RADIOLOGICAL IMPACT ASSESSMENT

BROWNS FERRY NUCLEAR PLANT

JANUARY-JUNE 1977

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Introduction

Potential doses to individuals and populations have been calculated for the time period January 1 through June 30, 1977. The calculations have been made using the measured releases listed in Tables 1 and 2 for radioactivity in both gaseous and liquid effluents. Dispersion of radioactive effluents in the environment has been calculated using meteorological data and river flow data measured during this period.

Meteorological Data

Meteorological data were measured, and average quarterly joint frequency distributions (JFD's) for ground-level and stack releases were calculated. The ground-level JFD was derived from wind speeds and directions measured with a sensor located 33 feet above ground level and from the vertical temperature gradient between 33 and 150 feet. The JFD's for elevated releases were based on wind directions and wind speeds measured at 300 feet. Stability class D was assumed to persist at the effluent release level of 600 feet for the entire period. Examination of rawinsonde data from TVA's Colbert Steam Plant (40 miles west of BFNP) indicates that, for ΔT-based stabilities at levels above 600 feet, the frequencies of stability classes D and E total more than 95% of all occurrences. For an elevated release, assumption of class D instead of E yields conservative results.

The wind speeds were divided into nine wind-speed ranges. For calculational purposes, calms were distributed into the lowest wind speed range (0-0.5 mph) according to the directional probabilities in the 0.6-1.4 mph range. The quarterly JFD's are listed in Tables 3 and 4 for ground-level releases and in Tables 5 and 6 for elevated releases.

Gaseous Effluents

Ground-level and elevated (stack) dispersion models were used to estimate radioactivity concentrations in the environment. Radionuclides in gaseous effluents were assumed to be released continuously. Dose estimates for external air exposures were made at the site boundary. External doses to the skin and total body were estimated for the nearest residence in each sector. Internal doses to the thyroid were estimated from the ingestion, inhalation, and external exposure pathways. The internal doses were calculated for farms where milk is consumed without commercial preparation. Doses are given in Tables 7 and 8 for these individual exposure pathways at the maximum exposure locations.

Population doses were calculated for an estimated 627,000 persons living within a 50-mile radius of the plant site. Population doses were calculated assuming that each individual consumes vegetables and meat produced within the sector annuli in which he resides. Doses from milk ingestion were calculated from data on milk production within 50 miles of the plant site. Doses from external pathways, inhalation, and beef and vegetable ingestion are based on the 50-mile human population distribution. Population dose estimates for the gaseous effluents are presented in Table 9.

Liquid Effluents

Doses from liquid effluents were calculated using measured hydraulic data. The average river flows at the plant site were 55,000 cfs for the first quarter and 52,900 cfs for the second quarter. Radioactivity concentrations in the Tennessee River were calculated assuming that releases in liquid effluents were continuous.

Doses were calculated for recreation, consumption of fish, and drinking water from public water supplies between the plant site and the mouth of the Tennessee River. The maximum individual dose from drinking water was assumed to be that calculated for the nearest downstream public water supply (Champion Paper Company). The maximum potential recreation dose was calculated for a location immediately downstream from the plant outfall. Dose estimates for the liquid effluents are presented in Tables 10 and 11.

Direct Radiation

Analysis of onsite thermoluminescent dosimetry (TLD) data showed that radioactivity levels were not statistically different from levels at offsite locations. This indicates that there was no identifiable increase in dose rate levels attributable to direct radiation from plant equipment and/or gaseous effluents. Fluctuations in natural background dose rates and in TLD readings tend to mask any small increments which may be due to plant operations.

An experimental program is being conducted using high-pressure ionization chamber measurements to relate reactor power level to direct

radiation dose rates. However, results of this work are not available for estimating dose rates during this reporting period.

Dose Summary

Doses calculated for this semiannual period result from the low-level effluent releases of Units 1, 2, and 3. For gaseous effluents released in the first quarter, the maximum gamma and beta air doses were calculated to be .65 and 5.17 mrad, respectively. During the second quarter, the gamma and beta air doses were .85 and 6.42 mrad, respectively. These quarterly doses are well below the annual air dose limits (as specified in Appendix I to 10 CFR 50) of 30 and 60 mrad for gamma and beta radiation, respectively, for three reactor units. (All doses and dose limits referred to will be totals for the three reactor units.) The maximum doses from external sources to the skin and total body during the first quarter were calculated to be 1.81 and .40 mrem. During the second quarter, the skin and total body doses were 2.38 and .48 mrem, respectively. These compare with annual dose limits of 45 mrem to the skin and 15 mrem to the total body. Internal doses to the maximum exposed organ, i.e., the thyroid, were estimated to be .26 and .19 mrem for the first and second quarter. These doses result from the ingestion of milk, meat, and vegetables, inhalation, and from exposures to external sources of radiation.

For liquid effluents released in the first quarter, the maximum doses to the total body and the maximum exposed organ, i.e., thyroid,

were calculated to be .002 and .006 mrem, respectively. In the second quarter, the maximum doses to the total body and thyroid were .005 and .02 mrem, respectively. These compare with annual dose limits as specified in Appendix I to 10 CFR 50 of 9 and 30 mrem to the total body and maximum exposed organ (thyroid), respectively, for three units.

Population doses from gaseous effluents during the first quarter were estimated to be 1.91 man-rem to the total body and 1.37 man-rem to the thyroid. For the second quarter, population doses were .44 man-rem to the total body and .96 man-rem to the thyroid.

From liquid releases during the first quarter, the total population along the Tennessee River was estimated to receive 0.07 man-rem to the total body and 0.2 man-rem to the maximum exposed organ (G.I. tract). For the second quarter, the Tennessee River population was estimated to receive 0.2 man-rem to the total body and 0.4 man-rem to the maximum exposed organ (thyroid).

In summary, all doses calculated were below the limits of Appendix I to 10 CFR 50 and below the limits specified in the Browns Ferry Nuclear Plant technical specifications for plant operation.

TABLE 1

BFNP GASEOUS EFFLUENT RELEASES

Radionuclide	Ground-Level Releases		Elevated Releases	
	First Quarter, 1976 (Ci)	Second Quarter, 1976 (Ci)	First Quarter, 1976 (Ci)	Second Quarter, 1976 (Ci)
H-3	4.03E+0	5.70E+0	2.41E-1	1.67E+0
Ar-41	<4.99E+1	<1.26E+2	<7.41E+2	<1.26E+1
Sr-89	3.82E-6	<1.10E-5	1.96E-5	<9.84E-8
Sr-90	1.31E-5	<9.18E-6	8.90E-7	<7.33E-6
Kr-85	<1.32E+4	<2.41E+4	<1.55E+4	<1.36E+2
Kr-85m	<3.25E+1	<7.91E+1	3.87E+3	<3.44E+2
Kr-87	<8.17E+1	<2.02E+2	<2.09E+2	<4.33E+1
Kr-88	<1.03E+2	<2.73E+2	2.70E+3	3.75E+2
I-131	<7.34E-3	<8.15E-3	5.70E-3	3.47E-3
I-133	<5.00E-3	<1.02E-2	5.14E-3	<2.71E-3
I-135	<1.43E-2	<2.52E-2	<7.56E-3	<1.04E-3
Xe-133	<7.13E+1	<2.38E+2	2.73E+4	2.16E+3
Xe-135	<3.59E+1	<9.02E+1	<1.94E+2	<1.26E+1
Xe-135m	<1.29E+2	<3.63E+2	<4.11E+3	<1.62E+2
Xe-138	<6.10E+2	<9.96E+2	<2.28E+4	<9.27E+2
Cs-134	<9.44E-4	<2.41E-4	<2.92E-5	<1.46E-5
Cs-137	<9.64E-4	<2.59E-4	<3.27E-5	<1.64E-5
Ba-140	<3.35E-3	<9.44E-4	<1.34E-4	<5.68E-5
Zr-95	<2.37E-3	<5.40E-4	<6.58E-5	<3.23E-5
Nb-95	<9.20E-4	<2.57E-4	<2.80E-5	<1.61E-5
Co-58	<9.28E-4	<2.49E-4	<2.89E-5	<1.51E-5
Mn-54	<6.44E-4	<2.41E-4	<3.00E-5	<1.43E-5
Fe-59	<1.89E-3	<5.75E-4	<7.20E-5	<3.51E-5
Co-60	<2.26E-3	<7.30E-4	<9.16E-5	<3.44E-5

TABLE 2

BFNP LIQUID EFFLUENTS RELEASES

Nuclide	Activity (Ci) First Quarter	Second Quarter
H-3	6.6E-0	4.0E-0
Na-24	<3.2E-2	<1.5E-2
Cr-51	<5.1E-2	<1.8E-2
Mn-54	<7.9E-3	<1.5E-3
Mn-56	<5.1E-4	<2.4E-4
Fe-59	<4.5E-3	<1.9E-3
Co-58	<1.1E-2	<2.6E-3
Co-60	<1.2E-2	<6.1E-3
Zn-65	<1.3E-2	<5.6E-3
Sr-89	<8.2E-5	<9.8E-5
Sr-90	<1.1E-4	<1.5E-4
Zr-95	<4.1E-3	<2.1E-3
Nb-95	<4.1E-3	<2.1E-3
Mo-99	<2.6E-3	<1.5E-3
Tc-99m	<2.6E-3	<1.5E-3
I-131	<3.6E-2	<3.5E-2
I-133	<3.5E-3	<3.4E-3
I-135	<2.5E-3	<0.0E-0
Xe-133	<2.2E-2	<1.1E-2
Cs-134	<2.5E-3	<1.7E-3
Cs-136	<3.7E-3	<1.4E-3
Cs-137	<6.7E-3	<4.3E-3
Ba-140	<7.9E-4	<4.0E-4
La-140	<7.9E-4	<4.0E-4
Ce-141	<2.5E-4	<5.9E-4
Totals	<6.8E-0	<4.1E-0

TABLE 3

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA

JOINT FREQUENCY DISTRIBUTION IN PERCENT

GROUND-LEVEL RELEASES - FIRST QUARTER, 1977

STABILITY CLASS A

	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED									
SECTOR	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.050	0.100	0.100	0.0	0.0	0.251
NNE	0.0	0.0	0.0	0.0	0.161	0.261	0.050	0.0	0.0	0.472
NE	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.050
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.100	0.161	0.161	0.0	0.0	0.0	0.0	0.421
SE	0.0	0.0	0.050	0.582	0.311	0.100	0.0	0.0	0.0	1.043
SSE	0.0	0.0	0.100	0.421	0.161	0.050	0.0	0.0	0.0	0.732
S	0.0	0.0	0.0	0.472	0.161	0.050	0.0	0.0	0.0	0.682
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.050
WSW	0.0	0.0	0.0	0.050	0.050	0.161	0.0	0.0	0.0	0.261
W	0.0	0.0	0.0	0.0	0.0	0.100	0.050	0.0	0.0	0.151
WNW	0.0	0.0	0.0	0.050	0.0	0.0	0.100	0.0	0.0	0.151
NW	0.0	0.0	0.0	0.0	0.050	0.211	0.311	0.0	0.0	0.572
NNW	0.0	0.0	0.0	0.050	0.0	0.371	0.421	0.211	0.0	1.054
TOTALS	0.0	0.0	0.251	1.886	1.104	1.405	1.033	0.211	0.0	5.890

STABILITY CLASS B

	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED									
SECTOR	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.050	0.161	0.311	0.050	0.0	0.0	0.572
NNE	0.0	0.0	0.0	0.0	0.050	0.211	0.0	0.0	0.0	0.261
NE	0.0	0.0	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.100
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.100
SE	0.0	0.050	0.100	0.161	0.0	0.050	0.0	0.0	0.0	0.361
SSE	0.0	0.0	0.050	0.472	0.050	0.050	0.0	0.0	0.0	0.622
S	0.0	0.0	0.100	0.050	0.050	0.0	0.0	0.0	0.0	0.201
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.050
WSW	0.0	0.0	0.0	0.050	0.050	0.100	0.050	0.0	0.0	0.251
W	0.0	0.0	0.0	0.050	0.050	0.161	0.0	0.0	0.0	0.261
WNW	0.0	0.0	0.0	0.050	0.050	0.211	0.161	0.050	0.0	0.522
NW	0.0	0.0	0.0	0.0	0.050	0.261	0.211	0.050	0.0	0.572
NNW	0.0	0.0	0.0	0.0	0.0	0.161	0.211	0.0	0.0	0.371
TOTALS	0.0	0.050	0.251	0.983	0.662	1.515	0.682	0.100	0.0	4.244

TABLE 3 (Continued)

STABILITY CLASS C

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.161	0.161	0.161	0.0	0.0	0.0	0.482
NNE	0.0	0.0	0.0	0.161	0.050	0.0	0.0	0.0	0.0	0.211
NE	0.0	0.0	0.0	0.0	0.100	0.0	0.0	0.0	0.0	0.100
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.100	0.0	0.0	0.0	0.0	0.0	0.100
ESE	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
SE	0.0	0.050	0.161	0.161	0.0	0.050	0.0	0.0	0.0	0.421
SSE	0.0	0.0	0.211	0.211	0.050	0.0	0.0	0.0	0.0	0.472
S	0.0	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.0	0.100
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.050
WSW	0.0	0.0	0.0	0.0	0.050	0.161	0.050	0.0	0.0	0.261
W	0.0	0.0	0.0	0.0	0.100	0.371	0.311	0.161	0.0	0.943
WNW	0.0	0.0	0.0	0.311	0.100	0.682	0.371	0.211	0.0	1.676
NW	0.0	0.0	0.0	0.100	0.211	0.261	0.161	0.0	0.0	0.732
NNW	0.0	0.0	0.050	0.0	0.0	0.211	0.261	0.0	0.0	0.522
TOTALS	0.0	0.050	0.522	1.254	0.873	1.896	1.154	0.371	0.0	6.120

STABILITY CLASS D

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.311	0.311	0.682	0.783	0.311	0.0	0.0	2.398
NNE	0.0	0.0	0.100	0.472	0.522	1.264	0.0	0.0	0.0	2.358
NE	0.0	0.0	0.261	0.211	0.211	0.100	0.0	0.0	0.0	0.783
ENE	0.0	0.0	0.161	0.0	0.0	0.0	0.0	0.0	0.0	0.161
E	0.0	0.0	0.100	0.100	0.050	0.050	0.0	0.0	0.0	0.301
ESE	0.0	0.0	0.311	0.211	0.311	0.050	0.0	0.0	0.0	0.883
SE	0.0	0.0	0.943	0.311	0.100	0.311	0.0	0.0	0.0	1.666
SSE	0.0	0.0	0.682	0.371	0.421	0.0	0.0	0.0	0.0	1.475
S	0.0	0.0	0.311	0.472	0.161	0.0	0.0	0.0	0.0	0.943
SSW	0.0	0.0	0.100	0.161	0.050	0.0	0.0	0.0	0.0	0.311
SW	0.0	0.0	0.0	0.100	0.100	0.050	0.0	0.0	0.0	0.251
WSW	0.0	0.0	0.100	0.582	0.100	0.371	0.211	0.0	0.0	1.365
W	0.0	0.0	0.261	0.311	1.204	1.415	0.421	0.050	0.0	3.662
WNW	0.0	0.0	0.211	0.522	0.582	2.779	1.054	0.211	0.050	5.408
NW	0.0	0.0	0.0	0.472	0.632	1.625	1.575	0.371	0.050	4.726
NNW	0.0	0.0	0.261	0.371	0.732	2.358	0.943	0.050	0.0	4.716
TOTALS	0.0	0.0	4.114	4.977	5.859	11.157	4.515	0.682	0.100	31.404

TABLE 3 (Continued)

STABILITY CLASS E

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.050	0.472	0.582	0.421	0.472	0.100	0.0	0.0	2.097
NNE	0.0	0.0	0.732	0.472	0.783	0.371	0.0	0.0	0.0	2.358
NE	0.0	0.0	0.421	0.582	0.472	0.261	0.0	0.0	0.0	1.736
ENE	0.0	0.050	0.421	0.161	0.100	0.0	0.0	0.0	0.0	0.732
E	0.0	0.0	0.161	0.522	0.050	0.0	0.0	0.0	0.0	0.732
ESE	0.0	0.050	0.582	0.993	0.783	0.522	0.0	0.0	0.0	2.930
SE	0.0	0.0	0.993	0.682	1.054	1.314	0.161	0.0	0.0	4.204
SSE	0.0	0.0	1.054	0.522	0.632	0.472	0.100	0.0	0.0	2.779
S	0.0	0.0	0.261	1.204	0.522	0.261	0.0	0.0	0.0	2.247
SSW	0.0	0.0	0.100	0.050	0.050	0.0	0.0	0.0	0.0	0.201
SW	0.0	0.0	0.050	0.0	0.100	0.100	0.0	0.0	0.0	0.251
WSW	0.0	0.0	0.311	0.682	0.261	0.522	0.0	0.0	0.0	1.776
W	0.0	0.0	0.050	1.204	0.893	0.261	0.0	0.0	0.0	2.408
WNW	0.0	0.0	0.161	0.100	0.211	0.421	0.050	0.0	0.0	0.943
NW	0.0	0.0	0.161	0.582	0.261	0.632	0.261	0.0	0.0	1.896
NNW	0.0	0.0	0.371	0.632	0.682	1.415	0.050	0.0	0.0	3.150
TOTALS	0.0	0.151	6.301	8.970	7.274	7.023	0.722	0.0	0.0	30.441

STABILITY CLASS F

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.161	0.582	0.211	0.0	0.0	0.0	0.0	0.953
NNE	0.0	0.0	0.371	0.522	0.0	0.050	0.0	0.0	0.0	0.943
NE	0.0	0.0	0.050	0.161	0.161	0.0	0.0	0.0	0.0	0.371
ENE	0.0	0.0	0.161	0.100	0.0	0.0	0.0	0.0	0.0	0.261
E	0.0	0.050	0.472	0.161	0.0	0.0	0.0	0.0	0.0	0.682
ESE	0.0	0.0	0.582	0.211	0.0	0.0	0.0	0.0	0.0	0.793
SE	0.0	0.050	1.475	0.421	0.100	0.421	0.050	0.0	0.0	2.518
SSE	0.0	0.0	0.893	0.843	0.632	0.522	0.0	0.0	0.0	2.890
S	0.0	0.0	0.522	0.211	0.371	0.522	0.0	0.0	0.0	1.625
SSW	0.0	0.050	0.161	0.0	0.0	0.0	0.0	0.0	0.0	0.211
SW	0.0	0.0	0.211	0.050	0.0	0.0	0.0	0.0	0.0	0.261
WSW	0.0	0.0	0.161	0.050	0.0	0.0	0.0	0.0	0.0	0.211
W	0.0	0.0	0.211	0.050	0.0	0.0	0.0	0.0	0.0	0.261
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.100	0.100	0.050	0.0	0.0	0.0	0.0	0.251
NNW	0.0	0.0	0.161	0.472	0.421	0.0	0.0	0.0	0.0	1.054
TOTALS	0.0	0.151	5.689	3.933	1.946	1.515	0.050	0.0	0.0	13.284

TABLE 3 (Continued)

STABILITY CLASS G

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.522	0.261	0.0	0.0	0.0	0.0	0.0	0.783
NNE	0.0	0.0	0.311	0.211	0.100	0.0	0.0	0.0	0.0	0.622
NE	0.0	0.100	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.151
ENE	0.0	0.050	0.211	0.0	0.0	0.0	0.0	0.0	0.0	0.261
E	0.0	0.0	0.582	0.050	0.0	0.0	0.0	0.0	0.0	0.632
ESE	0.0	0.0	0.421	0.0	0.0	0.0	0.0	0.0	0.0	0.421
SE	0.0	0.100	1.264	0.161	0.050	0.0	0.0	0.0	0.0	1.575
SSE	0.0	0.100	1.365	0.783	0.211	0.0	0.0	0.0	0.0	2.458
S	0.0	0.050	0.311	0.261	0.161	0.0	0.0	0.0	0.0	0.783
SSW	0.0	0.211	0.161	0.0	0.0	0.0	0.0	0.0	0.0	0.371
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
W	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.100
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.211	0.100	0.100	0.0	0.0	0.0	0.0	0.411
TOTALS	0.0	0.662	5.508	1.826	0.622	0.0	0.0	0.0	0.0	8.619

TABLE 4

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA

JOINT FREQUENCY DISTRIBUTION IN PERCENT

GROUND-LEVEL RELEASES - SECOND QUARTER, 1977

STABILITY CLASS A

WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED

SECTOR	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.190	0.419	0.090	0.0	0.0	0.698
NNE	0.0	0.0	0.0	0.0	0.190	0.140	0.050	0.0	0.0	0.379
NE	0.0	0.0	0.0	0.0	0.229	0.140	0.0	0.0	0.0	0.369
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.050	0.140	0.0	0.0	0.0	0.0	0.190
SE	0.0	0.0	0.0	1.027	0.190	0.0	0.0	0.0	0.0	1.217
SSE	0.0	0.0	0.0	0.509	0.050	0.0	0.0	0.0	0.0	0.559
S	0.0	0.0	0.0	0.279	0.0	0.0	0.0	0.0	0.0	0.279
SSW	0.0	0.0	0.0	0.140	0.0	0.0	0.0	0.0	0.0	0.140
SW	0.0	0.0	0.0	0.190	0.0	0.0	0.0	0.0	0.0	0.190
WSW	0.0	0.0	0.0	0.190	0.0	0.050	0.0	0.0	0.0	0.239
W	0.0	0.0	0.0	0.050	0.140	0.279	0.0	0.0	0.0	0.469
WNW	0.0	0.0	0.0	0.0	0.0	0.050	0.190	0.0	0.0	0.239
NW	0.0	0.0	0.0	0.0	0.050	0.279	0.229	0.0	0.0	0.559
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	2.434	1.177	1.356	0.559	0.0	0.0	5.526

STABILITY CLASS B

WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED

SECTOR	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.050	0.190	0.050	0.0	0.0	0.0	0.289
NNE	0.0	0.0	0.0	0.050	0.090	0.050	0.0	0.0	0.0	0.190
NE	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.050
ENE	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.050
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.050	0.140	0.0	0.0	0.0	0.0	0.190
SE	0.0	0.0	0.0	0.469	0.090	0.0	0.0	0.0	0.0	0.559
SSE	0.0	0.0	0.050	0.140	0.050	0.0	0.0	0.0	0.0	0.239
S	0.0	0.0	0.050	0.329	0.0	0.0	0.0	0.0	0.0	0.379
SSW	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
SW	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.050
WSW	0.0	0.0	0.0	0.190	0.419	0.190	0.0	0.0	0.0	0.798
W	0.0	0.0	0.0	0.0	0.190	0.369	0.0	0.0	0.0	0.559
WNW	0.0	0.0	0.0	0.050	0.050	0.229	0.140	0.090	0.0	0.559
NW	0.0	0.0	0.0	0.0	0.050	0.190	0.190	0.0	0.0	0.429
NNW	0.0	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.050
TOTALS	0.0	0.0	0.150	1.476	1.267	1.127	0.329	0.090	0.0	4.439

TABLE 4 (Continued)

STABILITY CLASS C

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.140	0.190	0.140	0.0	0.0	0.0	0.469
NNE	0.0	0.0	0.0	0.190	0.050	0.050	0.0	0.0	0.0	0.289
NE	0.0	0.0	0.0	0.0	0.050	0.050	0.0	0.0	0.0	0.100
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
ESE	0.0	0.0	0.050	0.090	0.050	0.0	0.0	0.0	0.0	0.190
SE	0.0	0.0	0.090	0.469	0.369	0.0	0.0	0.0	0.0	0.928
SSE	0.0	0.0	0.419	0.229	0.0	0.0	0.0	0.0	0.0	0.648
S	0.0	0.0	0.229	0.509	0.0	0.0	0.0	0.0	0.0	0.738
SSW	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.050
SW	0.0	0.0	0.0	0.329	0.0	0.0	0.0	0.0	0.0	0.329
WSW	0.0	0.0	0.050	0.838	0.419	0.190	0.0	0.0	0.0	1.496
W	0.0	0.0	0.0	0.329	0.698	0.369	0.0	0.050	0.0	1.446
WNW	0.0	0.0	0.0	0.140	0.329	0.748	0.229	0.140	0.0	1.586
NW	0.0	0.0	0.0	0.0	0.140	0.608	0.190	0.0	0.0	0.938
NNW	0.0	0.0	0.0	0.050	0.0	0.140	0.0	0.0	0.0	0.190
TOTALS	0.0	0.0	0.888	3.361	2.294	2.294	0.419	0.190	0.0	9.446

STABILITY CLASS D

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.329	0.279	0.140	0.369	0.0	0.0	0.050	1.167
NNE	0.0	0.0	0.190	0.329	0.090	0.329	0.0	0.0	0.0	0.938
NE	0.0	0.0	0.050	0.329	0.050	0.140	0.0	0.0	0.0	0.569
ENE	0.0	0.0	0.229	0.229	0.050	0.050	0.050	0.0	0.0	0.608
E	0.0	0.0	0.190	0.229	0.0	0.0	0.0	0.0	0.0	0.419
ESE	0.0	0.0	0.369	0.329	0.229	0.050	0.0	0.0	0.0	0.977
SE	0.0	0.0	1.067	0.648	0.559	0.0	0.0	0.0	0.0	2.274
SSE	0.0	0.0	1.396	0.888	0.190	0.0	0.0	0.0	0.0	2.474
S	0.0	0.050	1.446	0.608	0.090	0.0	0.0	0.0	0.0	2.194
SSW	0.0	0.0	0.329	0.140	0.0	0.0	0.0	0.0	0.0	0.469
SW	0.0	0.0	0.369	0.279	0.0	0.0	0.0	0.0	0.0	0.648
WSW	0.0	0.0	0.888	1.027	0.190	0.190	0.0	0.0	0.0	2.294
W	0.0	0.0	0.469	1.396	0.788	0.469	0.050	0.090	0.0	3.262
WNW	0.0	0.0	0.0	0.279	0.648	1.347	0.329	0.140	0.0	2.743
NW	0.0	0.0	0.050	0.329	0.648	1.167	0.190	0.050	0.0	2.434
NNW	0.0	0.0	0.190	0.229	0.419	0.369	0.090	0.0	0.0	1.297
TOTALS	0.0	0.050	7.560	7.550	4.089	4.478	0.708	0.279	0.050	24.766

TABLE 4 (Continued)

STABILITY CLASS E

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.090	0.419	0.369	0.369	0.190	0.140	0.0	0.0	1.576
NNE	0.0	0.140	0.648	0.788	0.509	0.229	0.0	0.0	0.0	2.314
NE	0.0	0.140	0.648	0.977	0.279	0.0	0.0	0.0	0.0	2.045
ENE	0.0	0.050	0.977	0.140	0.050	0.0	0.0	0.0	0.0	1.217
E	0.0	0.050	1.396	0.419	0.0	0.0	0.0	0.0	0.0	1.865
ESE	0.0	0.090	1.167	1.347	0.469	0.050	0.0	0.0	0.0	3.122
SE	0.0	0.229	3.122	1.726	0.648	0.419	0.0	0.0	0.0	6.144
SSE	0.0	0.050	1.536	1.207	0.050	0.0	0.0	0.0	0.0	2.843
S	0.0	0.140	1.396	0.469	0.229	0.190	0.0	0.0	0.0	2.424
SSW	0.0	0.050	1.167	0.050	0.050	0.0	0.0	0.0	0.0	1.317
SW	0.0	0.0	0.698	0.190	0.0	0.0	0.0	0.0	0.0	0.888
WSW	0.0	0.0	1.027	0.838	0.190	0.0	0.0	0.0	0.0	2.055
W	0.0	0.0	0.977	2.045	1.067	0.279	0.0	0.0	0.0	4.369
WNW	0.0	0.090	0.279	0.190	0.190	0.190	0.0	0.0	0.0	0.938
NW	0.0	0.0	0.090	0.090	0.190	0.190	0.090	0.0	0.0	0.648
NNW	0.0	0.050	0.329	0.090	0.509	0.190	0.0	0.0	0.0	1.167
TOTALS	0.0	1.167	15.879	10.932	4.798	1.925	0.229	0.0	0.0	34.929

STABILITY CLASS F

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.050	0.279	0.229	0.190	0.0	0.0	0.0	0.0	0.748
NNE	0.0	0.0	0.698	0.509	0.050	0.0	0.0	0.0	0.0	1.257
NE	0.0	0.090	0.469	0.229	0.090	0.050	0.0	0.0	0.0	0.928
ENE	0.0	0.229	0.938	0.090	0.0	0.0	0.0	0.0	0.0	1.157
E	0.0	0.050	1.167	0.190	0.0	0.0	0.0	0.0	0.0	1.406
ESE	0.0	0.050	0.698	0.140	0.0	0.0	0.0	0.0	0.0	0.888
SE	0.0	0.090	0.748	0.190	0.0	0.0	0.0	0.0	0.0	1.027
SSE	0.0	0.050	0.329	0.229	0.0	0.0	0.0	0.0	0.0	0.608
S	0.0	0.050	0.229	0.140	0.140	0.0	0.0	0.0	0.0	0.559
SSW	0.0	0.050	0.190	0.050	0.0	0.0	0.0	0.0	0.0	0.289
SW	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
WSW	0.0	0.0	0.279	0.090	0.0	0.0	0.0	0.0	0.0	0.369
W	0.0	0.0	0.279	0.279	0.0	0.050	0.0	0.0	0.0	0.608
WNW	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.100
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.090	0.190	0.090	0.229	0.050	0.0	0.0	0.0	0.648
TOTALS	0.0	0.848	6.493	2.454	0.698	0.150	0.0	0.0	0.0	10.642

TABLE 4 (Continued)

STABILITY CLASS G

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.020	0.369	1.307	0.140	0.0	0.0	0.0	0.0	0.0	1.835
NNE	0.010	0.190	1.536	0.419	0.0	0.0	0.0	0.0	0.0	2.154
NE	0.010	0.190	0.469	0.090	0.0	0.0	0.0	0.0	0.0	0.758
ENE	0.010	0.190	0.788	0.0	0.0	0.050	0.0	0.0	0.0	1.037
E	0.007	0.140	0.369	0.050	0.0	0.0	0.0	0.0	0.0	0.566
ESE	0.003	0.050	0.090	0.0	0.0	0.0	0.0	0.0	0.0	0.143
SE	0.018	0.329	0.509	0.0	0.0	0.0	0.0	0.0	0.0	0.856
SSE	0.003	0.050	0.509	0.0	0.0	0.0	0.0	0.0	0.0	0.562
S	0.015	0.279	0.090	0.0	0.0	0.0	0.0	0.0	0.0	0.384
SSW	0.005	0.090	0.090	0.0	0.0	0.0	0.0	0.0	0.0	0.185
SW	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
WSW	0.005	0.090	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.145
W	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
WNW	0.003	0.050	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.103
NW	0.010	0.190	0.090	0.0	0.0	0.0	0.0	0.0	0.0	0.289
NNW	0.022	0.419	0.648	0.050	0.0	0.0	0.0	0.0	0.0	1.139
TOTALS	0.141	2.623	6.693	0.748	0.0	0.050	0.0	0.0	0.0	10.254

TABLE 5

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA

JOINT FREQUENCY DISTRIBUTION IN PERCENT

ELEVATED RELEASES - FIRST QUARTER, 1977

STABILITY CLASS A

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED									
	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STABILITY CLASS B

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED									
	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 5 (Continued)

STABILITY CLASS C

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STABILITY CLASS D

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.200	0.250	0.651	1.762	2.523	0.801	0.0	6.188
NNE	0.0	0.0	0.100	0.150	0.701	2.363	2.463	0.100	0.0	5.878
NE	0.0	0.0	0.0	0.150	0.551	1.712	1.312	0.451	0.0	4.175
ENE	0.0	0.0	0.050	0.100	0.200	0.801	0.350	0.250	0.0	1.752
E	0.0	0.0	0.050	0.250	0.300	0.601	0.150	0.0	0.0	1.352
ESE	0.0	0.0	0.0	0.350	0.551	1.011	1.212	0.551	0.350	4.025
SE	0.0	0.0	0.150	0.551	1.362	1.762	1.812	1.362	2.313	9.312
SSE	0.0	0.0	0.0	0.501	0.651	1.913	1.762	1.362	2.523	8.711
S	0.0	0.050	0.300	0.401	0.651	2.113	2.213	1.162	1.212	8.101
SSW	0.0	0.0	0.100	0.451	0.350	1.462	1.963	1.061	0.350	5.737
SW	0.0	0.0	0.050	0.501	0.350	1.362	1.862	0.651	0.551	5.327
WSW	0.0	0.0	0.100	0.401	0.651	0.651	1.913	1.312	0.751	5.778
W	0.0	0.0	0.100	0.300	0.451	2.163	1.963	0.861	0.601	6.438
WNW	0.0	0.0	0.050	0.551	0.350	2.363	3.274	1.412	0.601	8.601
NW	0.0	0.0	0.150	0.350	0.551	2.263	3.374	1.712	0.551	8.952
NNW	0.0	0.0	0.050	0.200	0.300	2.523	4.336	1.712	0.551	9.673
TOTALS	0.0	0.050	1.452	5.457	8.621	26.825	32.482	14.759	10.354	100.001

TABLE 5 (Continued)

STABILITY CLASS E

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STABILITY CLASS F

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 5 (Continued)

STABILITY CLASS G

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GROUND-LEVEL RELEASES = 0.0 PERCENT

ELEVATED RELEASES = 100.0 PERCENT

TABLE 6

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA

JOINT FREQUENCY DISTRIBUTION IN PERCENT

ELEVATED RELEASES - SECOND QUARTER, 1977

STABILITY CLASS A

WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED

SECTOR	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STABILITY CLASS B

WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED

SECTOR	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 6 (Continued)

STABILITY CLASS C

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STABILITY CLASS D

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.280	0.190	0.560	1.160	1.020	0.420	0.140	3.769
NNE	0.0	0.0	0.230	0.280	0.320	1.859	1.899	0.320	0.0	4.908
NE	0.0	0.0	0.280	0.460	0.560	2.039	1.299	0.880	0.050	5.568
ENE	0.0	0.0	0.280	0.280	0.190	0.880	0.700	0.320	0.050	2.699
E	0.0	0.0	0.190	1.020	0.510	1.110	0.280	0.0	0.0	3.109
ESE	0.0	0.0	0.460	0.740	1.250	2.269	1.020	0.050	0.0	5.788
SE	0.0	0.0	0.420	1.479	1.719	3.619	2.599	0.650	0.190	10.676
SSE	0.0	0.0	0.460	1.619	1.110	1.669	1.859	1.349	0.190	8.257
S	0.0	0.090	0.790	0.830	1.210	1.669	1.349	0.830	0.230	6.997
SSW	0.0	0.0	0.560	1.210	0.880	1.899	1.250	0.560	0.090	6.447
SW	0.0	0.0	0.740	0.700	1.160	2.459	2.599	0.510	0.0	8.167
WSW	0.0	0.0	0.190	1.020	1.070	1.669	2.549	0.790	0.0	7.287
W	0.0	0.050	0.230	1.110	1.389	3.659	2.179	0.420	0.560	9.596
WNW	0.0	0.0	0.190	0.650	1.250	3.799	1.389	0.600	0.140	8.017
NW	0.0	0.0	0.140	0.600	0.650	2.179	1.949	0.140	0.050	5.708
NNW	0.0	0.0	0.230	0.320	0.280	0.790	1.299	0.090	0.0	3.009
TOTALS	0.0	0.140	5.668	12.505	14.104	32.727	25.240	7.927	1.689	100.000

TABLE 6 (Continued)

STABILITY CLASS E

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

STABILITY CLASS F

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 6 (Continued)

STABILITY CLASS G

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED 0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GROUND-LEVEL RELEASES = 0.0 PERCENT

ELEVATED RELEASES = 100.0 PERCENT

TABLE 7

BFNP DOSES TO INDIVIDUALS FROM FIRST QUARTER, 1977 RELEASES

External Exposure

Pathway	Guideline*	Point	Doses (mrem)
γ air dose	10	Max. Exp.[1]	6.54E-1
β air dose	20	Max. Exp.[1]	5.17E+0
Total body	5	Residence[2]	4.03E-1
Skin	15	Residence[2]	1.81E+0

Internal Exposure (Thyroid-maximum exposed organ)

Radioiodines & Particulates	15	Real Pathway[3,4]	2.59E-1

Ingestion

	Infant	Child	Adult
Milk[3]	1.47E-1	6.08E-2	2.05E-2
Meat[4]	0.00E 0	3.46E-3	3.44E-3
Veg.[3]	0.00E 0	1.09E-2	7.39E-3
Inhalation[3]	7.11E-4	1.16E-3	6.44E-4
External[3]	1.11E-1	1.11E-1	1.11E-1
Total	2.59E-1	1.88E-1	1.43E-1

* Guidelines as defined by Appendix I to 10 CFR 50.

1. Maximum exposure point is at 1,620 meters in the NNW sector.
2. Residence is at 1,860 meters in the NNW sector.
3. Doses calculated at the residence on the farm which has the limiting milk cow, 5,940 meters, N sector.
4. Doses calculated at the site boundary.

TABLE 8

BFNP DOSES TO INDIVIDUALS FROM SECOND QUARTER, 1977 RELEASES

External Exposure

Pathway	Guideline*	Point	Doses (mrem)
γ air dose	10	Max. Exp.[1]	8.46E-1
β air dose	20	Max. Exp.[1]	6.42E+0
Total body	5	Residence[2]	4.76E-1
Skin	15	Residence[2]	2.38E+0

Internal Exposure (Thyroid-maximum exposed organ)

Radioiodines & Particulates	15	Real Pathway[3,4]	1.86E-1

Ingestion	Infant	Child	Adult
$Milk_4^3$	1.36E-1	5.63E-2	1.90E-2
$Meat_3$	0.00E 0	2.63E-3	2.63E-3
Veg.[3]	0.00E 0	1.01E-2	6.88E-3
Inhalation[3]	1.19E-3	1.94E-3	1.12E-3
External[3]	4.86E-2	4.86E-2	4.86E-2
Total	1.86E-1	1.20E-1	7.82E-2

* Guidelines as defined by Appendix I to 10 CFR 50.

1. Maximum exposure point is at 1,620 meters in the NNW sector.
2. Residence is at 1,740 meters in the N sector.
3. Doses calculated at the residence on the farm which has the limiting milk cow, 5,940 meters, N sector.
4. Doses calculated at the site boundary.

TABLE 9

BFNP POPULATION DOSES

FIRST QUARTER, 1977

	THYROID					TOTAL BODY				
	INFANT	CHILD	TEEN	ADULT	TOTALS	INFANT	CHILD	TEEN	ADULT	TOTALS
SUBMERSION	3.46E-02	2.16E-01	1.37E-01	6.36E-01	1.02E 00	3.46E-02	2.16E-01	1.37E-01	6.36E-01	1.02E 00
GROUND	1.08E-02	6.70E-02	4.27E-02	1.98E-01	3.18E-01	1.08E-02	6.70E-02	4.27E-02	1.98E-01	3.18E-01
INHALATION	6.65E-04	6.79E-03	2.58E-03	1.12E-02	2.12E-02	1.58E-05	2.57E-04	1.30E-04	2.15E-02	2.19E-02
COW MILK	6.87E-02	1.78E-01	4.72E-02	1.88E-01	4.81E-01	2.55E-04	1.11E-03	4.86E-04	2.73E-03	4.58E-03
BEEF INGESTION	0.0	4.23E-03	1.80E-03	1.17E-02	1.77E-02	0.0	1.34E-04	8.26E-05	8.13E-04	1.03E-03
VEG INGESTION	0.0	1.18E-02	5.10E-03	3.10E-02	4.79E-02	0.0	1.63E-04	1.12E-04	9.23E-04	1.20E-03
TOTAL MAN-REM	1.15E-01	4.83E-01	2.36E-01	1.07E 00	1.91E 00	4.56E-02	2.84E-01	1.81E-01	8.59E-01	1.37E 00

SECOND QUARTER, 1977

	THYROID					TOTAL BODY				
	INFANT	CHILD	TEEN	ADULT	TOTALS	INFANT	CHILD	TEEN	ADULT	TOTALS
SUBMERSION	1.36E-02	8.45E-02	5.38E-02	2.49E-01	4.01E-01	1.36E-02	8.45E-02	5.38E-02	2.49E-01	4.01E-01
GROUND	7.77E-04	4.84E-03	3.08E-03	1.43E-02	2.30E-02	7.77E-04	4.84E-03	3.08E-03	1.43E-02	2.30E-02
INHALATION	1.14E-03	1.17E-02	4.41E-03	1.92E-02	3.64E-02	3.37E-05	5.42E-04	2.62E-04	5.30E-03	6.13E-03
COW MILK	6.23E-02	1.61E-01	4.28E-02	1.71E-01	4.37E-01	2.58E-04	1.01E-03	3.43E-04	1.81E-03	3.43E-03
BEEF INGESTION	0.0	3.81E-03	1.64E-03	1.07E-02	1.62E-02	0.0	1.77E-04	9.57E-05	8.98E-04	1.17E-03
VEG INGESTION	0.0	1.05E-02	4.51E-03	2.75E-02	4.25E-02	0.0	1.72E-04	9.74E-05	7.71E-04	1.04E-03
TOTAL MAN-REM	7.78E-02	2.77E-01	1.10E-01	4.92E-01	9.56E-01	1.46E-02	9.12E-02	5.77E-02	2.72E-01	4.36E-01

TABLE 10

LIQUID EFFLUENT DOSES - FIRST QUARTER 1977

	Bone	G. I. Tract	Thyroid	Total Body	Skin	
I. Water Ingestion						
A. Maximum Individual Dose Champion Paper Company	<1.2E-4	<2.6E-4	<2.7E-3	<8.4E-5	<8.4E-5	mrem
B. Total Population Dose Tennessee River	<3.8E-3	<6.0E-3	<3.2E-2	<2.6E-3	<2.6E-3	man-rem
II. Fish Consumption						
A. Maximum Individual Dose Wheeler Lake Below Browns Ferry	<7.9E-4	<3.3E-3	<2.5E-3	<1.0E-3	<1.0E-3	
B. Total Population Dose Tennessee River	<4.6E-2	<1.9E-1	<1.2E-1	<5.8E-2	<5.8E-2	man-rem

	In-Water		Above-Water		Shoreline		
	Total Body	Skin	Total Body	Skin	Total Body	Skin	
III. Recreation							
A. Maximum Individual Dose Wheeler Lake below Browns Ferry	<1.2E-5	<2.6E-5	<1.2E-5	<2.5E-5	<7.8E-4	<9.1E-4	mrem
B. Total Population Dose Tennessee River	<1.6E-5	<3.4E-5	<4.1E-5	<8.7E-5	<6.1E-3	<7.2E-3	man-rem

	Bone	G.I. Tract	Thyroid	Total Body	Skin	
IV. Total Tennessee River Population Dose	<5.6E-2	<2.0E-1	<1.6E-1	<6.7E-2	<6.9E-2	man-rem

TABLE 11

LIQUID EFFLUENT DOSES - SECOND QUARTER 1977

	Bone	G. I. Tract	Thyroid	Total Body	Skin
I. Water Ingestion					
A. Maximum Individual Dose Champion Paper Company	<2.0E-4	<2.7E-4	<4.3E-3	<1.0E-4	<1.0E-4 mrem
B. Total Population Dose Tennessee River	<4.4E-3	<3.7E-3	<2.9E-2	<2.1E-3	<2.1E-3 man-rem
II. Fish Consumption					
A. Maximum Individual Dose Wheeler Lake Below Browns Ferry	<2.6E-3	<8.7E-3	<1.1E-2	<3.2E-3	<3.2E-3 mrem
B. Total Population Dose Tennessee River	<1.3E-1	<4.2E-1	<4.0E-1	<1.5E-1	<1.5E-1 man-rem

	In-Water		Above-Water		Shoreline	
	Total Body	Skin	Total Body	Skin	Total Body	Skin
III. Recreation						
A. Maximum Individual Dose Wheeler Lake below Browns Ferry	<1.9E-5	<4.2E-5	<1.9E-5	<4.2E-5	<1.5E-3	<1.7E-3 mrem
B. Total Population Dose Tennessee River	<2.2E-5	<4.6E-5	<5.5E-5	<1.2E-4	<9.5E-3	<1.1E-2 man-rem

	Bone	G.I. Tract	Thyroid	Total Body	Skin
IV. Total Tennessee River Population Dose	<1.4E-1	<4.3E-1	<4.4E-1	<1.6E-1	<1.6E-1 man-rem