 1.1
19	259	8.1	18.8	+-	0.6; 2.8	16.6	+-	0.6; 3.9	15.5	+- 1.9
20	285	5.0	12.9	+-	0.4; 1.9	10.8	+-	0.5; 3.3	10.7	+- 1.4
21	270	4.1	20.2	+-	0.6; 3.0	18.0	+-	0.7; 4.1	18.5	+- 1.2
22	123	12.0	21.6	+-	0.6; 3.2	19.4	+-	0.7; 4.2	20.4	+- 2.5
23	102	11.0	22.2	+-	0.7; 3.3	19.9	+-	0.7; 4.3	22.3	+- 1.9
24	106	4.9	19.4	+-	0.6; 2.9	17.1	+-	0.6; 4.0	17.6	+- 1.0
25	90	5.2	18.9	+-	0.6; 2.8	16.7	+-	0.6; 3.9	16.9	+- 1.0
26	69	5.1	23.8	+-	0.7; 3.6	21.4	+-	0.8; 4.4	21.2	+- 1.2
27	23	5.3	20.7	+-	0.6; 3.1	18.4	+-	0.7; 4.1	18.4	+- 1.1
28	49	5.0	19.6	+-	0.6; 2.9	17.4	+-	0.6; 4.0	18.4	+- 1.1
29	7	6.8	18.2	+-	0.5; 2.7	16.0	+-	0.6; 3.8	17.4	+- 1.4
30	359	6.5	17.5	+-	0.5; 2.6	15.3	+-	0.6; 3.8	15.6	+- 1.0
31	1	4.6	15.6	+-	0.5; 2.3	13.5	+-	0.5; 3.6	13.4	+- 2.0
32	332	3.8	18.5	+-	0.6; 2.8	16.3	+-	0.6; 3.9	16.5	+- 1.2
33	314	5.4	18.9	+-	0.6; 2.8	16.7	+-	0.6; 3.9	17.4	+- 1.1
34	308	6.4	20.3	+-	0.6; 3.0	18.1	+-	0.7; 4.1	16.1	+- 1.6
35	348	5.3	17.9	+-	0.5; 2.7	15.7	+-	0.6; 3.8	15.4	+- 1.0
36	343	15.0	16.9	+-	0.5; 2.5	14.7	+-	0.6; 3.7	16.7	+- 1.1
37	340	15.0	16.5	+-	0.5; 2.5	14.3	+-	0.6; 3.7	14.3	+- 1.0
38	339	16.0	20.7	+-	0.6; 3.1	18.5	+-	0.7; 4.1	16.7	+- 2.1
39	153	1.9	20.3	+-	0.6; 3.1	18.1	+-	0.7; 4.1	18.6	+- 1.1
40	144	2.1	23.7	+-	0.7; 3.6	21.4	+-	0.7; 4.4	17.0	+- 2.8

Transit Dose = 1.9 +- 0.3; 2.8

SURREY

For the period 961210-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	15.3 +- 1.3	4
11.26 - 33.75 NNE	16.5 +- 1.8	3
33.76 - 56.25 NE	17.4 +- 0.0	1
56.26 - 78.75 ENE	21.4 +- 0.0	1
78.76 - 101.25 E	16.7 +- 0.0	1
101.26 - 123.75 ESE	18.8 +- 1.5	3
123.76 - 146.25 SE	18.7 +- 3.7	2
146.26 - 168.75 SSE	17.1 +- 2.0	4
168.76 - 191.25 S	16.0 +- 2.3	2
191.26 - 213.75 SSW	16.0 +- 0.8	3
213.76 - 236.25 SW	14.4 +- 0.0	1
236.26 - 258.75 WSW	17.7 +- 4.2	2
258.76 - 281.25 W	18.7 +- 2.6	3
281.26 - 303.75 WNW	10.8 +- 0.0	1
303.76 - 326.25 NW	18.3 +- 1.8	3
326.26 - 348.75 NNW	18.3 +- 4.0	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	19.0 +- 2.4	9
2 - 5	15.8 +- 2.7	11
> 5	17.1 +- 2.0	17
Upwind Control	15.8 +- 2.3	3

NRC TLD DOSES FOR SURRY AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant..site

SUSQUEHANNA

TLD Direct Radiation Environmental Monitoring

For the period 961209-970410 123 Days

Field Time: 99 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	19 1.4	21.4 +- 0.6; 3.2	19.1 +- 0.6; 3.9	18.7 +- 1.2
2	358 1.4	21.7 +- 0.7; 3.3	19.4 +- 0.6; 4.0	19.2 +- 1.0
3	332 1.6	19.2 +- 0.6; 2.9	17.1 +- 0.6; 3.7	17.7 +- 1.1
4	315 1.8	20.4 +- 0.6; 3.1	18.2 +- 0.6; 3.8	17.5 +- 1.1
5	287 1.7	21.0 +- 0.6; 3.1	18.8 +- 0.6; 3.9	19.1 +- 1.4
6	270 1.3	21.1 +- 0.6; 3.2	18.8 +- 0.6; 3.9	18.6 +- 1.1
7	239 1.8	20.7 +- 0.6; 3.1	18.5 +- 0.6; 3.9	17.9 +- 1.3
8	217 2.0	22.7 +- 0.7; 3.4	20.3 +- 0.7; 4.1	21.2 +- 1.4
9	201 1.5	21.5 +- 0.6; 3.2	19.2 +- 0.6; 4.0	19.0 +- 1.4
10	185 1.3	20.0 +- 0.6; 3.0	17.9 +- 0.6; 3.8	17.3 +- 1.3
11	243 5.1	21.6 +- 0.6; 3.2	19.3 +- 0.6; 4.0	19.1 +- 1.0
12	252 4.6	20.7 +- 0.6; 3.1	18.5 +- 0.6; 3.9	18.2 +- 1.0
13	274 3.4	24.0 +- 0.7; 3.6	21.5 +- 0.7; 4.2	21.2 +- 1.3
14	286 3.6	Damaged Dosimeter	No Net Data	19.6 +- 1.1
15	1 3.9	Missing Dosimeter	No Net Data	20.4 +- 1.5
16	334 4.1	21.9 +- 0.7; 3.3	19.6 +- 0.6; 4.0	19.5 +- 1.2
17	312 4.4	22.4 +- 0.7; 3.4	20.1 +- 0.7; 4.0	18.8 +- 1.3
18	33 5.0	21.4 +- 0.6; 3.2	19.2 +- 0.6; 3.9	19.4 +- 1.3
19	45 9.9	23.0 +- 0.7; 3.4	20.6 +- 0.7; 4.1	19.8 +- 1.1
20	65 4.7	23.2 +- 0.7; 3.5	20.8 +- 0.7; 4.1	20.9 +- 1.3
21	43 3.3	21.5 +- 0.6; 3.2	19.2 +- 0.6; 4.0	21.0 +- 1.5
22	33 0.9	23.1 +- 0.7; 3.5	20.7 +- 0.7; 4.1	18.7 +- 1.9
23	57 1.2	20.4 +- 0.6; 3.1	18.3 +- 0.6; 3.8	17.6 +- 1.2
24	87 1.4	22.0 +- 0.7; 3.3	19.6 +- 0.6; 4.0	19.2 +- 1.2
25	111 1.4	21.5 +- 0.6; 3.2	19.2 +- 0.6; 4.0	18.8 +- 1.2
26	137 1.5	20.9 +- 0.6; 3.1	18.7 +- 0.6; 3.9	18.8 +- 1.2
27	152 1.5	22.7 +- 0.7; 3.4	20.3 +- 0.7; 4.1	19.8 +- 1.0
28	107 3.6	23.2 +- 0.7; 3.5	20.8 +- 0.7; 4.1	20.7 +- 1.3
29	99 4.3	23.3 +- 0.7; 3.5	20.8 +- 0.7; 4.1	20.3 +- 1.0
30	138 3.6	22.6 +- 0.7; 3.4	20.2 +- 0.7; 4.1	20.4 +- 1.1
31	162 3.4	23.9 +- 0.7; 3.6	21.4 +- 0.7; 4.2	22.0 +- 1.3
32	176 3.5	24.2 +- 0.7; 3.6	21.6 +- 0.7; 4.2	20.6 +- 1.4
33	192 3.2	23.3 +- 0.7; 3.5	20.8 +- 0.7; 4.1	21.1 +- 1.2
34	231 4.4	21.2 +- 0.6; 3.2	19.0 +- 0.6; 3.9	19.7 +- 1.1
35	134 12.3	22.0 +- 0.7; 3.3	19.7 +- 0.6; 4.0	19.7 +- 1.6
36	114 13.5	24.4 +- 0.7; 3.7	21.8 +- 0.7; 4.3	22.0 +- 1.5
37	150 15.6	Missing Dosimeter	No Net Data	19.0 +- 1.5

Transit Dose = 0.4 +- 0.3; 2.9

SUSQUEHANNA

For the period 961209-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	19.4 +- 0.0	1
11.26 - 33.75 NNE	19.6 +- 0.9	3
33.76 - 56.25 NE	19.9 +- 0.9	2
56.26 - 78.75 ENE	19.5 +- 1.8	2
78.76 - 101.25 E	20.2 +- 0.8	2
101.26 - 123.75 ESE	20.0 +- 1.1	2
123.76 - 146.25 SE	19.4 +- 1.1	2
146.26 - 168.75 SSE	20.8 +- 0.8	2
168.76 - 191.25 S	19.8 +- 2.6	2
191.26 - 213.75 SSW	20.0 +- 1.2	2
213.76 - 236.25 SW	19.6 +- 0.9	2
236.26 - 258.75 WSW	18.7 +- 0.5	3
258.76 - 281.25 W	20.1 +- 1.9	2
281.26 - 303.75 WNW	18.8 +- 0.0	1
303.76 - 326.25 NW	19.2 +- 1.3	2
326.26 - 348.75 NNW	18.4 +- 1.8	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	19.0 +- 0.9	16
2 - 5	20.2 +- 1.0	14
> 5	19.9 +- 0.9	2
Upwind Control	20.8 +- 1.5	2

NRC TLD DOSES FOR SUSQUEHANNA AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant..site

THREE MILE ISLAND

TLD Direct Radiation Environmental Monitoring

For the period 961209-970410 123 Days

Field Time: 92 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	95	5.9	19.0	+- 0.6; 2.8	16.8	+- 0.6; 3.9	16.1	+- 1.4
2	102	3.9	20.7	+- 0.6; 3.1	18.5	+- 0.7; 4.1	18.2	+- 1.9
3	110	2.7	15.8	+- 0.5; 2.4	13.7	+- 0.5; 3.6	13.5	+- 2.5
4	162	1.8	18.6	+- 0.6; 2.8	16.4	+- 0.6; 3.9	15.6	+- 1.6
5	161	2.3	18.7	+- 0.6; 2.8	16.5	+- 0.6; 3.9	15.3	+- 1.7
6	152	1.1	18.6	+- 0.6; 2.8	16.4	+- 0.6; 3.9	16.0	+- 1.6
7	123	0.5	16.6	+- 0.5; 2.5	14.5	+- 0.6; 3.7	14.0	+- 1.6
8	87	0.4	17.1	+- 0.5; 2.6	15.0	+- 0.6; 3.7	16.2	+- 1.9
9	61	0.5	16.9	+- 0.5; 2.5	14.8	+- 0.6; 3.7	14.9	+- 1.5
10	1	1.7	17.8	+- 0.5; 2.7	15.7	+- 0.6; 3.8	15.2	+- 1.8
11	27	0.8	Damaged Dosimeter		No Net Data		15.1	+- 1.6
12	48	1.0	18.9	+- 0.6; 2.8	16.7	+- 0.6; 3.9	15.5	+- 1.6
13	19	2.0	17.9	+- 0.5; 2.7	15.8	+- 0.6; 3.8	15.7	+- 1.8
14	358	2.4	17.9	+- 0.5; 2.7	15.8	+- 0.6; 3.8	14.3	+- 1.8
15	132	9.0	21.3	+- 0.6; 3.2	19.1	+- 0.7; 4.2	18.2	+- 1.9
16	0	3.0	17.4	+- 0.5; 2.6	15.2	+- 0.6; 3.8	14.2	+- 1.7
18	347	3.5	20.5	+- 0.6; 3.1	18.3	+- 0.7; 4.1	18.4	+- 1.8
19	343	3.1	19.1	+- 0.6; 2.9	16.9	+- 0.6; 3.9	16.7	+- 1.7
20	318	5.0	20.0	+- 0.6; 3.0	17.8	+- 0.6; 4.0	15.5	+- 1.8
21	348	2.7	16.4	+- 0.5; 2.5	14.3	+- 0.6; 3.7	12.4	+- 1.7
22	17	3.1	19.4	+- 0.6; 2.9	17.2	+- 0.6; 4.0	15.9	+- 1.7
23	64	3.7	16.2	+- 0.5; 2.4	14.0	+- 0.5; 3.6	12.8	+- 1.6
24	44	3.6	19.4	+- 0.6; 2.9	17.2	+- 0.6; 4.0	16.7	+- 1.8
25 *	327	0.4	25.2	+- 0.8; 3.8	22.9	+- 0.8; 4.6	13.0	+- 3.0
27	7	7.1	23.8	+- 0.7; 3.6	21.6	+- 0.8; 4.5	20.3	+- 1.8
29 *	293	0.4	31.0	+- 0.9; 4.7	28.6	+- 1.0; 5.3	15.9	+- 3.4
30 *	314	1.1	34.4	+- 1.0; 5.2	31.9	+- 1.0; 5.8	17.1	+- 3.3
31	303	8.6	16.4	+- 0.5; 2.5	14.2	+- 0.6; 3.7	13.6	+- 1.6
32	297	7.6	18.7	+- 0.6; 2.8	16.6	+- 0.6; 3.9	16.9	+- 1.7
33	302	5.8	15.7	+- 0.5; 2.4	13.6	+- 0.5; 3.6	13.3	+- 1.7
34	296	2.3	19.3	+- 0.6; 2.9	17.2	+- 0.6; 4.0	16.4	+- 1.6
35	308	1.8	Missing Dosimeter		No Net Data		16.5	+- 1.4
36	265	1.2	18.2	+- 0.5; 2.7	16.1	+- 0.6; 3.8	13.2	+- 1.8
37	256	1.4	17.3	+- 0.5; 2.6	15.2	+- 0.6; 3.7	13.7	+- 1.6
38	225	1.9	18.5	+- 0.6; 2.8	16.3	+- 0.6; 3.9	16.3	+- 1.5
39	204	2.0	15.7	+- 0.5; 2.4	13.6	+- 0.5; 3.6	13.0	+- 1.5
40	202	2.5	17.6	+- 0.5; 2.6	15.4	+- 0.6; 3.8	14.6	+- 1.5
41	184	12.6	20.5	+- 0.6; 3.1	18.3	+- 0.7; 4.1	16.6	+- 1.7
42	259	7.4	19.1	+- 0.6; 2.9	16.9	+- 0.6; 3.9	15.9	+- 1.7
43	268	6.2	18.3	+- 0.5; 2.7	16.1	+- 0.6; 3.8	16.3	+- 2.0
44	249	4.3	19.0	+- 0.6; 2.8	16.8	+- 0.6; 3.9	15.0	+- 1.7
45 *	221	0.5	28.5	+- 0.9; 4.3	26.1	+- 0.9; 5.0	13.1	+- 2.4
46	171	3.0	19.5	+- 0.6; 2.9	17.4	+- 0.6; 4.0	15.5	+- 1.8
47	177	5.7	18.1	+- 0.5; 2.7	15.9	+- 0.6; 3.8	15.0	+- 1.8
48	181	9.1	22.8	+- 0.7; 3.4	20.6	+- 0.7; 4.3	21.3	+- 2.1
49 *	199	1.0	29.2	+- 0.9; 4.4	26.8	+- 0.9; 5.1	14.9	+- 2.6
50	145	4.9	20.4	+- 0.6; 3.1	18.2	+- 0.7; 4.1	16.8	+- 2.4

Transit Dose = 1.8 +- 0.3; 2.8

* Station nos. 25, 29, 30, 45, and 49: results are shown for two quarters;
i.e., for the period 960911 - 970410 (Field Time: 170 days).

THREE MILE ISLAND
For the period 961209-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.1 +- 3.0	4
11.26 - 33.75 NNE	16.5 +- 1.0	2
33.76 - 56.25 NE	16.9 +- 0.3	2
56.26 - 78.75 ENE	14.4 +- 0.5	2
78.76 - 101.25 E	15.9 +- 1.3	2
101.26 - 123.75 ESE	15.6 +- 2.6	3
123.76 - 146.25 SE	18.6 +- 0.6	2
146.26 - 168.75 SSE	16.4 +- 0.0	3
168.76 - 191.25 S	18.0 +- 1.9	4
191.26 - 213.75 SSW	14.5 +- 1.3	2
213.76 - 236.25 SW	16.3 +- 0.0	1
236.26 - 258.75 WSW	16.8 +- 0.0	1
258.76 - 281.25 W	16.5 +- 0.5	2
281.26 - 303.75 WNW	15.4 +- 1.7	4
303.76 - 326.25 NW	17.8 +- 0.0	1
326.26 - 348.75 NNW	16.5 +- 2.0	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.5 +- 1.0	10
2 - 5	16.5 +- 1.5	17
> 5	17.3 +- 2.4	11
Upwind Control	15.6 +- 0.6	2

NRC TLD DOSES FOR THREE MILE ISLAND AREA

Miles

Legend

Water

Highways

Railroads Roads

Plant..site

TROJAN

TLD Direct Radiation Environmental Monitoring

For the period 961205-970417 134 Days

Field Time: 99 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	340	0.6	17.4	+- 0.5; 2.6	13.3	+- 0.6; 3.7	12.6	+- 1.1
2	334	1.5	17.6	+- 0.5; 2.6	13.5	+- 0.6; 3.7	14.6	+- 1.0
3	340	1.7	Missing Dosimeter		No Net Data		11.8	+- 0.9
4	328	3.9	15.5	+- 0.5; 2.3	11.6	+- 0.5; 3.5	12.4	+- 1.1
5	308	4.6	18.1	+- 0.5; 2.7	13.9	+- 0.6; 3.7	14.5	+- 1.1
6	312	4.5	18.1	+- 0.5; 2.7	13.9	+- 0.6; 3.7	15.1	+- 1.0
7	267	4.6	19.2	+- 0.6; 2.9	15.0	+- 0.6; 3.8	14.8	+- 0.8
8	274	3.8	18.9	+- 0.6; 2.8	14.7	+- 0.6; 3.8	15.3	+- 0.9
9	279	1.7	19.8	+- 0.6; 3.0	15.5	+- 0.6; 3.9	14.9	+- 0.9
10	263	2.0	20.5	+- 0.6; 3.1	16.2	+- 0.6; 4.0	15.3	+- 0.8
11	245	1.6	20.6	+- 0.6; 3.1	16.3	+- 0.6; 4.0	15.9	+- 0.9
12	223	1.2	20.3	+- 0.6; 3.0	16.0	+- 0.6; 3.9	16.4	+- 1.2
13	196	1.1	19.8	+- 0.6; 3.0	15.5	+- 0.6; 3.9	15.4	+- 0.8
14	180	1.2	16.5	+- 0.5; 2.5	12.5	+- 0.5; 3.6	14.2	+- 1.0
15 *	165	1.7	21.9	+- 0.7; 3.3	17.4	+- 0.7; 4.1	13.0	+- 1.0
16	212	3.9	17.1	+- 0.5; 2.6	13.1	+- 0.6; 3.7	16.2	+- 1.8
17	230	3.5	20.7	+- 0.6; 3.1	16.3	+- 0.6; 4.0	15.6	+- 1.1
18	162	9.3	21.0	+- 0.6; 3.2	16.6	+- 0.6; 4.0	15.7	+- 0.9
19	172	5.0	19.1	+- 0.6; 2.9	14.9	+- 0.6; 3.8	15.6	+- 1.0
20	334	5.8	17.6	+- 0.5; 2.6	13.6	+- 0.6; 3.7	12.8	+- 0.9
21	345	5.5	16.9	+- 0.5; 2.5	12.9	+- 0.5; 3.6	13.3	+- 0.7
22	356	5.5	Missing Dosimeter		No Net Data		12.2	+- 0.7
23	8	3.9	15.9	+- 0.5; 2.4	12.0	+- 0.5; 3.6	11.8	+- 0.7
24	15	3.7	17.1	+- 0.5; 2.6	13.1	+- 0.6; 3.7	13.2	+- 0.8
25	27	1.9	15.9	+- 0.5; 2.4	12.0	+- 0.5; 3.5	12.1	+- 0.9
26	37	2.1	19.6	+- 0.6; 2.9	15.3	+- 0.6; 3.9	14.7	+- 0.9
27	60	2.9	19.4	+- 0.6; 2.9	15.1	+- 0.6; 3.9	14.9	+- 0.8
28	55	4.5	17.8	+- 0.5; 2.7	13.7	+- 0.6; 3.7	13.7	+- 0.8
29	69	1.6	Missing Dosimeter		No Net Data		12.3	+- 1.2
30	83	3.9	17.1	+- 0.5; 2.6	13.0	+- 0.6; 3.6	12.7	+- 0.7
31	93	2.7	19.6	+- 0.6; 2.9	15.3	+- 0.6; 3.9	15.4	+- 0.9
32	119	2.2	19.9	+- 0.6; 3.0	15.6	+- 0.6; 3.9	15.4	+- 0.9
33	106	5.3	21.3	+- 0.6; 3.2	16.9	+- 0.7; 4.0	14.9	+- 2.7
34	134	2.5	16.4	+- 0.5; 2.5	12.4	+- 0.5; 3.6	12.5	+- 0.9
35	145	4.7	17.7	+- 0.5; 2.7	13.6	+- 0.6; 3.7	13.0	+- 0.8
36	270	17.0	19.9	+- 0.6; 3.0	15.6	+- 0.6; 3.9	15.0	+- 1.6
37	270	17.0	21.5	+- 0.6; 3.2	17.1	+- 0.7; 4.1	16.2	+- 2.0
38	270	17.0	20.6	+- 0.6; 3.1	16.2	+- 0.6; 4.0	16.1	+- 1.0

Transit Dose = 2.7 +- 0.3; 3.1

* The result for the indicated location was outside the expected range. Refer to page 4 of this report for more information.

TROJAN

For the period 961205-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	12.0 +- 0.0	1
11.26 - 33.75 NNE	12.5 +- 0.8	2
33.76 - 56.25 NE	14.5 +- 1.2	2
56.26 - 78.75 ENE	15.1 +- 0.0	1
78.76 - 101.25 E	14.2 +- 1.6	2
101.26 - 123.75 ESE	16.3 +- 1.0	2
123.76 - 146.25 SE	13.0 +- 0.8	2
146.26 - 168.75 SSE	17.0 +- 0.6	2
168.76 - 191.25 S	13.7 +- 1.7	2
191.26 - 213.75 SSW	14.3 +- 1.7	2
213.76 - 236.25 SW	16.2 +- 0.3	2
236.26 - 258.75 WSW	16.3 +- 0.0	1
258.76 - 281.25 W	15.3 +- 0.6	4
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	13.9 +- 0.0	2
326.26 - 348.75 NNW	13.0 +- 0.8	5

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	14.8 +- 1.8	10
2 - 5	14.0 +- 1.3	18
> 5	15.0 +- 2.1	4
Upwind Control	16.3 +- 0.7	3

NRC TLD DOSES FOR TROJAN AREA

Miles

Legend

Water

Railroads

Plant site

Highways

Roads

TURKEY POINT

TLD Direct Radiation Environmental Monitoring

For the period 961210-970421 133 Days

Field Time: 94 Days

NRC Sta	Location		Gross		Net Exposure Rate		Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		Exposure (mR) +-Rdm; Tot.		(mR/Std. Qtr.) +-Rdm; Tot.		Net Exp Rate +-1 Std Dev	
1	310	1.3	12.7 +- 0.4; 1.9		11.3 +- 0.4; 3.2		11.6 +- 2.0	
2	292	2.4	13.0 +- 0.4; 1.9		11.6 +- 0.4; 3.3		11.5 +- 2.2	
3	340	1.9	14.3 +- 0.4; 2.1		12.9 +- 0.5; 3.4		11.9 +- 1.9	
4	354	2.0	15.2 +- 0.5; 2.3		13.8 +- 0.5; 3.5		12.6 +- 2.3	
5	314	3.8	13.2 +- 0.4; 2.0		11.9 +- 0.5; 3.3		11.5 +- 1.9	
6	331	4.2	12.8 +- 0.4; 1.9		11.5 +- 0.4; 3.3		10.9 +- 2.0	
7	291	5.4	16.7 +- 0.5; 2.5		15.2 +- 0.5; 3.6		12.0 +- 2.4	
8	263	5.1	13.6 +- 0.4; 2.0		12.2 +- 0.5; 3.3		10.8 +- 2.0	
9	242	5.7	14.4 +- 0.4; 2.2		13.0 +- 0.5; 3.4		11.6 +- 2.4	
10	234	6.2	15.6 +- 0.5; 2.3		14.1 +- 0.5; 3.5		12.1 +- 1.4	
11	220	6.2	15.3 +- 0.5; 2.3		13.9 +- 0.5; 3.5		11.4 +- 2.2	
12	213	6.9	14.2 +- 0.4; 2.1		12.8 +- 0.5; 3.4		11.1 +- 2.0	
13	199	10.0	14.5 +- 0.4; 2.2		13.1 +- 0.5; 3.4		11.8 +- 1.9	
14	90	10.0	13.9 +- 0.4; 2.1		12.5 +- 0.5; 3.3		11.2 +- 2.5	
15	180	10.0	15.0 +- 0.5; 2.3		13.6 +- 0.5; 3.4		13.2 +- 2.0	
16	171	10.0	16.0 +- 0.5; 2.4		14.5 +- 0.5; 3.5		13.4 +- 2.0	
17	165	9.0	15.7 +- 0.5; 2.3		14.2 +- 0.5; 3.5		12.8 +- 2.0	
18	203	16.0	13.8 +- 0.4; 2.1		12.4 +- 0.5; 3.3		12.4 +- 1.7	
19	203	16.0	13.5 +- 0.4; 2.0		12.2 +- 0.5; 3.3		12.1 +- 2.1	
20	203	16.0	14.5 +- 0.4; 2.2		13.1 +- 0.5; 3.4		13.6 +- 1.9	
21	268	8.7	13.1 +- 0.4; 2.0		11.8 +- 0.4; 3.3		10.5 +- 2.1	
22	256	8.0	14.8 +- 0.4; 2.2		13.3 +- 0.5; 3.4		11.8 +- 1.9	
23	275	9.0	14.8 +- 0.4; 2.2		13.3 +- 0.5; 3.4		11.2 +- 2.3	
24	285	9.0	15.6 +- 0.5; 2.3		14.1 +- 0.5; 3.5		13.5 +- 2.2	
25	293	8.7	16.5 +- 0.5; 2.5		15.1 +- 0.5; 3.6		14.0 +- 2.1	
26	301	8.4	Missing Dosimeter		No Net Data		13.5 +- 1.9	
27	311	8.3	14.7 +- 0.4; 2.2		13.3 +- 0.5; 3.4		11.9 +- 1.8	
28	327	8.2	15.8 +- 0.5; 2.4		14.3 +- 0.5; 3.5		13.5 +- 1.9	
29	339	9.3	13.8 +- 0.4; 2.1		12.4 +- 0.5; 3.3		13.0 +- 1.8	
30	350	8.7	15.8 +- 0.5; 2.4		14.3 +- 0.5; 3.5		12.4 +- 2.4	
31	359	9.9	13.9 +- 0.4; 2.1		12.5 +- 0.5; 3.3		12.5 +- 1.8	
32	2	18.0	14.7 +- 0.4; 2.2		13.3 +- 0.5; 3.4		12.6 +- 1.5	
33	2	22.0	14.5 +- 0.4; 2.2		13.1 +- 0.5; 3.4		12.8 +- 1.9	
34	18	24.0	15.0 +- 0.4; 2.2		13.5 +- 0.5; 3.4		12.7 +- 2.0	
35	28	22.0	13.9 +- 0.4; 2.1		12.5 +- 0.5; 3.3		12.2 +- 2.7	
36	15	0.3	13.8 +- 0.4; 2.1		12.4 +- 0.5; 3.3		11.2 +- 1.9	
37	228	0.5	14.3 +- 0.4; 2.1		12.9 +- 0.5; 3.4		12.9 +- 1.9	

Transit Dose = 0.8 +- 0.3; 2.8

TURKEY POINT

For the period 961210-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	13.4 +- 0.7	5
11.26 - 33.75 NNE	12.8 +- 0.6	3
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	12.5 +- 0.0	1
101.26 - 123.75 ESE	No Data +- No Data	0
123.76 - 146.25 SE	No Data +- No Data	0
146.26 - 168.75 SSE	14.2 +- 0.0	1
168.76 - 191.25 S	14.0 +- 0.7	2
191.26 - 213.75 SSW	13.0 +- 0.2	2
213.76 - 236.25 SW	13.6 +- 0.7	3
236.26 - 258.75 WSW	13.1 +- 0.3	2
258.76 - 281.25 W	12.4 +- 0.8	3
281.26 - 303.75 WNW	14.0 +- 1.6	4
303.76 - 326.25 NW	12.2 +- 1.0	3
326.26 - 348.75 NNW	12.8 +- 1.2	4

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	12.7 +- 0.9	5
2 - 5	11.7 +- 0.2	3
> 5	13.4 +- 0.9	25
Upwind Control	12.5 +- 0.5	3

NRC TLD DOSES FOR TURKEY POINT AREA

Miles

0 2 4

Legend

Water

Highways

Railroads

Roads

Plant site

VERMONT YANKEE

TLD Direct Radiation Environmental Monitoring

For the period 961212-970417 127 Days

Field Time: 84 Days

NRC Sta	Location		Gross Exposure (mR)			Net Exposure Rate (mR/Std. Qtr.)			Hist. Range	
	Azimuth/Dist (Deg)/(Mi)		+-Rdm; Tot.			+-Rdm; Tot.			Net Exp Rate +-1 Std Dev	
1	142	1.0	19.9	+-	0.6; 3.0	16.6	+-	0.7; 4.4	15.6	+- 1.4
2	158	1.0	20.1	+-	0.6; 3.0	16.8	+-	0.7; 4.4	16.6	+- 1.0
3	184	1.3	19.2	+-	0.6; 2.9	15.9	+-	0.7; 4.3	15.9	+- 1.1
4	201	1.4	18.6	+-	0.6; 2.8	15.2	+-	0.7; 4.2	16.5	+- 1.5
5	220	1.6	19.8	+-	0.6; 3.0	16.5	+-	0.7; 4.4	16.7	+- 1.6
6	157	3.4	18.7	+-	0.6; 2.8	15.4	+-	0.7; 4.2	16.8	+- 2.3
7	189	4.9	19.6	+-	0.6; 2.9	16.3	+-	0.7; 4.3	16.3	+- 1.3
8	201	13.0	19.3	+-	0.6; 2.9	16.0	+-	0.7; 4.3	15.9	+- 1.1
9	208	5.8	Damaged Dosimeter			No Net Data			16.0	+- 1.3
10	232	3.7	20.8	+-	0.6; 3.1	17.6	+-	0.8; 4.5	18.4	+- 1.6
11	277	2.9	19.0	+-	0.6; 2.8	15.6	+-	0.7; 4.3	17.3	+- 1.7
12	292	1.4	18.5	+-	0.6; 2.8	15.1	+-	0.7; 4.2	16.9	+- 1.7
13	314	1.4	19.2	+-	0.6; 2.9	15.9	+-	0.7; 4.3	16.3	+- 1.5
14	310	4.2	18.3	+-	0.5; 2.7	14.9	+-	0.7; 4.2	16.1	+- 0.9
15	299	4.3	Damaged Dosimeter			No Net Data			16.1	+- 1.1
16	270	4.5	17.3	+-	0.5; 2.6	13.8	+-	0.7; 4.1	14.3	+- 1.2
17	331	5.0	20.6	+-	0.6; 3.1	17.4	+-	0.8; 4.5	16.9	+- 1.1
18	290	19.0	20.2	+-	0.6; 3.0	17.0	+-	0.7; 4.4	18.5	+- 1.7
19	290	19.0	18.9	+-	0.6; 2.8	15.5	+-	0.7; 4.3	17.6	+- 1.8
20	290	19.0	18.4	+-	0.6; 2.8	15.0	+-	0.7; 4.2	17.8	+- 1.8
21	359	3.2	20.2	+-	0.6; 3.0	17.0	+-	0.7; 4.4	16.7	+- 1.5
23	334	2.2	18.3	+-	0.6; 2.8	15.0	+-	0.7; 4.2	15.9	+- 1.5
24	4	0.9	19.9	+-	0.6; 3.0	16.6	+-	0.7; 4.4	16.9	+- 1.2
25	30	1.0	17.5	+-	0.5; 2.6	14.0	+-	0.7; 4.1	15.6	+- 1.4
26	72	1.5	20.7	+-	0.6; 3.1	17.4	+-	0.8; 4.5	17.2	+- 1.0
27	44	0.7	18.8	+-	0.6; 2.8	15.5	+-	0.7; 4.3	16.3	+- 1.3
28	39	2.8	20.7	+-	0.6; 3.1	17.5	+-	0.8; 4.5	17.6	+- 1.8
29	25	3.8	20.8	+-	0.6; 3.1	17.6	+-	0.8; 4.5	19.2	+- 1.7
30	72	2.7	21.2	+-	0.6; 3.2	18.0	+-	0.8; 4.5	18.5	+- 1.9
31	85	2.0	18.7	+-	0.6; 2.8	15.3	+-	0.7; 4.2	16.7	+- 1.3
32	111	1.8	20.3	+-	0.6; 3.0	17.1	+-	0.7; 4.4	16.5	+- 1.2
33	134	4.0	19.5	+-	0.6; 2.9	16.2	+-	0.7; 4.3	16.2	+- 1.1
34	151	6.0	18.5	+-	0.6; 2.8	15.1	+-	0.7; 4.2	14.6	+- 1.2
35	111	4.3	21.5	+-	0.6; 3.2	18.3	+-	0.8; 4.6	18.4	+- 1.4
36	92	4.7	20.3	+-	0.6; 3.0	17.1	+-	0.7; 4.4	18.9	+- 1.5
37	50	15.0	25.0	+-	0.7; 3.7	22.0	+-	0.9; 5.0	21.0	+- 1.4
39	222	0.3	20.7	+-	0.6; 3.1	17.5	+-	0.8; 4.5	17.9	+- 1.3
40	250	3.0	20.0	+-	0.6; 3.0	16.7	+-	0.7; 4.4	16.8	+- 1.4

Transit Dose = 4.4 +- 0.3; 2.8

VERMONT YANKEE
For the period 961212-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.8 +- 0.3	2
11.26 - 33.75 NNE	15.8 +- 2.5	2
33.76 - 56.25 NE	18.3 +- 3.4	3
56.26 - 78.75 ENE	17.7 +- 0.4	2
78.76 - 101.25 E	16.2 +- 1.2	2
101.26 - 123.75 ESE	17.7 +- 0.9	2
123.76 - 146.25 SE	16.4 +- 0.3	2
146.26 - 168.75 SSE	15.8 +- 0.9	3
168.76 - 191.25 S	16.1 +- 0.3	2
191.26 - 213.75 SSW	15.6 +- 0.6	2
213.76 - 236.25 SW	17.2 +- 0.6	3
236.26 - 258.75 WSW	16.7 +- 0.0	1
258.76 - 281.25 W	14.7 +- 1.3	2
281.26 - 303.75 WNW	15.1 +- 0.0	1
303.76 - 326.25 NW	15.4 +- 0.7	2
326.26 - 348.75 NNW	16.2 +- 1.7	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.1 +- 1.0	14
2 - 5	16.5 +- 1.3	16
> 5	17.7 +- 3.8	3
Upwind Control	15.8 +- 1.0	3

NRC TLD DOSES FOR VERMONT YANKEE AREA

Miles

0 2 4

Legend

Water

Highways

Railroads

Roads

Plant site

VOGTLE (GA)

TLD Direct Radiation Environmental Monitoring

For the period 961211-970421 132 Days

Field Time: 85 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	298 1.6	17.0 +- 0.5; 2.5	15.4 +- 0.6; 3.9	14.3 +- 1.8
2	309 1.6	16.6 +- 0.5; 2.5	15.0 +- 0.6; 3.9	14.3 +- 1.9
3	336 1.4	16.2 +- 0.5; 2.4	14.6 +- 0.6; 3.8	14.2 +- 2.5
4	270 1.3	16.5 +- 0.5; 2.5	14.9 +- 0.6; 3.9	14.1 +- 2.1
5	247 1.2	18.2 +- 0.5; 2.7	16.6 +- 0.7; 4.0	14.9 +- 1.9
6	215 1.2	21.0 +- 0.6; 3.1	19.6 +- 0.7; 4.4	18.1 +- 1.9
7	205 1.2	17.8 +- 0.5; 2.7	16.3 +- 0.6; 4.0	17.4 +- 1.9
8	180 1.1	17.7 +- 0.5; 2.7	16.2 +- 0.6; 4.0	17.3 +- 1.9
9	153 1.2	18.7 +- 0.6; 2.8	17.2 +- 0.7; 4.1	15.9 +- 2.1
10	134 3.2	19.5 +- 0.6; 2.9	18.1 +- 0.7; 4.2	17.1 +- 1.8
11	103 1.1	15.2 +- 0.5; 2.3	13.5 +- 0.6; 3.7	12.7 +- 2.5
12	134 3.3	17.3 +- 0.5; 2.6	15.8 +- 0.6; 3.9	14.8 +- 1.8
13	123 4.2	17.2 +- 0.5; 2.6	15.6 +- 0.6; 3.9	15.2 +- 1.8
14	141 4.6	18.1 +- 0.5; 2.7	16.6 +- 0.6; 4.0	14.4 +- 3.4
15	153 5.3	16.3 +- 0.5; 2.4	14.7 +- 0.6; 3.8	13.4 +- 1.9
16	162 6.3	17.2 +- 0.5; 2.6	15.6 +- 0.6; 3.9	15.3 +- 2.0
17	157 7.3	17.9 +- 0.5; 2.7	16.4 +- 0.6; 4.0	17.1 +- 2.8
18	191 4.8	16.6 +- 0.5; 2.5	15.0 +- 0.6; 3.9	13.7 +- 1.8
19	208 4.7	15.6 +- 0.5; 2.3	14.0 +- 0.6; 3.8	13.2 +- 2.1
20	232 4.9	15.6 +- 0.5; 2.3	13.9 +- 0.6; 3.8	13.6 +- 2.0
21	250 5.6	17.6 +- 0.5; 2.6	16.1 +- 0.6; 4.0	14.8 +- 2.0
22	264 4.3	18.0 +- 0.5; 2.7	16.5 +- 0.6; 4.0	14.3 +- 2.1
23	301 4.2	Missing Dosimeter	No Net Data	14.4 +- 2.1
24	308 4.6	16.7 +- 0.5; 2.5	15.0 +- 0.6; 3.9	14.4 +- 2.6
25	329 6.7	15.6 +- 0.5; 2.3	13.9 +- 0.6; 3.8	16.0 +- 2.8
26	258 15.0	19.4 +- 0.6; 2.9	17.9 +- 0.7; 4.2	17.4 +- 2.1
27	300 13.0	17.6 +- 0.5; 2.6	16.0 +- 0.6; 4.0	17.1 +- 1.7
28	330 30.0	15.9 +- 0.5; 2.4	14.2 +- 0.6; 3.8	14.3 +- 1.9

Transit Dose = 2.4 +- 0.3; 2.7

VOGTLE (GA)
For the period 961211-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	14.5 +- 1.5	2
123.76 - 146.25 SE	16.8 +- 1.2	3
146.26 - 168.75 SSE	16.0 +- 1.1	4
168.76 - 191.25 S	15.6 +- 0.8	2
191.26 - 213.75 SSW	15.1 +- 1.6	2
213.76 - 236.25 SW	16.8 +- 4.0	2
236.26 - 258.75 WSW	16.4 +- 0.4	2
258.76 - 281.25 W	15.7 +- 1.1	2
281.26 - 303.75 WNW	15.4 +- 0.0	1
303.76 - 326.25 NW	15.0 +- 0.0	2
326.26 - 348.75 NNW	14.3 +- 0.5	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.9 +- 1.7	10
2 - 5	15.6 +- 1.3	9
> 5	15.3 +- 1.0	5
Upwind Control	16.0 +- 1.9	3

NRC TLD DOSES FOR VOGTLE AREA

Miles

Legend

Water

Railroads

Roads

Plant..site

VOGTLE (SC)

TLD Direct Radiation Environmental Monitoring

For the period 961211-970421 132 Days

Field Time: 85 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
31 *	357 5.2	55.9 +- 1.7; 8.4	51.4 +- 1.8; 9.5	18.0 +- 3.8
32	26 4.9	20.7 +- 0.6; 3.1	14.1 +- 0.8; 4.7	12.6 +- 2.6
33	17 3.2	21.0 +- 0.6; 3.1	14.4 +- 0.8; 4.7	12.9 +- 2.4
34	36 3.9	22.5 +- 0.7; 3.4	16.0 +- 0.8; 4.9	14.2 +- 2.4
35	48 2.4	27.7 +- 0.8; 4.2	21.5 +- 1.0; 5.5	19.0 +- 2.8
36	69 2.8	21.9 +- 0.7; 3.3	15.3 +- 0.8; 4.8	14.7 +- 2.6
37	74 4.4	21.5 +- 0.6; 3.2	15.0 +- 0.8; 4.8	14.2 +- 3.9
38	94 4.5	22.2 +- 0.7; 3.3	15.6 +- 0.8; 4.8	14.0 +- 2.6

Transit Dose = 7.4 +- 0.4; 3.1

- * The result for the indicated location was outside the expected range. Refer to page 4 of this report for more information.

VOGTLE (SC)
For the period 961211-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	No Data +- No Data	0
11.26 - 33.75 NNE	14.2 +- 0.2	2
33.76 - 56.25 NE	18.8 +- 3.9	2
56.26 - 78.75 ENE	15.1 +- 0.2	2
78.76 - 101.25 E	15.6 +- 0.0	1
101.26 - 123.75 ESE	No Data +- No Data	0
123.76 - 146.25 SE	No Data +- No Data	0
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	No Data +- No Data	0
191.26 - 213.75 SSW	No Data +- No Data	0
213.76 - 236.25 SW	No Data +- No Data	0
236.26 - 258.75 WSW	No Data +- No Data	0
258.76 - 281.25 W	No Data +- No Data	0
281.26 - 303.75 WNW	No Data +- No Data	0
303.76 - 326.25 NW	No Data +- No Data	0
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	No Data +- No Data	0
2 - 5	16.0 +- 2.5	7
> 5	No Data +- No Data	0
Upwind Control	No Data +- No Data	0

NRC TLD DOSES FOR VOGTLE AREA

Miles

Legend

Water

Railroads

Roads

Plant..site

WASHINGTON NUCLEAR 2

TLD Direct Radiation Environmental Monitoring

For the period 961205-970410 127 Days

Field Time: 95 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	174 12.0	21.7 +- 0.7; 3.3	16.7 +- 0.7; 4.2	18.0 +- 0.9
2	163 11.0	21.7 +- 0.6; 3.2	16.7 +- 0.7; 4.2	17.8 +- 0.9
3	161 9.0	21.4 +- 0.6; 3.2	16.4 +- 0.7; 4.2	17.4 +- 0.8
4	152 5.0	23.3 +- 0.7; 3.5	18.2 +- 0.7; 4.4	19.0 +- 0.9
5	195 2.0	22.5 +- 0.7; 3.4	17.5 +- 0.7; 4.3	18.0 +- 0.7
6	220 1.5	22.7 +- 0.7; 3.4	17.7 +- 0.7; 4.4	18.4 +- 1.2
7	92 3.0	22.6 +- 0.7; 3.4	17.6 +- 0.7; 4.3	19.5 +- 1.0
8	155 1.0	21.4 +- 0.6; 3.2	16.5 +- 0.7; 4.2	17.5 +- 1.0
9	130 0.5	23.3 +- 0.7; 3.5	18.3 +- 0.7; 4.4	18.5 +- 1.0
10	70 0.5	23.0 +- 0.7; 3.5	18.0 +- 0.7; 4.4	18.8 +- 1.0
11	25 0.8	22.6 +- 0.7; 3.4	17.6 +- 0.7; 4.3	18.7 +- 0.9
12	315 0.5	23.1 +- 0.7; 3.5	18.0 +- 0.7; 4.4	18.9 +- 1.0
13	290 0.5	29.3 +- 0.9; 4.4	23.9 +- 0.9; 5.1	23.4 +- 2.5
14	270 0.5	23.4 +- 0.7; 3.5	18.3 +- 0.7; 4.4	18.8 +- 1.0
15	245 1.8	23.3 +- 0.7; 3.5	18.2 +- 0.7; 4.4	18.8 +- 0.8
16	285 3.0	22.5 +- 0.7; 3.4	17.5 +- 0.7; 4.3	19.2 +- 0.8
17	240 4.0	21.7 +- 0.7; 3.3	16.7 +- 0.7; 4.2	17.5 +- 0.9
18	198 7.0	21.6 +- 0.6; 3.2	16.7 +- 0.7; 4.2	17.4 +- 1.1
19	173 8.5	22.3 +- 0.7; 3.3	17.3 +- 0.7; 4.3	18.6 +- 0.9
20	150 20.0	22.4 +- 0.7; 3.4	17.4 +- 0.7; 4.3	18.6 +- 0.8
21	114 7.0	21.9 +- 0.7; 3.3	16.9 +- 0.7; 4.3	18.7 +- 1.1
22	120 8.0	22.0 +- 0.7; 3.3	17.0 +- 0.7; 4.3	18.1 +- 0.9
23	134 6.0	24.8 +- 0.7; 3.7	19.6 +- 0.8; 4.6	20.5 +- 1.1
24	110 4.0	25.5 +- 0.8; 3.8	20.3 +- 0.8; 4.7	22.4 +- 1.2
25	85 5.0	22.9 +- 0.7; 3.4	17.9 +- 0.7; 4.4	19.2 +- 0.8
26	65 5.0	24.2 +- 0.7; 3.6	19.1 +- 0.8; 4.5	20.8 +- 1.0
27	53 4.0	22.2 +- 0.7; 3.3	17.3 +- 0.7; 4.3	18.5 +- 1.2
28	44 8.0	23.8 +- 0.7; 3.6	18.7 +- 0.8; 4.5	20.3 +- 1.0
29	33 10.0	23.2 +- 0.7; 3.5	18.2 +- 0.7; 4.4	19.1 +- 1.5
30	8 9.5	23.7 +- 0.7; 3.6	18.6 +- 0.8; 4.5	20.1 +- 0.9
31	215 15.0	20.9 +- 0.6; 3.1	16.0 +- 0.7; 4.2	17.7 +- 0.7

Transit Dose = 4.0 +- 0.4; 3.1

WASHINGTON NUCLEAR 2
For the period 961205-970410

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	18.6 +- 0.0	1
11.26 - 33.75 NNE	17.9 +- 0.4	2
33.76 - 56.25 NE	18.0 +- 1.0	2
56.26 - 78.75 ENE	18.5 +- 0.8	2
78.76 - 101.25 E	17.7 +- 0.2	2
101.26 - 123.75 ESE	18.1 +- 1.9	3
123.76 - 146.25 SE	18.9 +- 1.0	2
146.26 - 168.75 SSE	17.0 +- 0.8	5
168.76 - 191.25 S	17.3 +- 0.0	1
191.26 - 213.75 SSW	17.1 +- 0.6	2
213.76 - 236.25 SW	17.7 +- 0.0	1
236.26 - 258.75 WSW	17.5 +- 1.1	2
258.76 - 281.25 W	18.3 +- 0.0	1
281.26 - 303.75 WNW	20.7 +- 4.5	2
303.76 - 326.25 NW	18.0 +- 0.0	1
326.26 - 348.75 NNW	No Data +- No Data	0

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	18.4 +- 2.0	10
2 - 5	18.1 +- 1.2	8
> 5	17.6 +- 1.0	11
Upwind Control	16.4 +- 0.5	2

NRC TLD DOSES FOR WNP-2 AREA

Miles

Legend

Water

Highways

--- Railroads

--- Roads

Plant..site

WATERFORD

TLD Direct Radiation Environmental Monitoring

For the period 961209-970429 142 Days

Field Time: 74 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	101 0.4	18.8 +- 0.6; 2.8	16.8 +- 0.8; 4.6	15.8 +- 1.2
2	116 1.1	16.7 +- 0.5; 2.5	14.3 +- 0.7; 4.4	14.8 +- 1.9
3	132 1.3	19.8 +- 0.6; 3.0	18.1 +- 0.8; 4.8	18.0 +- 1.3
4	160 1.8	19.4 +- 0.6; 2.9	17.5 +- 0.8; 4.7	15.6 +- 1.3
5	183 1.4	18.6 +- 0.6; 2.8	16.5 +- 0.8; 4.6	15.7 +- 1.3
6	202 1.2	19.8 +- 0.6; 3.0	18.0 +- 0.8; 4.8	15.7 +- 1.5
7	226 1.2	18.6 +- 0.6; 2.8	16.6 +- 0.8; 4.6	15.4 +- 1.0
8	248 1.3	20.2 +- 0.6; 3.0	18.5 +- 0.8; 4.8	17.2 +- 1.1
9	265 1.9	16.1 +- 0.5; 2.4	13.6 +- 0.7; 4.3	14.2 +- 1.9
10	186 4.2	18.5 +- 0.6; 2.8	16.4 +- 0.8; 4.6	17.4 +- 0.9
11	315 4.4	17.0 +- 0.5; 2.6	14.6 +- 0.7; 4.4	16.1 +- 1.3
12	328 4.1	18.4 +- 0.6; 2.8	16.3 +- 0.8; 4.6	17.3 +- 1.1
13	309 0.8	19.6 +- 0.6; 2.9	17.8 +- 0.8; 4.8	15.2 +- 0.9
14	273 0.9	19.9 +- 0.6; 3.0	18.2 +- 0.8; 4.8	17.0 +- 2.1
15	292 0.8	16.4 +- 0.5; 2.5	13.9 +- 0.7; 4.3	13.3 +- 1.3
16	335 0.5	17.1 +- 0.5; 2.6	14.7 +- 0.7; 4.4	13.8 +- 1.0
17	120 4.3	18.6 +- 0.6; 2.8	16.5 +- 0.8; 4.6	14.1 +- 1.0
18	145 3.5	Missing Dosimeter	No Net Data	14.7 +- 1.3
19	153 8.1	19.4 +- 0.6; 2.9	17.5 +- 0.8; 4.7	16.1 +- 1.2
20	133 8.1	19.1 +- 0.6; 2.9	17.1 +- 0.8; 4.7	16.0 +- 1.1
21	116 6.7	19.7 +- 0.6; 2.9	17.8 +- 0.8; 4.8	15.4 +- 1.3
22	95 4.3	19.1 +- 0.6; 2.9	17.2 +- 0.8; 4.7	15.3 +- 1.0
23	86 2.6	18.7 +- 0.6; 2.8	16.6 +- 0.8; 4.6	15.5 +- 1.0
24	66 4.2	21.1 +- 0.6; 3.2	19.6 +- 0.9; 5.0	18.4 +- 1.2
25	37 3.5	19.6 +- 0.6; 2.9	17.7 +- 0.8; 4.7	16.8 +- 1.1
26	23 3.8	18.8 +- 0.6; 2.8	16.7 +- 0.8; 4.6	14.5 +- 0.9
27	350 4.9	19.4 +- 0.6; 2.9	17.5 +- 0.8; 4.7	15.5 +- 0.9
28	335 5.0	19.2 +- 0.6; 2.9	17.3 +- 0.8; 4.7	15.7 +- 1.1
29	6 2.8	17.2 +- 0.5; 2.6	14.9 +- 0.7; 4.4	14.1 +- 1.0
30	356 1.1	20.0 +- 0.6; 3.0	18.2 +- 0.8; 4.8	16.1 +- 1.9
31	15 0.8	17.8 +- 0.5; 2.7	15.5 +- 0.8; 4.5	15.8 +- 1.7
32	40 0.8	16.6 +- 0.5; 2.5	14.1 +- 0.7; 4.4	13.8 +- 1.5
33	69 1.1	Missing Dosimeter	No Net Data	15.5 +- 2.7
34	292 15.0	20.1 +- 0.6; 3.0	18.4 +- 0.8; 4.8	15.5 +- 1.6
35	282 27.0	21.3 +- 0.6; 3.2	19.8 +- 0.9; 5.0	17.7 +- 1.5
36	268 21.0	18.6 +- 0.6; 2.8	16.6 +- 0.8; 4.6	14.5 +- 1.6

Transit Dose = 5.0 +- 0.3; 2.6

WATERFORD

For the period 961209-970429

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	16.9 +- 1.8	3
11.26 - 33.75 NNE	16.1 +- 0.9	2
33.76 - 56.25 NE	15.9 +- 2.6	2
56.26 - 78.75 ENE	19.6 +- 0.0	1
78.76 - 101.25 E	16.9 +- 0.3	3
101.26 - 123.75 ESE	16.2 +- 1.8	3
123.76 - 146.25 SE	17.6 +- 0.7	2
146.26 - 168.75 SSE	17.5 +- 0.0	2
168.76 - 191.25 S	16.5 +- 0.1	2
191.26 - 213.75 SSW	18.0 +- 0.0	1
213.76 - 236.25 SW	16.6 +- 0.0	1
236.26 - 258.75 WSW	18.5 +- 0.0	1
258.76 - 281.25 W	15.9 +- 3.3	2
281.26 - 303.75 WNW	13.9 +- 0.0	1
303.76 - 326.25 NW	16.2 +- 2.2	2
326.26 - 348.75 NNW	16.1 +- 1.3	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	16.4 +- 1.8	16
2 - 5	16.8 +- 1.3	12
> 5	17.5 +- 0.4	3
Upwind Control	18.3 +- 1.6	3

NRC TLD DOSES FOR WATERFORD AREA

Miles

Legend

Water
Highways

Railroads
Roads

Plant..site

WATTS BAR

TLD Direct Radiation Environmental Monitoring

For the period 961211-970421 132 Days

Field Time: 86 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	337 0.9	20.2 +- 0.6; 3.0	18.9 +- 0.7; 4.2	17.2 +- 2.2
2	314 2.1	20.0 +- 0.6; 3.0	18.7 +- 0.7; 4.2	17.4 +- 2.1
3	297 1.9	20.2 +- 0.6; 3.0	18.9 +- 0.7; 4.2	17.2 +- 2.2
4	272 2.0	19.2 +- 0.6; 2.9	18.0 +- 0.7; 4.1	16.8 +- 2.2
5	251 1.9	21.2 +- 0.6; 3.2	20.0 +- 0.7; 4.3	19.0 +- 2.3
6	235 1.8	22.8 +- 0.7; 3.4	21.6 +- 0.8; 4.5	20.3 +- 2.4
7	230 3.8	22.3 +- 0.7; 3.3	21.1 +- 0.8; 4.5	19.5 +- 2.3
8	208 3.6	17.9 +- 0.5; 2.7	16.5 +- 0.6; 4.0	18.1 +- 2.3
9	249 4.2	21.5 +- 0.6; 3.2	20.4 +- 0.7; 4.4	16.2 +- 3.0
10	266 3.1	19.5 +- 0.6; 2.9	18.2 +- 0.7; 4.1	16.8 +- 2.3
11	289 3.3	17.4 +- 0.5; 2.6	16.0 +- 0.6; 3.9	14.3 +- 2.0
12	310 4.7	16.5 +- 0.5; 2.5	15.1 +- 0.6; 3.8	14.5 +- 2.1
13	337 3.6	18.0 +- 0.5; 2.7	16.6 +- 0.6; 4.0	15.8 +- 2.8
14	330 7.0	18.0 +- 0.5; 2.7	16.7 +- 0.6; 4.0	15.3 +- 2.1
15	350 4.7	21.4 +- 0.6; 3.2	20.2 +- 0.7; 4.4	18.6 +- 2.4
16	7 1.1	22.8 +- 0.7; 3.4	21.7 +- 0.8; 4.5	20.3 +- 2.5
17	23 1.6	16.0 +- 0.5; 2.4	14.5 +- 0.6; 3.7	13.3 +- 2.3
18	41 2.3	18.5 +- 0.6; 2.8	17.2 +- 0.6; 4.0	16.1 +- 2.3
19	69 1.3	20.8 +- 0.6; 3.1	19.6 +- 0.7; 4.3	18.8 +- 2.1
20	89 1.2	20.0 +- 0.6; 3.0	18.7 +- 0.7; 4.2	19.4 +- 2.2
21	114 1.1	20.1 +- 0.6; 3.0	18.9 +- 0.7; 4.2	16.0 +- 2.2
22	141 1.0	21.5 +- 0.6; 3.2	20.3 +- 0.7; 4.4	18.9 +- 2.1
23	163 1.1	23.3 +- 0.7; 3.5	22.2 +- 0.8; 4.6	21.9 +- 2.5
24	187 1.1	19.2 +- 0.6; 2.9	17.9 +- 0.7; 4.1	18.3 +- 2.8
25	203 1.2	17.1 +- 0.5; 2.6	15.7 +- 0.6; 3.9	17.2 +- 2.7
26	184 5.9	22.8 +- 0.7; 3.4	21.7 +- 0.8; 4.5	18.4 +- 3.0
27	176 4.5	21.4 +- 0.6; 3.2	20.2 +- 0.7; 4.4	17.5 +- 2.4
28	161 3.5	19.1 +- 0.6; 2.9	17.8 +- 0.7; 4.1	16.5 +- 2.2
29	144 3.0	18.9 +- 0.6; 2.8	17.6 +- 0.7; 4.1	16.7 +- 2.3
30	117 3.1	19.3 +- 0.6; 2.9	18.0 +- 0.7; 4.1	15.9 +- 2.5
31	97 4.0	Damaged Dosimeter	No Net Data	16.4 +- 2.3
32	76 4.1	17.7 +- 0.5; 2.6	16.3 +- 0.6; 3.9	14.1 +- 2.4
33	32 4.1	19.1 +- 0.6; 2.9	17.8 +- 0.7; 4.1	17.0 +- 2.1
34	36 4.7	16.2 +- 0.5; 2.4	14.8 +- 0.6; 3.8	13.7 +- 2.0
35	38 19.0	19.8 +- 0.6; 3.0	18.5 +- 0.7; 4.2	16.1 +- 2.4
36	38 19.0	18.7 +- 0.6; 2.8	17.4 +- 0.7; 4.0	17.1 +- 3.2
37	38 19.0	20.3 +- 0.6; 3.1	19.1 +- 0.7; 4.2	17.3 +- 2.3

Transit Dose = 2.1 +- 0.3; 2.7

WATTS BAR
For the period 961211-970421

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	20.9 +- 1.1	2
11.26 - 33.75 NNE	16.2 +- 2.3	2
33.76 - 56.25 NE	16.0 +- 1.7	2
56.26 - 78.75 ENE	18.0 +- 2.4	2
78.76 - 101.25 E	18.7 +- 0.0	1
101.26 - 123.75 ESE	18.5 +- 0.6	2
123.76 - 146.25 SE	18.9 +- 1.9	2
146.26 - 168.75 SSE	20.0 +- 3.2	2
168.76 - 191.25 S	19.9 +- 1.9	3
191.26 - 213.75 SSW	16.1 +- 0.6	2
213.76 - 236.25 SW	21.4 +- 0.4	2
236.26 - 258.75 WSW	20.2 +- 0.3	2
258.76 - 281.25 W	18.1 +- 0.2	2
281.26 - 303.75 WNW	17.5 +- 2.1	2
303.76 - 326.25 NW	16.9 +- 2.5	2
326.26 - 348.75 NNW	17.4 +- 1.3	3

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	19.1 +- 2.2	14
2 - 5	17.8 +- 1.9	17
> 5	19.2 +- 3.6	2
Upwind Control	18.3 +- 0.9	3

NRC TLD DOSES FOR WATTS BAR AREA

Miles

0 2 4

Legend

Water

Highways

Railroads

Roads

Plant..site

WOLF CREEK

TLD Direct Radiation Environmental Monitoring

For the period 961209-970415 128 Days

Field Time: 87 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)		Gross Exposure (mR) +-Rdm; Tot.		Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.		Hist. Range Net Exp Rate +-1 Std Dev	
1	316	2.9	23.5	+- 0.7; 3.5	18.8	+- 0.8; 4.8	19.4	+- 1.5
2	330	1.8	22.9	+- 0.7; 3.4	18.1	+- 0.8; 4.7	18.4	+- 1.2
3	360	2.8	21.1	+- 0.6; 3.2	16.3	+- 0.8; 4.5	18.6	+- 1.2
4	355	1.6	24.1	+- 0.7; 3.6	19.4	+- 0.8; 4.8	19.2	+- 1.2
5	31	1.8	22.8	+- 0.7; 3.4	18.0	+- 0.8; 4.7	19.5	+- 1.2
6	47	2.0	21.8	+- 0.7; 3.3	17.0	+- 0.8; 4.6	16.6	+- 1.4
7	70	1.6	20.9	+- 0.6; 3.1	16.1	+- 0.8; 4.5	17.7	+- 1.0
8	90	1.7	23.7	+- 0.7; 3.6	19.0	+- 0.8; 4.8	20.0	+- 1.3
9	111	2.4	22.5	+- 0.7; 3.4	17.8	+- 0.8; 4.7	19.3	+- 1.2
10	137	2.5	24.1	+- 0.7; 3.6	19.4	+- 0.8; 4.8	18.8	+- 1.0
11	157	3.4	24.8	+- 0.7; 3.7	20.2	+- 0.9; 4.9	20.4	+- 1.1
12	184	3.3	23.3	+- 0.7; 3.5	18.6	+- 0.8; 4.7	19.8	+- 1.1
13	213	2.9	20.9	+- 0.6; 3.1	16.1	+- 0.8; 4.5	18.7	+- 2.1
14	233	2.4	22.4	+- 0.7; 3.4	17.7	+- 0.8; 4.6	19.5	+- 1.4
15	248	2.2	23.2	+- 0.7; 3.5	18.5	+- 0.8; 4.7	18.9	+- 1.2
16	278	2.1	24.5	+- 0.7; 3.7	19.8	+- 0.9; 4.9	19.3	+- 1.1
17	270	3.4	19.8	+- 0.6; 3.0	15.0	+- 0.7; 4.4	15.6	+- 0.9
18	263	4.2	23.7	+- 0.7; 3.6	19.0	+- 0.8; 4.8	21.1	+- 1.5
19	257	5.0	23.9	+- 0.7; 3.6	19.2	+- 0.8; 4.8	19.4	+- 1.1
20	280	3.9	21.6	+- 0.6; 3.2	16.8	+- 0.8; 4.5	18.2	+- 1.3
21	298	3.9	23.6	+- 0.7; 3.5	18.9	+- 0.8; 4.8	19.4	+- 1.0
22	319	4.8	21.9	+- 0.7; 3.3	17.1	+- 0.8; 4.6	17.5	+- 1.2
23	332	5.0	23.0	+- 0.7; 3.4	18.2	+- 0.8; 4.7	19.1	+- 1.5
24	19	3.9	22.6	+- 0.7; 3.4	17.8	+- 0.8; 4.7	19.2	+- 1.0
25	35	4.4	20.3	+- 0.6; 3.1	15.5	+- 0.7; 4.4	16.6	+- 1.0
26	67	4.3	20.9	+- 0.6; 3.1	16.1	+- 0.8; 4.5	17.7	+- 1.2
27	88	4.1	21.0	+- 0.6; 3.2	16.2	+- 0.8; 4.5	19.0	+- 1.8
28	110	4.5	23.1	+- 0.7; 3.5	18.4	+- 0.8; 4.7	19.5	+- 1.0
29	128	4.4	22.5	+- 0.7; 3.4	17.8	+- 0.8; 4.7	19.6	+- 1.6
30	112	16.0	20.2	+- 0.6; 3.0	15.4	+- 0.7; 4.4	16.6	+- 1.4
31	127	9.4	21.3	+- 0.6; 3.2	16.5	+- 0.8; 4.5	16.6	+- 0.8
32	62	11.0	21.4	+- 0.6; 3.2	16.6	+- 0.8; 4.5	16.9	+- 1.4
33	153	5.2	21.2	+- 0.6; 3.2	16.4	+- 0.8; 4.5	18.3	+- 1.6
34	174	4.7	22.5	+- 0.7; 3.4	17.7	+- 0.8; 4.7	19.9	+- 1.5
35	197	5.2	24.6	+- 0.7; 3.7	20.0	+- 0.9; 4.9	20.5	+- 1.5
36	224	4.8	22.6	+- 0.7; 3.4	17.8	+- 0.8; 4.7	18.1	+- 0.8
37 *	220	13.8	22.7	+- 0.7; 3.4	18.0	+- 0.8; 4.7	15.4	+- 0.7
38	253	6.5	23.5	+- 0.7; 3.5	18.7	+- 0.8; 4.8	20.2	+- 1.3
39	278	10.0	23.0	+- 0.7; 3.4	18.3	+- 0.8; 4.7	18.6	+- 1.3
40	285	15.0	19.5	+- 0.6; 2.9	14.6	+- 0.7; 4.3	16.5	+- 0.9
41	292	6.7	22.3	+- 0.7; 3.3	17.6	+- 0.8; 4.6	17.9	+- 1.4
42	345	13.0	23.5	+- 0.7; 3.5	18.8	+- 0.8; 4.8	20.1	+- 1.3
43	5	7.5	23.5	+- 0.7; 3.5	18.8	+- 0.8; 4.8	19.1	+- 1.3
44	20	8.3	23.5	+- 0.7; 3.5	18.8	+- 0.8; 4.8	19.7	+- 1.0
45	315	7.5	23.7	+- 0.7; 3.5	19.0	+- 0.8; 4.8	20.7	+- 1.3
46	341	7.7	24.7	+- 0.7; 3.7	20.0	+- 0.9; 4.9	19.9	+- 1.1
47	355	1.0	21.8	+- 0.7; 3.3	17.0	+- 0.8; 4.6	18.2	+- 1.2

Transit Dose = 5.3 +- 0.4; 3.0

* The result for the indicated location was outside the expected range. Refer to page 4 of this report for more information.

WOLF CREEK

For the period 961209-970415

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	17.9 +- 1.4	4
11.26 - 33.75 NNE	18.2 +- 0.5	3
33.76 - 56.25 NE	16.3 +- 1.1	2
56.26 - 78.75 ENE	16.3 +- 0.3	3
78.76 - 101.25 E	17.6 +- 2.0	2
101.26 - 123.75 ESE	17.2 +- 1.6	3
123.76 - 146.25 SE	17.9 +- 1.4	3
146.26 - 168.75 SSE	18.3 +- 2.6	2
168.76 - 191.25 S	18.2 +- 0.6	2
191.26 - 213.75 SSW	18.0 +- 2.7	2
213.76 - 236.25 SW	17.8 +- 0.1	3
236.26 - 258.75 WSW	18.8 +- 0.4	3
258.76 - 281.25 W	17.8 +- 1.9	5
281.26 - 303.75 WNW	17.0 +- 2.2	3
303.76 - 326.25 NW	18.3 +- 1.0	3
326.26 - 348.75 NNW	18.8 +- 0.9	4

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	17.8 +- 1.2	7
2 - 5	17.8 +- 1.4	25
> 5	17.8 +- 1.6	15
Upwind Control	No Data +- No Data	0

NRC TLD DOSES FOR WOLF CREEK AREA

Miles

Legend

Water

--- Railroads

Plant..site

Highways

Roads

YANKEE ROWE

TLD Direct Radiation Environmental Monitoring

For the period 961212-970417 127 Days

Field Time: 90 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	0 0.8	18.6 +- 0.6; 2.8	15.2 +- 0.6; 4.0	18.2 +- 1.9
2	265 14.0	18.5 +- 0.6; 2.8	15.1 +- 0.6; 4.0	15.9 +- 1.2
3	137 12.0	19.6 +- 0.6; 2.9	16.2 +- 0.7; 4.1	16.0 +- 1.5
5	85 2.2	18.5 +- 0.6; 2.8	15.1 +- 0.6; 4.0	15.7 +- 1.8
6	118 2.6	19.0 +- 0.6; 2.9	15.6 +- 0.7; 4.1	15.5 +- 1.5
7	137 2.1	19.0 +- 0.6; 2.8	15.6 +- 0.7; 4.1	17.4 +- 1.8
8	153 1.7	18.1 +- 0.5; 2.7	14.7 +- 0.6; 4.0	16.1 +- 1.1
9	176 1.1	18.4 +- 0.6; 2.8	15.0 +- 0.6; 4.0	16.0 +- 1.3
10	203 0.5	20.3 +- 0.6; 3.1	16.9 +- 0.7; 4.2	17.0 +- 2.0
11	219 0.6	19.3 +- 0.6; 2.9	15.9 +- 0.7; 4.1	16.9 +- 1.3
12	239 1.1	19.5 +- 0.6; 2.9	16.1 +- 0.7; 4.1	18.9 +- 2.5
13	272 1.8	17.5 +- 0.5; 2.6	14.1 +- 0.6; 3.9	17.6 +- 2.1
14	292 1.3	18.8 +- 0.6; 2.8	15.4 +- 0.7; 4.0	18.1 +- 2.0
15	315 1.6	19.9 +- 0.6; 3.0	16.5 +- 0.7; 4.1	18.4 +- 2.0
16	348 1.4	19.6 +- 0.6; 2.9	16.2 +- 0.7; 4.1	18.0 +- 1.7
17	358 2.8	18.4 +- 0.6; 2.8	15.0 +- 0.6; 4.0	16.8 +- 1.8
18	21 2.8	16.4 +- 0.5; 2.5	13.0 +- 0.6; 3.8	15.2 +- 1.7
19	43 5.8	19.2 +- 0.6; 2.9	15.8 +- 0.7; 4.1	16.8 +- 1.3
20	75 6.0	21.6 +- 0.6; 3.2	18.2 +- 0.7; 4.3	18.0 +- 2.0
21	98 6.0	17.9 +- 0.5; 2.7	14.5 +- 0.6; 3.9	14.9 +- 1.4
22	104 5.2	16.1 +- 0.5; 2.4	12.7 +- 0.6; 3.8	13.7 +- 1.3
23	133 5.7	18.3 +- 0.5; 2.7	14.9 +- 0.6; 4.0	14.0 +- 1.7
24	157 7.5	18.5 +- 0.6; 2.8	15.1 +- 0.6; 4.0	14.4 +- 1.7
25	184 6.3	17.8 +- 0.5; 2.7	14.4 +- 0.6; 3.9	16.3 +- 1.9
27	225 5.9	19.7 +- 0.6; 3.0	16.3 +- 0.7; 4.1	17.3 +- 1.7
29	269 3.5	19.8 +- 0.6; 3.0	16.4 +- 0.7; 4.1	17.4 +- 1.9
32	342 3.3	19.7 +- 0.6; 3.0	16.3 +- 0.7; 4.1	17.2 +- 1.6
34	48 7.3	19.8 +- 0.6; 3.0	16.4 +- 0.7; 4.1	17.4 +- 1.6
35	39 2.3	16.3 +- 0.5; 2.5	12.9 +- 0.6; 3.8	14.1 +- 1.6
47	260 9.6	19.5 +- 0.6; 2.9	16.1 +- 0.7; 4.1	16.7 +- 1.3
48	261 9.0	21.0 +- 0.6; 3.1	17.6 +- 0.7; 4.3	18.7 +- 1.7

Transit Dose = 3.4 +- 0.3; 2.9

YANKEE ROWE

For the period 961212-970417

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	15.1 +- 0.1	2
11.26 - 33.75 NNE	13.0 +- 0.0	1
33.76 - 56.25 NE	15.0 +- 1.8	3
56.26 - 78.75 ENE	18.2 +- 0.0	1
78.76 - 101.25 E	14.8 +- 0.4	2
101.26 - 123.75 ESE	14.2 +- 2.0	2
123.76 - 146.25 SE	15.5 +- 0.7	3
146.26 - 168.75 SSE	14.9 +- 0.2	2
168.76 - 191.25 S	14.7 +- 0.5	2
191.26 - 213.75 SSW	16.9 +- 0.0	1
213.76 - 236.25 SW	16.1 +- 0.3	2
236.26 - 258.75 WSW	16.1 +- 0.0	1
258.76 - 281.25 W	15.2 +- 1.2	3
281.26 - 303.75 WNW	15.4 +- 0.0	1
303.76 - 326.25 NW	16.5 +- 0.0	1
326.26 - 348.75 NNW	16.2 +- 0.1	2

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	15.6 +- 0.9	10
2 - 5	15.0 +- 1.3	8
> 5	15.4 +- 1.4	11
Upwind Control	16.8 +- 1.0	2

NRC TLD DOSES FOR YANKEE ROWE AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant site

ZION

TLD Direct Radiation Environmental Monitoring

For the period 961210-970416 128 Days

Field Time: 85 Days

NRC Sta	Location Azimuth/Dist (Deg)/(Mi)	Gross Exposure (mR) +-Rdm; Tot.	Net Exposure Rate (mR/Std. Qtr.) +-Rdm; Tot.	Hist. Range Net Exp Rate +-1 Std Dev
1	310 0.8	16.7 +- 0.5; 2.5	14.4 +- 0.6; 3.9	15.5 +- 1.5
2	192 1.0	15.9 +- 0.5; 2.4	13.5 +- 0.6; 3.8	13.1 +- 1.1
3	187 1.9	17.5 +- 0.5; 2.6	15.2 +- 0.6; 4.0	14.6 +- 1.4
4	219 2.4	20.3 +- 0.6; 3.0	18.2 +- 0.7; 4.3	17.4 +- 1.3
5	257 1.8	20.1 +- 0.6; 3.0	18.0 +- 0.7; 4.3	16.9 +- 1.5
6	250 1.2	17.0 +- 0.5; 2.5	14.7 +- 0.6; 3.9	16.3 +- 1.4
7	293 1.6	17.8 +- 0.5; 2.7	15.6 +- 0.7; 4.0	17.1 +- 1.0
8	310 1.8	15.5 +- 0.5; 2.3	13.1 +- 0.6; 3.8	15.0 +- 1.4
9	343 2.6	18.3 +- 0.5; 2.7	16.1 +- 0.7; 4.1	15.4 +- 1.3
10	356 4.5	16.4 +- 0.5; 2.5	14.1 +- 0.6; 3.9	14.7 +- 1.1
11	337 4.5	18.1 +- 0.5; 2.7	15.9 +- 0.7; 4.1	17.0 +- 1.1
12	310 4.0	19.1 +- 0.6; 2.9	17.0 +- 0.7; 4.2	19.0 +- 1.6
13	293 3.5	21.9 +- 0.7; 3.3	19.9 +- 0.8; 4.5	19.9 +- 1.5
14	280 4.5	21.0 +- 0.6; 3.2	19.0 +- 0.7; 4.4	18.8 +- 1.3
15	232 3.2	20.5 +- 0.6; 3.1	18.4 +- 0.7; 4.3	18.0 +- 1.4
16	220 3.5	19.3 +- 0.6; 2.9	17.1 +- 0.7; 4.2	18.3 +- 1.2
17	198 4.5	18.5 +- 0.6; 2.8	16.3 +- 0.7; 4.1	16.4 +- 1.5
18	206 2.8	18.9 +- 0.6; 2.8	16.7 +- 0.7; 4.2	15.5 +- 1.4
19	327 1.7	16.5 +- 0.5; 2.5	14.2 +- 0.6; 3.9	15.5 +- 1.5
20	197 15.0	19.9 +- 0.6; 3.0	17.8 +- 0.7; 4.3	19.3 +- 1.4
21	352 7.9	16.8 +- 0.5; 2.5	14.5 +- 0.6; 3.9	15.1 +- 1.2
22	348 9.3	18.1 +- 0.5; 2.7	15.9 +- 0.7; 4.1	15.3 +- 1.6
23	336 8.5	17.2 +- 0.5; 2.6	14.9 +- 0.6; 4.0	17.8 +- 1.8
24	314 5.8	18.1 +- 0.5; 2.7	15.9 +- 0.7; 4.1	17.7 +- 1.2
25	220 6.3	18.6 +- 0.6; 2.8	16.4 +- 0.7; 4.1	16.6 +- 1.2
26	195 8.0	Missing Dosimeter	No Net Data	15.6 +- 1.2
28	197 15.0	20.2 +- 0.6; 3.0	18.1 +- 0.7; 4.3	18.9 +- 1.2
30	320 9.8	21.1 +- 0.6; 3.2	19.1 +- 0.7; 4.4	18.6 +- 1.6
31	229 8.0	18.5 +- 0.6; 2.8	16.3 +- 0.7; 4.1	16.7 +- 1.1
32	193 15.0	17.7 +- 0.5; 2.7	15.5 +- 0.6; 4.0	18.8 +- 1.6

Transit Dose = 3.1 +- 0.3; 2.7

ZION

For the period 961210-970416

TLD Direct Radiation Environmental Monitoring

Azimuth (degrees)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
348.76 - 11.25 N	14.3 +- 0.3	2
11.26 - 33.75 NNE	No Data +- No Data	0
33.76 - 56.25 NE	No Data +- No Data	0
56.26 - 78.75 ENE	No Data +- No Data	0
78.76 - 101.25 E	No Data +- No Data	0
101.26 - 123.75 ESE	No Data +- No Data	0
123.76 - 146.25 SE	No Data +- No Data	0
146.26 - 168.75 SSE	No Data +- No Data	0
168.76 - 191.25 S	15.2 +- 0.0	1
191.26 - 213.75 SSW	15.5 +- 1.7	3
213.76 - 236.25 SW	17.3 +- 1.0	5
236.26 - 258.75 WSW	16.3 +- 2.3	2
258.76 - 281.25 W	19.0 +- 0.0	1
281.26 - 303.75 WNW	17.7 +- 3.0	2
303.76 - 326.25 NW	15.9 +- 2.3	5
326.26 - 348.75 NNW	15.4 +- 0.8	5

Distance From Reactor (miles)	Ave. Exposure Rate (mR/Std.Qtr.) +- Std.Dev.	Number In Group
0 - 2	14.8 +- 1.5	8
2 - 5	17.1 +- 1.6	11
> 5	16.1 +- 1.5	7
Upwind Control	17.1 +- 1.4	3

NRC TLD DOSES FOR ZION AREA

Miles

Legend

Water

Highways

Railroads

Roads

Plant..site

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11. ABSTRACT (200 words or less)

This report provides the status and results of the NRC Thermoluminescent Dosimeter (TLD) Direct Radiation Monitoring Network. It presents the radiation levels measured in the vicinity of NRC licensed facilities throughout the country for the first quarter of 1997.

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

**Thermoluminescent Dosimeter (TLD) Direct Radiation Monitoring
Network**

ambient radiation levels

13. AVAILABILITY STATEMENT

Unlimited

14. SECURITY CLASSIFICATION

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