

RADIOLOGICAL IMPACT ASSESSMENT

BROWNS FERRY NUCLEAR PLANT

JANUARY-JUNE 1978

Docket # **EO-259**  
Control # **782430092**  
Date \_\_\_\_\_ of Document  
REGULATORY DOCKET FILE  
**Recd w/lt dtd 8-24-78**  
**ENVIRO**

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### Introduction

Potential doses to individuals and populations have been calculated for the time period January 1 through June 30, 1978. The calculations have been made using the measured releases listed in Tables 1-3 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, split-level, and stack releases were calculated. The ground-level JFD was derived from wind speeds and directions measured 10 meters above ground-level and from the vertical temperature gradient between 10 and 45 meters. The ground-level portion of the split-level JFD was based on wind speeds and directions measured with a sensor located 10 meters above ground-level and from the vertical temperature gradient between 10 and 45 meters. The elevated portion of the split-level JFD was based on wind speed and direction measurements at the 46-meter level and the vertical temperature gradient between 45 and 90 meters. The JFD's for elevated releases were based on wind directions and wind speeds measured at 93 meters. Stability class D was assumed to persist at the effluent release level of 183 meters for the entire period. Examination of

rawinsonde data from TVA's Colbert Steam Plant (40 miles west of BFNP) indicates that for  $\Delta T$ -based stabilities at levels above 183 meters, the frequencies of stability classes D and E total more than 95 percent 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 4 and 5 for ground-level releases, Tables 6 and 7 for split-level releases, and in Tables 8 and 9 for elevated releases.

#### Gaseous Effluents

Ground-level and elevated dispersion models were applied to turbine building and stack releases respectively. Releases from the reactor building and radwaste building were treated as split-level releases, i.e., partly elevated and partly ground-level. The split-level dispersion approach was implemented using a model that requires for each effluent vent two complete average-annual joint-frequency distributions (JFD's), one for the elevated releases and one for the ground-level releases. 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 10 and 11 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 12.

#### Liquid Effluents

Doses from liquid effluents were calculated using measured hydraulic data. The average river flows at the plant site were 69,100 cfs for the first quarter and 31,500 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 at 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 13 and 14.

#### 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.

#### 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 0.18 and 1.02 mrad, respectively. During the second quarter, the gamma and beta air doses were 1.66 and 10.1 mrad, respectively. These quarterly doses are well below the annual air dose guidelines (as specified in Appendix I to 10CFR50) 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 0.38 and 0.10 mrem. During the second quarter, the skin and total body were 3.79 and 0.98 mrem, respectively. These compare with annual dose guidelines 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 0.06 and 0.15 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 individual doses to the total body and the maximum exposed organ, i.e.,

G.I. tract, were calculated to be 0.01 and 0.04 mrem, respectively. In the second quarter, the maximum doses to the total body and G.I. tract were 0.03 and 0.07 mrem, respectively. These compare with annual dose guidelines as specified in Appendix I to 10CFR50 of 9 and 30 mrem to the total body and maximum exposed organ (G.I. tract), respectively, for three units.

Population doses from gaseous effluents during the first quarter were estimated to be 0.12 man-rem to the total body and 0.43 man-rem to the thyroid. For the second quarter, population doses were 0.45 man-rem to the total body and 1.28 man-rem to the thyroid.

From liquid releases during the first quarter, the total population along the Tennessee River was estimated to receive 0.33 man-rem to the total body and 1.6 man-rem to the maximum exposed organ (G.I. tract). For the second quarter, the Tennessee River population was estimated to receive 0.8 man-rem to the total body and 3.7 man-rem to the maximum exposed organ (G.I. tract).

In summary, all doses calculated were below the guidelines of Appendix I to 10CFR50 and below the limits specified in the Browns Ferry Nuclear Plant technical specifications for plant operation.

TABLE 1

BFNP Gaseous Effluent ReleasesFirst Quarter 1978

<u>Radionuclide</u>	<u>Reactor Building (Ci)</u>	<u>Radwaste Building (Ci)</u>	<u>Turbine Building (Ci)</u>	<u>Stack (Ci)</u>
H-3	6.17E+0	1.80E-2	-	7.15E-2
Ar-41	<5.85E+1	<1.83E+0	-	<4.08E+0
Sr-89	1.19E-5	1.16E-6	3.82E-8	6.38E-6
Sr-90	2.45E-5	2.28E-7	3.17E-7	3.40E-7
Kr-85	<8.55E+3	<3.46E+2	-	<1.44E+0
Kr-85m	<2.64E+1	<2.82E+0	-	<1.48E+1
Kr-87	<6.74E+1	<3.06E+0	-	<5.93E+0
Dr-88	<8.78E+1	<3.69E+0	-	<4.50E+1
I-131	<2.44E-3	<9.08E-5	<5.13E-6	<1.55E-2
I-133	<1.99E-3	<1.15E-4	-	<5.07E-3
I-135	<1.23E-2	<5.24E-4	-	<5.38E-4
Xe-133	<5.43E+1	<2.59E+0	-	<4.13E+2
Xe-135	<2.56E+1	<1.17E+0	-	<2.17E+0
Xe-135m	<1.09E+2	<2.45E+1	-	<7.17E+1
Xe-138	<4.70E+2	<9.92E+1	-	<4.97E+2
Cs-134	<1.41E-4	<5.38E-6	<3.16E-6	<2.89E-5
Cs-137	<1.77E-3	<1.53E-5	<9.73E-6	<4.23E-5
Ba-140	<2.83E-4	<9.85E-6	<3.44E-6	<2.44E-5
La-140	<2.83E-4	<9.85E-6	<3.44E-6	<2.44E-5
Zr-95	<6.34E-4	<1.52E-5	<4.54E-6	<2.78E-5
Nb-95	<6.96E-4	<1.71E-5	<1.90E-6	<1.31E-5
Co-58	<2.52E-4	<7.80E-6	<1.64E-6	<1.31E-5
Mn-54	<5.45E-4	<2.67E-5	<1.92E-6	<1.44E-5
Zn-65	<1.99E-3	<1.13E-4	<4.91E-6	<3.23E-5
Fe-59	<3.21E-4	<1.08E-5	<4.55E-6	<3.25E-5
Co-60	<2.29E-3	<1.12E-4	<5.39E-6	<2.76E-5

TABLE 2

BFNP Gaseous Effluent Releases  
Second Quarter 1978

<u>Radionuclide</u>	<u>Reactor Building (Ci)</u>	<u>Radwaste Building (Ci)</u>	<u>Turbine Building (Ci)</u>	<u>Stack (Ci)</u>
H-3	2.16E+0	6.39E-1	8.58E+0	2.53E-1
Ar-41	<1.38E+2	<4.87E+0	<5.92E+1	<3.80E+0
Sr-89	5.33E-5	2.13E-7	1.94E-4	8.42E-6
Sr-90	4.12E-5	2.28E-7	1.60E-4	1.34E-7
Kr-85	<2.52E+4	<1.18E+3	<1.90E+4	2.87E+0
Kr-85m	<8.08E+1	<4.31E+0	<6.85E+1	5.57E+1
Kr-87	<2.24E+2	<1.15E+1	<1.33E+2	<8.57E+0
Kr-88	<3.09E+2	<2.29E+1	<1.75E+2	<4.90E+1
I-131	7.55E-3	1.36E-4	6.94E-4	3.50E-2
I-133	<5.81E-3	<1.28E-4	<2.28E-3	1.06E-2
I-135	<1.90E-3	<4.15E-4	<1.67E-02	4.93E-3
Xe-133	<1.52E+2	<9.53E+0	<2.10E+2	<4.54E+2
Xe-135	<1.02E+2	9.16E+0	<4.65E+1	<3.92E+0
Xe-135m	<5.24E+2	<6.96E+1	<1.57E+2	<3.65E+1
Xe-138	<1.77E+3	<9.75E+1	<1.04E+3	<2.58E+2
Cs-134	<4.60E-4	<7.62E-6	<1.74E-4	<6.59E-5
Cs-137	1.18E-3	1.77E-5	4.53E-4	4.16E-5
Ba-140	<5.25E-4	<8.20E-6	<1.81E-4	<3.16E-5
La-140	<5.25E-4	<8.20E-6	<1.81E-4	<3.16E-5
Zr-95	<1.78E-3	<1.62E-5	<3.58E-4	<3.55E-5
Nb-95	<2.04E-3	<8.27E-6	<1.76E-4	<2.03E-5
Co-58	<1.13E-3	<7.28E-6	<1.71E-4	<1.63E-5
Mn-54	<1.09E-3	<8.59E-6	<1.68E-4	<1.58E-5
Zn-65	<4.75E-3	<2.70E-5	<4.47E-4	<4.18E-5
Fe-59	<1.05E-3	<1.52E-5	<4.16E-4	<4.10E-5
Co-60	4.68E-3	2.82E-5	2.81E-4	3.05E-5

TABLE 3

BFNP LIQUID EFFLUENTS RELEASES

<u>Nuclide</u>	<u>Activity (μCi)</u>	
	<u>First Quarter</u>	<u>Second Quarter</u>
H-3	9.08E 06	6.19E 06
NA-24	<1.24E 05	<3.29E 04
CR-51	1.18E 05	1.67E 05
MN-54	<1.04E 04	<9.01E 03
MN-56	<8.61E 02	<4.24E 02
FE-59	<4.85E 03	<3.87E 03
CO-58	<8.20E 03	<9.56E 03
CO-60	<5.45E 04	<4.61E 04
ZN-65	<5.46E 04	<9.14E 04
SR-89	<4.57E 02	<7.25E 01
SR-90	<2.28E 02	2.35E 01
ZR-95	<2.29E 04	<2.54E 04
NB-95	<1.79E 04	<1.47E 04
MO-99	<3.78E 03	<2.31E 03
TC-99m	<3.78E 03	<2.31E 03
I-131	<1.68E 04	<1.14E 04
I-133	<8.85E 03	<5.96E 03
XE-133	<2.87E 04	<7.71E 04
XE-135	<2.49E 04	<2.36E 04
CS-134	<4.76E 03	<3.76E 03
CS-136	<4.58E 03	<2.20E 03
CS-137	<1.45E 04	<1.26E 04
BA-140	<1.13E 03	<6.80E 02
LA-140	<1.13E 03	<6.80E 02
CE-141	<2.00E 03	<1.74E 03
Total	9.61E 06	1.06E 07

TABLE 4

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA GROUND-LEVEL JOINT FREQUENCYDISTRIBUTION IN PERCENT - TURBINE BUILDING RELEASESFIRST QUARTER, 1978STABILITY 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	0.140	0.0	0.0	0.0	0.140
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	0.469	0.0	0.0	0.0	0.0	0.0	0.469
SSE	0.0	0.0	0.0	0.140	0.0	0.0	0.0	0.0	0.0	0.140
S	0.0	0.0	0.0	0.050	0.050	0.050	0.0	0.0	0.0	0.150
SSW	0.0	0.0	0.0	0.0	0.090	0.0	0.0	0.0	0.0	0.090
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	0.0	0.0	0.050	0.0	0.0	0.0	0.050
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	0.050	0.050	0.0	0.100
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.050
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	0.709	0.140	0.240	0.100	0.050	0.0	1.238

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	0.0	0.649	0.0	0.0	0.0	0.699
NNE	0.0	0.0	0.0	0.0	0.0	0.369	0.090	0.0	0.0	0.459
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	0.050	0.0	0.0	0.0	0.0	0.050
SE	0.0	0.0	0.050	0.230	0.0	0.0	0.0	0.0	0.0	0.280
SSE	0.0	0.0	0.0	0.190	0.050	0.0	0.0	0.0	0.0	0.240
S	0.0	0.0	0.0	0.329	0.050	0.0	0.0	0.0	0.0	0.379
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.050	0.090	0.0	0.0	0.0	0.140
W	0.0	0.0	0.0	0.0	0.0	0.090	0.0	0.0	0.0	0.090
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.190	0.090	0.0	0.280
NW	0.0	0.0	0.0	0.0	0.050	0.190	0.0	0.0	0.0	0.240
NNW	0.0	0.0	0.0	0.0	0.0	0.190	0.050	0.0	0.0	0.240
TOTALS	0.0	0.0	0.050	0.849	0.250	1.577	0.329	0.090	0.0	3.145

TABLE 4 (CONTINUED)

## STABILITY CLASS C

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	0.040	0.230	0.050	0.0	0.0	0.419
NNE	0.0	0.0	0.0	0.050	0.050	0.329	0.0	0.0	0.0	0.429
NE	0.0	0.0	0.0	0.0	0.050	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.230	0.050	0.0	0.0	0.0	0.0	0.280
SSE	0.0	0.0	0.0	0.230	0.050	0.0	0.0	0.0	0.0	0.280
S	0.0	0.0	0.050	0.140	0.0	0.0	0.0	0.0	0.0	0.190
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	0.050	0.0	0.0	0.0	0.0	0.0	0.050
WSW	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.050
W	0.0	0.0	0.0	0.0	0.050	0.050	0.090	0.0	0.0	0.190
WNW	0.0	0.0	0.0	0.050	0.090	0.090	0.280	0.0	0.0	0.509
NW	0.0	0.0	0.0	0.0	0.0	0.329	0.090	0.0	0.0	0.419
NNW	0.0	0.0	0.0	0.0	0.050	0.419	0.140	0.0	0.0	0.609
TOTALS	0.0	0.0	0.050	0.849	0.529	1.448	0.649	0.0	0.0	3.524

## STABILITY CLASS D

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	0.280	0.699	1.028	2.466	1.308	0.050	0.0	5.830
NNE	0.0	0.0	0.419	0.978	1.168	2.705	0.559	0.0	0.0	5.830
NE	0.0	0.0	0.190	0.469	1.208	1.627	0.0	0.0	0.0	3.494
ENE	0.0	0.0	0.140	0.469	0.329	0.050	0.0	0.0	0.0	0.988
E	0.0	0.0	0.190	0.749	0.190	0.050	0.0	0.0	0.0	1.178
ESE	0.0	0.0	0.0	0.469	0.230	0.0	0.0	0.0	0.0	0.699
SE	0.0	0.050	0.469	0.509	0.469	0.230	0.0	0.0	0.0	1.727
SSE	0.0	0.0	0.280	0.749	0.230	0.0	0.0	0.0	0.0	1.250
S	0.0	0.0	0.369	0.749	0.090	0.280	0.0	0.0	0.0	1.487
SSW	0.0	0.0	0.090	0.140	0.0	0.190	0.0	0.0	0.0	0.419
SW	0.0	0.0	0.190	0.329	0.230	0.0	0.0	0.0	0.0	0.749
WSW	0.0	0.0	0.0	0.140	0.230	0.419	0.280	0.0	0.0	1.068
W	0.0	0.0	0.140	0.140	0.559	1.168	0.469	0.0	0.0	2.476
WNW	0.0	0.0	0.140	0.230	0.559	2.795	2.047	0.190	0.0	5.960
NW	0.0	0.0	0.090	0.419	0.369	3.444	2.606	0.329	0.050	7.308
NNW	0.0	0.0	0.329	0.928	1.168	4.892	2.096	0.509	0.050	9.973
TOTALS	0.0	0.050	3.314	8.166	8.056	20.316	9.364	1.078	0.100	50.445

TABLE 4 (CONTINUED)

## STABILITY CLASS E

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	0.699	0.699	0.609	0.699	0.140	0.0	0.0	2.845
NNE	0.0	0.050	0.699	0.839	0.559	0.749	0.050	0.0	0.0	2.945
NE	0.0	0.0	0.190	0.649	0.649	0.369	0.0	0.0	0.0	1.857
ENE	0.0	0.0	0.419	0.559	0.190	0.050	0.0	0.0	0.0	1.218
E	0.0	0.140	0.419	0.699	0.140	0.050	0.0	0.0	0.0	1.448
ESE	0.0	0.090	0.369	0.789	0.140	0.050	0.0	0.0	0.0	1.438
SE	0.0	0.050	1.398	1.627	0.749	0.509	0.0	0.0	0.0	4.333
SSE	0.0	0.0	1.308	0.609	0.419	0.140	0.0	0.0	0.0	2.476
S	0.0	0.050	0.609	0.369	0.140	0.789	0.0	0.050	0.0	2.007
SSW	0.0	0.050	0.190	0.329	0.190	0.329	0.0	0.0	0.0	1.068
SW	0.0	0.0	0.0	0.090	0.0	0.0	0.0	0.0	0.0	0.090
WSW	0.0	0.050	0.280	0.469	0.090	0.050	0.050	0.0	0.0	0.988
W	0.0	0.0	0.190	0.090	0.140	0.090	0.0	0.0	0.0	0.509
WNW	0.0	0.0	0.090	0.090	0.090	0.050	0.0	0.0	0.0	0.319
NW	0.0	0.0	0.140	0.230	0.090	0.369	0.0	0.0	0.0	0.829
NNW	0.0	0.0	0.369	0.609	0.928	1.118	0.140	0.0	0.0	3.165
TOTALS	0.0	0.479	7.368	8.745	5.121	5.411	0.379	0.050	0.0	27.554

## STABILITY CLASS F

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	0.140	0.419	0.230	0.050	0.0	0.0	0.0	0.839
NNE	0.0	0.0	0.230	0.419	0.140	0.190	0.0	0.0	0.0	0.978
NE	0.0	0.0	0.230	0.090	0.0	0.0	0.0	0.0	0.0	0.319
ENE	0.0	0.0	0.329	0.190	0.050	0.0	0.0	0.0	0.0	0.569
E	0.0	0.0	0.140	0.280	0.190	0.0	0.0	0.0	0.0	0.609
ESE	0.0	0.0	0.230	0.090	0.0	0.0	0.0	0.0	0.0	0.319
SE	0.0	0.0	0.509	0.839	0.140	0.050	0.0	0.0	0.0	1.537
SSE	0.0	0.050	0.329	0.369	0.190	0.140	0.050	0.090	0.0	1.218
S	0.0	0.0	0.230	0.140	0.329	0.280	0.0	0.050	0.0	1.028
SSW	0.0	0.0	0.140	0.050	0.050	0.0	0.0	0.0	0.0	0.240
SW	0.0	0.0	0.140	0.0	0.0	0.0	0.0	0.0	0.0	0.140
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	0.050	0.0	0.0	0.0	0.0	0.0	0.050
WNW	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
NW	0.0	0.0	0.140	0.050	0.0	0.0	0.0	0.0	0.0	0.190
NNW	0.0	0.0	0.280	0.280	0.050	0.050	0.0	0.0	0.0	0.659
TOTALS	0.0	0.050	3.115	3.265	1.368	0.759	0.050	0.140	0.0	8.745

TABLE 4 (CONTINUED)

STABILITY CLASS G										
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	0.140	0.140	0.0	0.0	0.0	0.0	0.0	0.280
NNE	0.0	0.0	0.090	0.090	0.0	0.0	0.0	0.0	0.0	0.180
NE	0.0	0.0	0.090	0.090	0.0	0.0	0.0	0.0	0.0	0.180
ENE	0.0	0.0	0.050	0.090	0.0	0.0	0.0	0.0	0.0	0.140
E	0.0	0.0	0.190	0.369	0.0	0.0	0.0	0.0	0.0	0.559
ESE	0.0	0.050	0.190	0.0	0.0	0.0	0.0	0.0	0.0	0.240
SE	0.0	0.0	0.509	0.090	0.0	0.0	0.0	0.0	0.0	0.599
SSE	0.0	0.0	0.839	0.649	0.140	0.369	0.0	0.0	0.0	1.997
S	0.0	0.090	0.190	0.329	0.329	0.050	0.0	0.0	0.0	0.988
SSW	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.050
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	0.090	0.050	0.0	0.0	0.0	0.0	0.0	0.140
TOTALS	0.0	0.190	2.376	1.897	0.469	0.419	0.0	0.0	0.0	5.351

TABLE 5

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA  
GROUND-LEVEL JOINT FREQUENCY DISTRIBUTION IN PERCENT  
TURBINE BUILDING RELEASES - SECOND QUARTER, 1978

## 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	0.090	0.149	0.0	0.0	0.230
NNE	0.0	0.0	0.0	0.0	0.0	0.090	0.230	0.0	0.0	0.320
NE	0.0	0.0	0.0	0.0	0.0	0.090	0.0	0.0	0.0	0.090
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	0.0	0.0	0.0	0.0	0.0	0.050
SE	0.0	0.0	0.050	0.929	0.090	0.0	0.0	0.0	0.0	1.068
SSE	0.0	0.0	0.0	0.599	0.050	0.0	0.0	0.0	0.0	0.649
S	0.0	0.0	0.0	0.0	0.690	0.0	0.0	0.0	0.0	0.690
SSW	0.0	0.0	0.0	0.050	0.190	0.050	0.0	0.0	0.0	0.290
SW	0.0	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.050
WSW	0.0	0.0	0.0	0.0	0.050	0.050	0.0	0.0	0.0	0.100
W	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.050
WNW	0.0	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.050
NW	0.0	0.0	0.0	0.0	0.0	0.230	0.0	0.0	0.0	0.230
NNW	0.0	0.0	0.0	0.0	0.0	0.090	0.050	0.0	0.0	0.140
TOTALS	0.0	0.0	0.050	1.628	0.519	0.789	0.419	0.0	0.0	3.405

## 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	0.050	0.320	0.050	0.090	0.0	0.559
NNE	0.0	0.0	0.0	0.0	0.090	0.320	0.050	0.0	0.0	0.459
NE	0.0	0.0	0.0	0.090	0.0	0.280	0.090	0.0	0.0	0.459
ENE	0.0	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.0	0.100
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	0.0	0.0	0.0	0.0	0.0	0.050
SE	0.0	0.0	0.090	1.109	0.0	0.0	0.0	0.0	0.0	1.199
SSE	0.0	0.0	0.090	0.230	0.0	0.0	0.0	0.0	0.0	0.320
S	0.0	0.0	0.050	0.649	0.090	0.090	0.0	0.0	0.0	0.879
SSW	0.0	0.0	0.0	0.359	0.050	0.0	0.0	0.0	0.0	0.419
SW	0.0	0.0	0.0	0.419	0.140	0.0	0.0	0.0	0.0	0.559
WSW	0.0	0.0	0.0	0.0	0.090	0.0	0.0	0.0	0.0	0.090
W	0.0	0.0	0.050	0.0	0.050	0.509	0.090	0.0	0.0	0.739
WNW	0.0	0.0	0.0	0.090	0.090	0.509	0.190	0.140	0.0	1.010
NW	0.0	0.0	0.0	0.0	0.140	0.190	0.0	0.0	0.0	0.330
NNW	0.0	0.0	0.0	0.0	0.090	0.280	0.0	0.0	0.0	0.369
TOTALS	0.0	0.0	0.330	3.105	0.919	2.496	0.469	0.230	0.0	7.549

TABLE 5 (Continued)

## STABILITY CLASS C

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	0.050	0.050	0.190	0.320	0.0	0.050	0.0	0.659
NNE	0.0	0.0	0.0	0.090	0.090	0.090	0.0	0.0	0.0	0.270
NE	0.0	0.0	0.0	0.0	0.0	0.090	0.050	0.0	0.0	0.140
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	0.050	0.0	0.0	0.0	0.0	0.050
ESE	0.0	0.0	0.050	0.0	0.050	0.0	0.0	0.0	0.0	0.100
SE	0.0	0.0	0.140	0.369	0.0	0.0	0.0	0.0	0.0	0.509
SSE	0.0	0.0	0.230	0.190	0.090	0.0	0.0	0.0	0.0	0.509
S	0.0	0.0	0.280	0.320	0.090	0.0	0.0	0.0	0.0	0.689
SSH	0.0	0.0	0.0	0.090	0.090	0.050	0.0	0.0	0.0	0.230
SH	0.0	0.0	0.070	0.280	0.140	0.0	0.0	0.0	0.0	0.509
WSH	0.0	0.0	0.0	0.190	0.140	0.230	0.050	0.0	0.0	0.609
W	0.0	0.0	0.0	0.090	0.140	0.190	0.0	0.0	0.0	0.419
WNW	0.0	0.0	0.0	0.230	0.090	0.190	0.050	0.190	0.0	0.749
NW	0.0	0.0	0.0	0.090	0.0	0.190	0.050	0.0	0.0	0.330
NNW	0.0	0.0	0.0	0.050	0.090	0.369	0.090	0.0	0.0	0.599
TOTALS	0.0	0.0	0.839	2.037	1.248	1.717	0.290	0.240	0.0	6.371

## STABILITY CLASS D

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	0.140	0.280	0.369	0.419	0.230	0.0	0.0	1.438
NNE	0.0	0.050	0.230	0.320	0.320	0.689	0.140	0.0	0.0	1.747
NE	0.0	0.0	0.090	0.140	0.190	0.369	0.0	0.0	0.0	0.789
ENE	0.0	0.0	0.320	0.140	0.090	0.050	0.0	0.0	0.0	0.599
E	0.0	0.0	0.090	0.140	0.280	0.140	0.0	0.0	0.0	0.649
ESE	0.0	0.0	0.419	0.280	0.0	0.090	0.0	0.0	0.0	0.789
SE	0.0	0.0	1.897	1.568	0.190	0.090	0.0	0.0	0.0	3.744
SSE	0.0	0.050	1.438	1.198	0.320	0.140	0.0	0.0	0.0	3.145
S	0.0	0.0	1.338	1.897	0.649	0.320	0.0	0.0	0.0	4.204
SSH	0.0	0.0	0.929	0.649	0.190	0.190	0.0	0.0	0.0	1.957
SH	0.0	0.0	0.320	0.320	0.230	0.090	0.0	0.0	0.0	0.959
WSH	0.0	0.0	0.559	0.969	0.689	0.509	0.050	0.0	0.0	2.776
W	0.0	0.0	0.090	0.649	0.879	0.689	0.280	0.140	0.0	2.726
WNW	0.0	0.0	0.140	0.230	0.459	0.879	0.689	0.190	0.0	2.586
NW	0.0	0.0	0.0	0.280	0.599	0.419	0.419	0.090	0.0	1.807
NNW	0.0	0.0	0.050	0.459	0.789	0.509	0.879	0.0	0.0	2.686
TOTALS	0.0	0.100	8.048	9.516	6.241	5.592	2.686	0.419	0.0	32.602

TABLE 5 (Continued)

STABILITY CLASS E										
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	0.559	0.559	0.419	0.459	0.0	0.0	0.0	1.997
NNE	0.0	0.0	0.369	0.559	0.419	0.459	0.090	0.0	0.0	1.897
NE	0.0	0.0	0.789	0.459	0.559	0.509	0.0	0.0	0.0	2.317
ENE	0.0	0.050	0.969	0.459	0.140	0.090	0.0	0.0	0.0	1.707
E	0.0	0.0	0.369	0.419	0.140	0.0	0.0	0.0	0.0	0.929
ESE	0.0	0.0	1.058	0.599	0.050	0.050	0.0	0.0	0.0	1.757
SE	0.0	0.050	2.546	1.558	0.459	0.0	0.0	0.0	0.0	4.623
SSE	0.0	0.090	1.568	1.198	0.280	0.419	0.0	0.0	0.0	3.555
S	0.0	0.0	1.198	1.338	0.649	0.729	0.090	0.0	0.0	4.014
SSW	0.0	0.050	0.689	0.140	0.050	0.050	0.0	0.0	0.0	0.979
SW	0.0	0.050	0.419	0.090	0.0	0.140	0.0	0.0	0.0	0.699
WSW	0.0	0.0	0.739	0.280	0.190	0.369	0.0	0.0	0.0	1.578
W	0.0	0.0	0.459	0.369	0.230	0.280	0.050	0.0	0.0	1.388
WNW	0.0	0.050	0.230	0.090	0.050	0.280	0.0	0.0	0.0	0.699
NW	0.0	0.0	0.280	0.320	0.090	0.090	0.0	0.0	0.0	0.779
NNW	0.0	0.050	0.559	0.369	0.140	0.280	0.0	0.0	0.0	1.398
TOTALS	0.0	0.389	12.801	8.817	3.864	4.214	0.230	0.0	0.0	30.315

STABILITY CLASS F										
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	0.090	1.108	0.509	0.140	0.090	0.0	0.0	0.0	1.937
NNE	0.0	0.090	0.459	0.829	0.459	0.230	0.0	0.0	0.0	2.067
NE	0.0	0.140	0.599	0.090	0.140	0.0	0.0	0.0	0.0	0.969
ENE	0.0	0.050	0.689	0.509	0.090	0.0	0.0	0.0	0.0	1.338
E	0.0	0.0	0.459	0.280	0.0	0.0	0.0	0.0	0.0	0.739
ESE	0.0	0.0	0.419	0.190	0.0	0.0	0.0	0.0	0.0	0.609
SE	0.0	0.090	0.879	0.190	0.0	0.0	0.0	0.0	0.0	1.158
SSE	0.0	0.140	0.419	0.230	0.0	0.0	0.0	0.0	0.0	0.789
S	0.0	0.050	0.599	0.320	0.190	0.0	0.0	0.0	0.0	1.158
SSW	0.0	0.050	0.280	0.050	0.0	0.0	0.0	0.0	0.0	0.379
SW	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.100
WSW	0.0	0.0	0.090	0.090	0.0	0.0	0.0	0.0	0.0	0.180
W	0.0	0.0	0.090	0.050	0.0	0.0	0.0	0.0	0.0	0.140
WNW	0.0	0.0	0.090	0.0	0.0	0.0	0.0	0.0	0.0	0.090
NW	0.0	0.0	0.090	0.0	0.0	0.0	0.0	0.0	0.0	0.090
NNW	0.0	0.0	0.599	0.459	0.090	0.0	0.0	0.0	0.0	1.148
TOTALS	0.0	0.749	6.920	3.794	1.108	0.320	0.0	0.0	0.0	12.891

TABLE 5 (Continued)

STABILITY CLASS C										
KIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED										
SECTOR	0.13	0.45	1.10	1.99	2.60	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.829	0.190	0.050	0.0	0.0	0.0	0.0	1.068
NNE	0.0	0.050	0.969	0.599	0.090	0.0	0.0	0.0	0.0	1.707
NE	0.0	0.0	0.559	0.140	0.0	0.0	0.0	0.0	0.0	0.699
ENE	0.0	0.0	0.190	0.280	0.0	0.0	0.0	0.0	0.0	0.469
E	0.0	0.0	0.230	0.290	0.0	0.0	0.0	0.0	0.0	0.509
ESE	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
SE	0.0	0.190	0.190	0.090	0.0	0.0	0.0	0.0	0.0	0.469
SSE	0.0	0.0	0.599	0.190	0.0	0.0	0.0	0.0	0.0	0.789
S	0.0	0.0	0.140	0.269	0.090	0.0	0.0	0.0	0.0	0.599
SSW	0.0	0.0	0.090	0.0	0.0	0.0	0.0	0.0	0.0	0.090
SW	0.0	0.0	0.090	0.0	0.0	0.0	0.0	0.0	0.0	0.090
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	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
NW	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
NNW	0.0	0.0	0.230	0.0	0.0	0.0	0.0	0.0	0.0	0.230
TOTALS	0.0	0.240	4.264	2.137	0.230	0.0	0.0	0.0	0.0	6.870

TABLE 6

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL SPLIT-LEVEL JOINT FREQUENCYDISTRIBUTION IN PERCENT - REACTOR AND RADWASTE BUILDING RELEASESFIRST QUARTER, 1978GROUND-LEVEL PORTIONSTABILITY 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	0.060	0.0	0.0	0.0	0.060
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	0.060	0.0	0.0	0.0	0.0	0.0	0.060
SSE	0.0	0.0	0.0	0.020	0.0	0.0	0.0	0.0	0.0	0.020
S	0.0	0.0	0.0	0.010	0.030	0.040	0.0	0.0	0.0	0.080
SSW	0.0	0.0	0.0	0.0	0.040	0.0	0.0	0.0	0.0	0.040
SW	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.010
WSW	0.0	0.0	0.0	0.0	0.0	0.040	0.0	0.0	0.0	0.040
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	0.050	0.050	0.0	0.100
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.040	0.0	0.0	0.040
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	0.100	0.070	0.140	0.090	0.050	0.0	0.449

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	0.309	0.0	0.0	0.0	0.309
NNE	0.0	0.0	0.0	0.0	0.0	0.170	0.090	0.0	0.0	0.259
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	0.010	0.0	0.0	0.0	0.0	0.010
SE	0.0	0.0	0.0	0.040	0.0	0.0	0.0	0.0	0.0	0.040
SSE	0.0	0.0	0.0	0.020	0.020	0.0	0.0	0.0	0.0	0.040
S	0.0	0.0	0.0	0.050	0.040	0.0	0.0	0.0	0.0	0.090
SSW	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.010
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	0.010	0.080	0.0	0.0	0.0	0.090
W	0.0	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.090
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.180	0.090	0.0	0.269
NW	0.0	0.0	0.0	0.0	0.010	0.070	0.0	0.0	0.0	0.080
NNW	0.0	0.0	0.0	0.0	0.0	0.040	0.050	0.0	0.0	0.140
TOTALS	0.0	0.0	0.0	0.120	0.090	0.808	0.319	0.090	0.0	1.427

TABLE 6 (CONTINUED)

## STABILITY CLASS C

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	0.010	0.020	0.140	0.050	0.0	0.0	0.220
NNE	0.0	0.0	0.0	0.010	0.010	0.100	0.0	0.0	0.0	0.120
NE	0.0	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.010
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	0.020	0.010	0.0	0.0	0.0	0.0	0.030
SSE	0.0	0.0	0.0	0.020	0.030	0.0	0.0	0.0	0.0	0.050
S	0.0	0.0	0.0	0.020	0.0	0.0	0.0	0.0	0.0	0.020
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	0.010	0.0	0.0	0.0	0.0	0.0	0.010
WSW	0.0	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.010
W	0.0	0.0	0.0	0.0	0.010	0.010	0.090	0.0	0.0	0.110
WNW	0.0	0.0	0.0	0.010	0.020	0.050	0.279	0.0	0.0	0.359
NW	0.0	0.0	0.0	0.0	0.0	0.120	0.090	0.0	0.0	0.210
NNW	0.0	0.0	0.0	0.0	0.010	0.140	0.140	0.0	0.0	0.289
TOTALS	0.0	0.0	0.0	0.100	0.130	0.559	0.649	0.0	0.0	1.437

## STABILITY CLASS D

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	0.010	0.080	0.180	1.367	1.297	0.050	0.0	2.983
NNE	0.0	0.0	0.020	0.130	0.210	1.447	0.549	0.0	0.0	2.355
NE	0.0	0.0	0.0	0.060	0.229	0.698	0.0	0.0	0.0	0.983
ENE	0.0	0.0	0.010	0.070	0.050	0.010	0.0	0.0	0.0	0.150
E	0.0	0.0	0.010	0.110	0.040	0.010	0.0	0.0	0.0	0.170
ESE	0.0	0.0	0.0	0.080	0.050	0.0	0.0	0.0	0.0	0.130
SE	0.0	0.0	0.030	0.080	0.140	0.130	0.0	0.0	0.0	0.379
SSE	0.0	0.0	0.010	0.060	0.140	0.0	0.0	0.0	0.0	0.210
S	0.0	0.0	0.010	0.090	0.020	0.259	0.0	0.0	0.0	0.379
SSW	0.0	0.0	0.010	0.010	0.0	0.180	0.0	0.0	0.0	0.200
SW	0.0	0.0	0.010	0.010	0.050	0.0	0.0	0.0	0.0	0.070
WSW	0.0	0.0	0.0	0.010	0.050	0.359	0.279	0.0	0.0	0.698
W	0.0	0.0	0.0	0.020	0.100	0.659	0.469	0.0	0.0	1.247
WNW	0.0	0.0	0.0	0.020	0.090	1.427	2.035	0.190	0.0	3.761
NW	0.0	0.0	0.0	0.050	0.060	1.936	2.584	0.329	0.050	5.009
NNW	0.0	0.0	0.010	0.120	0.210	2.854	2.095	0.509	0.050	5.847
TOTALS	0.0	0.0	0.130	0.998	1.626	11.334	9.309	1.078	0.100	24.574

TABLE 6 (CONTINUED)

STABILITY CLASS E										
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	0.070	0.120	0.150	0.429	0.140	0.0	0.0	0.908
NNE	0.0	0.0	0.060	0.150	0.130	0.479	0.050	0.0	0.0	0.868
NE	0.0	0.0	0.030	0.120	0.200	0.229	0.0	0.0	0.0	0.579
ENE	0.0	0.0	0.040	0.110	0.080	0.040	0.0	0.0	0.0	0.269
E	0.0	0.010	0.030	0.140	0.060	0.040	0.0	0.0	0.0	0.279
ESE	0.0	0.010	0.050	0.130	0.050	0.030	0.0	0.0	0.0	0.269
SE	0.0	0.0	0.160	0.399	0.289	0.399	0.0	0.0	0.0	1.247
SSE	0.0	0.0	0.170	0.210	0.369	0.140	0.0	0.0	0.0	0.889
S	0.0	0.010	0.070	0.080	0.110	0.788	0.0	0.050	0.0	1.107
SSW	0.0	0.0	0.020	0.130	0.170	0.329	0.0	0.0	0.0	0.649
SW	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.010
WSW	0.0	0.0	0.020	0.110	0.050	0.030	0.050	0.0	0.0	0.259
W	0.0	0.0	0.020	0.020	0.030	0.070	0.0	0.0	0.0	0.140
WNW	0.0	0.0	0.0	0.020	0.040	0.010	0.0	0.0	0.0	0.070
NW	0.0	0.0	0.0	0.030	0.020	0.229	0.0	0.0	0.0	0.279
NNW	0.0	0.0	0.040	0.100	0.210	0.778	0.140	0.0	0.0	1.267
TOTALS	0.0	0.030	0.778	1.876	1.956	4.021	0.379	0.050	0.0	9.089

STABILITY CLASS F										
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	0.010	0.040	0.100	0.040	0.0	0.0	0.0	0.229
NNE	0.0	0.0	0.020	0.080	0.060	0.140	0.0	0.0	0.0	0.299
NE	0.0	0.0	0.030	0.020	0.0	0.0	0.0	0.0	0.0	0.050
ENE	0.0	0.0	0.050	0.040	0.030	0.0	0.0	0.0	0.0	0.120
E	0.0	0.0	0.010	0.040	0.100	0.0	0.0	0.0	0.0	0.150
ESE	0.0	0.0	0.040	0.020	0.0	0.0	0.0	0.0	0.0	0.060
SE	0.0	0.0	0.030	0.309	0.090	0.050	0.0	0.0	0.0	0.529
SSE	0.0	0.010	0.070	0.190	0.190	0.140	0.050	0.090	0.0	0.738
S	0.0	0.0	0.040	0.040	0.299	0.279	0.0	0.050	0.0	0.708
SSW	0.0	0.0	0.020	0.020	0.050	0.0	0.0	0.0	0.0	0.090
SW	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.0	0.010
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	0.010	0.0	0.0	0.0	0.0	0.0	0.010
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	0.010	0.010	0.0	0.0	0.0	0.0	0.0	0.020
NNW	0.0	0.0	0.040	0.050	0.010	0.040	0.0	0.0	0.0	0.140
TOTALS	0.0	0.010	0.429	0.908	0.928	0.688	0.050	0.140	0.0	3.153

TABLE 6 (CONTINUED)

STABILITY CLASS G										
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	13.90	TOTALS
N	0.0	0.0	0.020	0.030	0.0	0.0	0.0	0.0	0.0	0.050
NNE	0.0	0.0	0.010	0.010	0.0	0.0	0.0	0.0	0.0	0.020
NE	0.0	0.0	0.010	0.020	0.0	0.0	0.0	0.0	0.0	0.030
ENE	0.0	0.0	0.010	0.010	0.0	0.0	0.0	0.0	0.0	0.020
E	0.0	0.0	0.010	0.040	0.0	0.0	0.0	0.0	0.0	0.050
ESE	0.0	0.0	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.030
SE	0.0	0.0	0.070	0.050	0.0	0.0	0.0	0.0	0.0	0.120
SSE	0.0	0.0	0.239	0.469	0.140	0.369	0.0	0.0	0.0	1.217
S	0.0	0.010	0.060	0.220	0.259	0.050	0.0	0.0	0.0	0.639
SSW	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.010
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	0.010	0.010	0.0	0.0	0.0	0.0	0.0	0.020
TOTALS	0.0	0.020	0.469	0.858	0.439	0.419	0.0	0.0	0.0	2.205

ELEVATED PORTION OF SPLIT-LEVEL JFD'S

## WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED

[illegible]

## WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED

[illegible]

TABLE 6 (CONTINUED)

## STABILITY CLASS C

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	0.040	0.040	0.0	0.0	0.0	0.0	0.080
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	0.090	0.0	0.0	0.0	0.0	0.0	0.090
SW	0.0	0.0	0.050	0.0	0.0	0.0	0.010	0.0	0.0	0.060
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	0.040	0.0	0.0	0.0	0.040
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.010	0.0	0.0	0.010
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	0.050	0.130	0.040	0.040	0.020	0.0	0.0	0.279

## STABILITY CLASS D

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	0.369	0.718	0.898	2.355	0.429	0.0	0.0	4.769
NNE	0.0	0.0	0.329	0.848	1.147	2.594	0.239	0.0	0.0	5.208
NE	0.0	0.0	0.140	0.379	0.549	1.816	0.050	0.0	0.0	2.933
ENE	0.0	0.0	0.190	0.509	0.319	0.409	0.0	0.0	0.0	1.427
E	0.0	0.050	0.050	0.379	0.279	0.220	0.0	0.0	0.0	0.978
ESE	0.0	0.0	0.180	0.369	0.629	0.658	0.0	0.0	0.0	1.866
SE	0.0	0.0	0.459	0.718	0.239	0.499	0.060	0.0	0.0	1.976
SSE	0.0	0.0	0.229	0.309	0.160	0.319	0.070	0.0	0.0	1.088
S	0.0	0.050	0.279	0.339	0.080	0.259	0.060	0.0	0.0	1.068
SSW	0.0	0.0	0.050	0.220	0.120	0.429	0.020	0.0	0.0	0.838
SW	0.0	0.0	0.279	0.210	0.200	0.170	0.070	0.0	0.0	0.928
WSW	0.0	0.0	0.229	0.040	0.120	0.429	0.020	0.0	0.0	0.838
W	0.0	0.050	0.050	0.130	0.229	1.467	0.210	0.0	0.0	2.135
WNW	0.0	0.0	0.190	0.210	0.429	1.317	8.379	0.0	0.0	2.524
NW	0.0	0.0	0.140	0.589	0.629	1.976	0.529	0.0	0.0	3.861
NNW	0.0	0.0	0.050	0.629	0.668	2.864	0.479	0.0	0.0	4.689
TOTALS	0.0	0.150	3.213	6.615	6.695	17.790	2.664	0.0	0.0	37.126

TABLE 6 (CONTINUED)

## STABILITY CLASS E

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED									TOTALS
	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	
N	0.0	0.0	0.090	0.299	0.439	0.489	0.0	0.0	0.0	1.317
NNE	0.0	0.0	0.0	0.379	0.748	0.798	0.080	0.0	0.0	2.005
NE	0.0	0.0	0.0	0.170	0.160	0.469	0.0	0.0	0.0	0.798
ENE	0.0	0.0	0.140	0.090	0.160	0.429	0.010	0.0	0.0	0.828
E	0.0	0.0	0.0	0.0	0.200	0.349	0.0	0.0	0.0	0.549
ESE	0.0	0.0	0.050	0.339	0.708	1.068	0.040	0.0	0.0	2.205
SE	0.0	0.0	0.279	0.668	0.319	1.297	0.080	0.0	0.0	2.644
SSE	0.0	0.0	0.090	0.379	0.359	0.918	0.110	0.0	0.0	1.856
S	0.0	0.0	0.0	0.210	0.279	0.200	0.050	0.0	0.0	0.738
SSW	0.0	0.0	0.0	0.170	0.269	0.279	0.030	0.0	0.0	0.748
SW	0.0	0.0	0.0	0.040	0.080	0.319	0.0	0.0	0.0	0.439
WSW	0.0	0.0	0.0	0.130	0.120	0.110	0.0	0.0	0.0	0.359
W	0.0	0.0	0.0	0.080	0.040	0.040	0.0	0.0	0.0	0.160
WNW	0.0	0.0	0.090	0.0	0.040	0.040	0.020	0.0	0.0	0.190
NW	0.0	0.0	0.0	0.080	0.040	0.190	0.020	0.0	0.0	0.329
NNW	0.0	0.0	0.050	0.040	0.040	0.160	0.020	0.0	0.0	0.309
TOTALS	0.0	0.0	0.788	3.073	4.001	7.154	0.459	0.0	0.0	15.475

## STABILITY CLASS F

SECTOR	WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED									TOTALS
	0.13	0.45	1.10	1.99	2.80	4.45	6.91	9.59	13.00	
N	0.0	0.0	0.0	0.0	0.0	0.070	0.0	0.0	0.0	0.070
NNE	0.0	0.0	0.050	0.0	0.0	0.040	0.0	0.0	0.0	0.090
NE	0.0	0.0	0.0	0.040	0.0	0.050	0.0	0.0	0.0	0.120
ENE	0.0	0.0	0.0	0.090	0.120	0.289	0.0	0.0	0.0	0.499
E	0.0	0.0	0.0	0.080	0.0	0.220	0.010	0.0	0.0	0.309
ESE	0.0	0.0	0.050	0.130	0.239	0.110	0.0	0.0	0.0	0.529
SE	0.0	0.0	0.050	0.259	0.160	0.259	0.0	0.0	0.0	0.728
SSE	0.0	0.0	0.050	0.040	0.160	0.0	0.020	0.0	0.0	0.269
S	0.0	0.0	0.0	0.0	0.0	0.269	0.010	0.0	0.0	0.279
SSW	0.0	0.0	0.0	0.0	0.0	0.349	0.010	0.0	0.0	0.359
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	0.040	0.0	0.0	0.0	0.0	0.0	0.040
W	0.0	0.0	0.0	0.0	0.040	0.0	0.0	0.0	0.0	0.040
WNW	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.0	0.0	0.050
NW	0.0	0.0	0.0	0.090	0.0	0.0	0.0	0.0	0.0	0.090
NNW	0.0	0.0	0.0	0.0	0.0	0.020	0.0	0.0	0.0	0.020
TOTALS	0.0	0.0	0.249	0.768	0.718	1.706	0.050	0.0	0.0	3.492

TABLE 6 (CONTINUED)

STABILITY CLASS G

WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED										
SECTOR	0.13	0.45	1.10	1.99	2.60	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	0.020	0.0	0.0	0.0	0.020
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	0.050	0.170	0.0	0.0	0.0	0.0	0.0	0.220
SE	0.0	0.0	0.090	0.130	0.120	0.070	0.0	0.0	0.0	0.409
SSF	0.0	0.0	0.050	0.040	0.040	0.0	0.0	0.0	0.0	0.130
S	0.0	0.0	0.0	0.040	0.120	0.0	0.0	0.0	0.0	0.160
SSW	0.0	0.0	0.0	0.040	0.040	0.070	0.0	0.0	0.0	0.150
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	0.0	0.0	0.040	0.120	0.0	0.0	0.0	0.0	0.160
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	0.239	0.459	0.439	0.160	0.0	0.0	0.0	1.297

GROUND-LEVEL RELEASES = 42.3 PERCENT

ELEVATED RELEASES = 57.7 PERCENT

TABLE 7

## BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA

## SPLIT-LEVEL JOINT FREQUENCY DISTRIBUTION IN PERCENT

## REACTOR AND RADWASTE BUILDING RELEASES - SECOND QUARTER, 1978

## GROUND-LEVEL PORTION

## 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	0.060	0.130	0.0	0.0	0.190
NNE	0.0	0.0	0.0	0.0	0.0	0.070	0.230	0.0	0.0	0.300
NE	0.0	0.0	0.0	0.0	0.0	0.060	0.0	0.0	0.0	0.060
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	0.010	0.0	0.0	0.0	0.0	0.0	0.010
SF	0.0	0.0	0.0	0.140	0.020	0.0	0.0	0.0	0.0	0.160
SSE	0.0	0.0	0.0	0.160	0.050	0.0	0.0	0.0	0.0	0.210
S	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.0	0.050
SSH	0.0	0.0	0.0	0.040	0.130	0.050	0.0	0.0	0.0	0.220
SW	0.0	0.0	0.0	0.0	0.0	0.050	0.0	0.0	0.0	0.050
WSH	0.0	0.0	0.0	0.0	0.020	0.050	0.0	0.0	0.0	0.070
W	0.0	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.010
NNW	0.0	0.0	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.010
NW	0.0	0.0	0.0	0.0	0.0	0.070	0.0	0.0	0.0	0.070
NNW	0.0	0.0	0.0	0.0	0.0	0.040	0.040	0.0	0.0	0.080
TOTALS	0.0	0.0	0.0	0.350	0.280	0.460	0.400	0.0	0.0	1.489

## 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	0.010	0.010	0.140	0.050	0.090	0.0	0.300
NNE	0.0	0.0	0.0	0.0	0.020	0.110	0.050	0.0	0.0	0.180
NE	0.0	0.0	0.0	0.010	0.0	0.110	0.090	0.0	0.0	0.210
ENE	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.010
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	0.010	0.150	0.0	0.0	0.0	0.0	0.0	0.160
SSE	0.0	0.0	0.0	0.020	0.0	0.0	0.0	0.0	0.0	0.020
S	0.0	0.0	0.010	0.120	0.080	0.090	0.0	0.0	0.0	0.300
SSH	0.0	0.0	0.0	0.060	0.030	0.0	0.0	0.0	0.0	0.090
SW	0.0	0.0	0.0	0.050	0.020	0.0	0.0	0.0	0.0	0.070
WSH	0.0	0.0	0.0	0.0	0.030	0.0	0.0	0.0	0.0	0.030
W	0.0	0.0	0.0	0.0	0.020	0.160	0.090	0.0	0.0	0.270
NNW	0.0	0.0	0.0	0.010	0.010	0.190	0.160	0.140	0.0	0.510
NW	0.0	0.0	0.0	0.0	0.020	0.050	0.0	0.0	0.0	0.070
NNW	0.0	0.0	0.0	0.0	0.020	0.130	0.0	0.0	0.0	0.150
TOTALS	0.0	0.0	0.020	0.440	0.260	0.979	0.440	0.230	0.0	2.368

TABLE 7 (Continued)

## STABILITY CLASS C

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	0.030	0.140	0.0	0.050	0.0	0.220
NNE	0.0	0.0	0.0	0.010	0.020	0.040	0.0	0.0	0.0	0.070
NE	0.0	0.0	0.0	0.0	0.0	0.050	0.050	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	0.010	0.0	0.0	0.0	0.0	0.010
ESE	0.0	0.0	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.010
SE	0.0	0.0	0.010	0.050	0.0	0.0	0.0	0.0	0.0	0.060
SSE	0.0	0.0	0.020	0.020	0.060	0.0	0.0	0.0	0.0	0.100
S	0.0	0.0	0.010	0.040	0.030	0.0	0.0	0.0	0.0	0.130
SSW	0.0	0.0	0.0	0.010	0.050	0.050	0.0	0.0	0.0	0.110
SW	0.0	0.0	0.0	0.030	0.020	0.0	0.0	0.0	0.0	0.050
WSW	0.0	0.0	0.0	0.020	0.030	0.200	0.050	0.0	0.0	0.200
W	0.0	0.0	0.0	0.010	0.030	0.070	0.0	0.0	0.0	0.110
NNW	0.0	0.0	0.0	0.030	0.020	0.120	0.050	0.190	0.0	0.420
NW	0.0	0.0	0.0	0.010	0.0	0.040	0.050	0.0	0.0	0.100
NNW	0.0	0.0	0.0	0.010	0.020	0.120	0.090	0.0	0.0	0.240
TOTALS	0.0	0.0	0.040	0.240	0.380	0.839	0.290	0.240	0.0	2.028

## STABILITY CLASS D

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	0.030	0.070	0.120	0.230	0.0	0.0	0.450
NNE	0.0	0.010	0.010	0.040	0.060	0.380	0.140	0.0	0.0	0.640
NE	0.0	0.0	0.0	0.010	0.030	0.180	0.0	0.0	0.0	0.220
ENE	0.0	0.0	0.010	0.020	0.020	0.010	0.0	0.0	0.0	0.060
E	0.0	0.0	0.0	0.020	0.110	0.100	0.0	0.0	0.0	0.230
ESE	0.0	0.0	0.010	0.040	0.0	0.070	0.0	0.0	0.0	0.120
SE	0.0	0.0	0.100	0.360	0.100	0.080	0.0	0.0	0.0	0.640
SSE	0.0	0.0	0.090	0.340	0.260	0.140	0.0	0.0	0.0	0.829
S	0.0	0.0	0.110	0.520	0.500	0.320	0.0	0.0	0.0	1.249
SSW	0.0	0.0	0.050	0.110	0.060	0.120	0.0	0.0	0.0	0.430
SW	0.0	0.0	0.020	0.050	0.040	0.090	0.0	0.0	0.0	0.200
WSW	0.0	0.0	0.040	0.170	0.130	0.450	0.050	0.0	0.0	0.869
W	0.0	0.0	0.0	0.090	0.130	0.510	0.280	0.140	0.0	1.199
NNW	0.0	0.0	0.0	0.020	0.080	0.440	0.689	0.190	0.0	1.419
NW	0.0	0.0	0.0	0.030	0.100	0.210	0.410	0.090	0.0	0.839
NNW	0.0	0.0	0.0	0.050	0.140	0.310	0.879	0.0	0.0	1.369
TOTALS	0.0	0.010	0.440	1.709	1.949	3.597	2.678	0.420	0.0	10.802

TABLE 7 (Continued)

STABILITY CLASS E										
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	0.040	0.090	0.110	0.340	0.0	0.0	0.0	0.580
NNE	0.0	0.0	0.030	0.100	0.130	0.370	0.090	0.0	0.0	0.719
NE	0.0	0.0	0.070	0.080	0.250	0.390	0.0	0.0	0.0	0.789
ENE	0.0	0.0	0.090	0.090	0.040	0.060	0.0	0.0	0.0	0.280
E	0.0	0.0	0.030	0.110	0.060	0.0	0.0	0.0	0.0	0.200
ESE	0.0	0.0	0.120	0.100	0.010	0.050	0.0	0.0	0.0	0.280
SE	0.0	0.0	0.370	0.640	0.280	0.0	0.0	0.0	0.0	1.289
SSE	0.0	0.0	0.210	0.640	0.280	0.420	0.0	0.0	0.0	1.549
S	0.0	0.0	0.160	0.570	0.600	0.739	0.090	0.0	0.0	2.178
SSW	0.0	0.0	0.070	0.050	0.050	0.050	0.0	0.0	0.0	0.220
SW	0.0	0.0	0.030	0.010	0.0	0.100	0.0	0.0	0.0	0.140
WSW	0.0	0.0	0.090	0.040	0.070	0.320	0.0	0.0	0.0	0.520
W	0.0	0.0	0.060	0.060	0.060	0.280	0.050	0.0	0.0	0.510
WNW	0.0	0.0	0.020	0.020	0.020	0.200	0.0	0.0	0.0	0.260
NW	0.0	0.0	0.030	0.050	0.020	0.070	0.0	0.0	0.0	0.170
NNW	0.0	0.0	0.040	0.050	0.030	0.170	0.0	0.0	0.0	0.300
TOTALS	0.0	0.0	1.479	2.708	2.000	3.557	0.230	0.0	0.0	9.982

STABILITY CLASS F										
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	0.120	0.070	0.060	0.090	0.0	0.0	0.0	0.360
NNE	0.0	0.0	0.050	0.170	0.239	0.190	0.0	0.0	0.0	0.640
NE	0.0	0.010	0.060	0.030	0.100	0.0	0.0	0.0	0.0	0.200
ENE	0.0	0.010	0.080	0.120	0.050	0.0	0.0	0.0	0.0	0.260
E	0.0	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.0	0.100
ESE	0.0	0.0	0.060	0.030	0.0	0.0	0.0	0.0	0.0	0.090
SE	0.0	0.010	0.160	0.070	0.0	0.0	0.0	0.0	0.0	0.240
SSE	0.0	0.010	0.070	0.190	0.0	0.0	0.0	0.0	0.0	0.270
S	0.0	0.010	0.110	0.190	0.170	0.0	0.0	0.0	0.0	0.480
SSW	0.0	0.010	0.050	0.030	0.0	0.0	0.0	0.0	0.0	0.090
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	0.020	0.0	0.0	0.0	0.0	0.0	0.020
W	0.0	0.0	0.010	0.010	0.0	0.0	0.0	0.0	0.0	0.020
WNW	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.0	0.010
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	0.040	0.080	0.030	0.0	0.0	0.0	0.0	0.150
TOTALS	0.0	0.060	0.869	1.079	0.640	0.200	0.0	0.0	0.0	2.928

TABLE 7 (Continued)

## STABILITY CLASS G

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	13.60	TOTALS
N	0.0	0.0	0.080	0.040	0.020	0.0	0.0	0.0	0.0	0.140
NNE	0.0	0.0	0.090	0.120	0.060	0.0	0.0	0.0	0.0	0.270
NF	0.0	0.0	0.050	0.050	0.0	0.0	0.0	0.0	0.0	0.100
ENE	0.0	0.0	0.010	0.060	0.0	0.0	0.0	0.0	0.0	0.070
E	0.0	0.0	0.010	0.040	0.0	0.0	0.0	0.0	0.0	0.050
ESE	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.0	0.010
SE	0.0	0.020	0.010	0.040	0.0	0.0	0.0	0.0	0.0	0.070
SSE	0.0	0.0	0.160	0.100	0.0	0.0	0.0	0.0	0.0	0.260
S	0.0	0.0	0.040	0.280	0.080	0.0	0.0	0.0	0.0	0.400
SSH	0.0	0.0	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.030
SW	0.0	0.0	0.010	0.0	0.0	0.0	0.0	0.0	0.0	0.010
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	0.020	0.0	0.0	0.0	0.0	0.0	0.0	0.020
TOTALS	0.0	0.020	0.520	0.729	0.160	0.0	0.0	0.0	0.0	1.429

ELEVATED PORTION OF SPLIT-LEVEL JFD

## WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED

WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED[illegible]

TABLE 7 (Continued)

## STABILITY CLASS C

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	0.040	0.0	0.0	0.0	0.0	0.0	0.040
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	0.040	0.0	0.0	0.0	0.0	0.0	0.040

## STABILITY CLASS D

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	0.140	0.210	0.510	1.179	0.060	0.0	0.0	2.118
NNE	0.0	0.0	0.040	0.210	0.200	0.959	0.090	0.0	0.0	1.499
NE	0.0	0.0	0.040	0.340	0.350	0.550	0.020	0.0	0.0	1.299
ENE	0.0	0.0	0.090	0.090	0.040	0.110	0.0	0.0	0.0	0.320
E	0.0	0.0	0.190	0.6	0.260	0.240	0.0	0.0	0.0	0.630
ESE	0.0	0.0	0.230	0.630	0.590	0.250	0.040	0.0	0.0	1.739
SE	0.0	0.0	0.969	1.799	0.540	0.669	0.030	0.0	0.0	4.007
SSE	0.0	0.0	0.910	0.969	0.770	1.289	0.110	0.0	0.0	4.067
S	0.0	0.0	0.510	1.049	0.769	1.039	0.140	0.0	0.0	3.527
SSW	0.0	0.0	0.500	0.630	0.630	0.709	0.060	0.0	0.0	2.529
SW	0.0	0.0	0.280	1.179	0.630	0.630	0.050	0.0	0.0	2.768
WSW	0.0	0.0	0.190	0.500	0.669	0.390	0.140	0.0	0.0	1.889
W	0.0	0.0	0.050	0.450	0.919	1.339	0.070	0.0	0.0	2.868
WNW	0.0	0.0	0.090	0.130	0.230	1.029	0.160	0.0	0.0	1.639
NW	0.0	0.0	0.0	0.420	0.510	0.919	0.070	0.0	0.0	1.919
NNW	0.0	0.0	0.140	0.210	0.590	1.029	0.030	0.0	0.0	1.998
TOTALS	0.0	0.0	4.377	8.803	8.234	12.330	1.089	0.0	0.0	34.833

TABLE 7 (Continued)

STABILITY CLASS E										
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	0.320	0.290	0.270	0.640	0.040	0.0	0.0	1.559
NNE	0.0	0.0	0.180	0.210	0.210	1.179	0.030	0.0	0.0	1.909
NE	0.0	0.0	0.090	0.150	0.430	0.340	0.070	0.0	0.0	1.089
ENE	0.0	0.0	0.460	0.170	0.470	0.370	0.060	0.0	0.0	1.529
E	0.0	0.0	0.140	0.340	0.120	0.480	0.010	0.0	0.0	1.089
ESE	0.0	0.0	0.460	0.430	0.430	0.250	0.020	0.0	0.0	1.589
SE	0.0	0.050	0.510	1.149	1.259	0.839	0.0	0.0	0.0	3.807
SSE	0.0	0.0	0.180	0.640	0.390	0.679	0.070	0.0	0.0	1.958
S	0.0	0.0	0.140	0.789	0.230	0.679	0.060	0.0	0.0	1.919
SSW	0.0	0.0	0.180	0.460	0.240	0.610	0.020	0.0	0.0	1.579
SW	0.0	0.0	0.410	0.210	0.430	0.360	0.030	0.0	0.0	1.439
WSW	0.0	0.0	0.140	0.250	0.350	0.050	0.010	0.0	0.0	0.799
W	0.0	0.0	0.050	0.120	0.120	0.130	0.020	0.0	0.0	0.440
WNW	0.0	0.0	0.090	0.130	0.120	0.180	0.010	0.0	0.0	0.530
NW	0.0	0.0	0.280	0.340	0.080	0.210	0.0	0.0	0.0	0.909
NNW	0.0	0.0	0.190	0.210	0.550	0.520	0.030	0.0	0.0	1.499
TOTALS	0.0	0.050	3.817	5.095	5.796	7.514	0.570	0.0	0.0	23.642

STABILITY CLASS F										
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	0.050	0.260	0.120	0.170	0.0	0.0	0.0	0.600
NNE	0.0	0.0	0.140	0.210	0.270	0.300	0.100	0.0	0.0	1.019
NE	0.0	0.0	0.090	0.170	0.230	0.420	0.040	0.0	0.0	0.949
ENE	0.0	0.0	0.090	0.250	0.270	0.420	0.010	0.0	0.0	1.039
E	0.0	0.050	0.0	0.120	0.160	0.290	0.0	0.0	0.0	0.620
ESE	0.0	0.0	0.140	0.450	0.120	0.040	0.0	0.0	0.0	0.759
SE	0.0	0.0	0.140	0.370	0.230	0.0	0.0	0.0	0.0	0.789
SSE	0.0	0.0	0.050	0.210	0.120	0.040	0.0	0.0	0.0	0.420
S	0.0	0.0	0.0	0.040	0.120	0.370	0.020	0.0	0.0	0.500
SSW	0.0	0.0	0.090	0.160	0.040	0.490	0.0	0.0	0.0	0.779
SW	0.0	0.0	0.090	0.130	0.040	0.110	0.0	0.0	0.0	0.370
WSW	0.0	0.0	0.0	0.040	0.0	0.0	0.0	0.0	0.0	0.040
W	0.0	0.0	0.050	0.090	0.0	0.040	0.0	0.0	0.0	0.130
WNW	0.0	0.0	0.0	0.130	0.0	0.070	0.0	0.0	0.0	0.200
NW	0.0	0.0	0.0	0.090	0.040	0.0	0.0	0.0	0.0	0.130
NNW	0.0	0.0	0.050	0.080	0.0	0.070	0.0	0.0	0.0	0.200
TOTALS	0.0	0.050	0.979	2.608	1.809	2.778	0.170	0.0	0.0	8.593

TABLE 7 (Continued)

STABILITY CLASS G										
WIND SPEEDS IN METERS PER SECOND FROM THE SECTORS INDICATED										
SECTOR	0.13	0.45	1.10	1.99	2.60	4.45	6.91	9.59	13.00	TOTALS
N	0.0	0.0	0.0	0.040	0.050	0.040	0.0	0.0	0.0	0.160
NNE	0.0	0.0	0.040	0.080	0.080	0.0	0.0	0.0	0.0	0.200
NE	0.0	0.0	0.050	0.0	0.040	0.150	0.0	0.0	0.0	0.240
ENE	0.0	0.0	0.0	0.040	0.0	0.0	0.020	0.0	0.0	0.060
E	0.0	0.0	0.0	0.040	0.0	0.040	0.0	0.0	0.0	0.080
ESE	0.0	0.0	0.140	0.120	0.0	0.0	0.0	0.0	0.0	0.260
SE	0.0	0.0	0.190	0.090	0.080	0.0	0.0	0.0	0.0	0.360
SSE	0.0	0.0	0.050	0.060	0.080	0.0	0.0	0.0	0.0	0.170
S	0.0	0.0	0.050	0.040	0.0	0.0	0.0	0.0	0.0	0.090
SSW	0.0	0.0	0.0	0.040	0.0	0.210	0.0	0.0	0.0	0.250
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	0.520	0.530	0.360	0.440	0.020	0.0	0.0	1.869

GROUND-LEVEL RELEASES = 31.0 PERCENT

ELEVATED RELEASES = 69.0 PERCENT

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA ELEVATED JOINT FREQUENCY

FIRST QUARTER, 1978

[illegible][illegible]

TABLE 8 (CONTINUED)

STABILITY CLASS C										
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
SSF	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										
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	0.280	0.660	0.990	3.460	3.810	1.040	0.050	10.311
NNE	0.0	0.0	0.280	0.610	0.850	4.520	3.620	0.230	0.0	10.161
NE	0.0	0.0	0.190	0.280	0.750	3.200	1.980	0.930	0.0	6.451
ENE	0.0	0.0	0.140	0.240	0.380	1.180	0.890	0.050	0.0	2.880
E	0.0	0.0	0.090	0.420	0.420	0.850	0.380	0.0	0.0	2.160
ESE	0.0	0.0	0.140	0.380	0.470	1.320	0.690	0.190	0.090	3.480
SE	0.0	0.0	0.140	0.470	0.750	1.930	2.450	1.180	0.420	7.341
SSF	0.0	0.0	0.050	0.470	0.750	1.600	2.210	0.710	0.660	6.451
S	0.0	0.0	0.140	0.190	0.650	1.360	2.260	0.990	0.050	5.651
SSW	0.0	0.0	0.090	0.240	0.240	0.940	1.800	0.490	0.090	4.090
SW	0.0	0.0	0.090	0.320	0.240	1.040	1.220	0.220	0.040	3.300
WSW	0.0	0.0	0.420	0.280	0.050	0.610	0.750	0.420	0.280	2.810
W	0.0	0.0	0.050	0.240	0.280	1.220	1.360	0.710	0.850	4.711
WNW	0.0	0.0	0.090	0.280	0.240	1.980	3.670	1.450	0.470	8.191
NW	0.0	0.090	0.280	0.750	0.920	2.020	5.741	1.550	0.710	12.081
NNW	0.0	0.0	0.470	0.240	0.940	2.870	3.670	1.410	0.330	9.931
TOTALS	0.0	0.090	2.940	6.131	8.951	30.123	36.504	11.171	4.090	100.000

TABLE 8 (CONTINUED)

STABILITY CLASS E

[illegible]

## STABILITY CLASS F

[illegible]

TABLE 8 (CONTINUED)

STABILITY CLASS G										
WIND SPEEDS IN METERS PER SECOND FROM THE SECTIONS 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

GROUND-LEVEL RELEASES = 0.0 PERCENT

ELEVATED RELEASES = 100.0 PERCENT

BROWNS FERRY NUCLEAR PLANT METEOROLOGICAL DATA  
ELEVATED JOINT FREQUENCY DISTRIBUTION IN PERCENT  
STACK RELEASES - SECOND QUARTER, 1978

[illegible][illegible]

TABLE 9 (Continued)

## STABILITY CLASS C

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
SSH	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

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	0.050	0.180	0.370	0.830	2.629	1.890	0.320	0.180	6.449
NNE	0.0	0.0	0.050	0.180	0.420	2.210	2.440	0.650	0.0	5.949
NE	0.0	0.0	0.180	0.460	0.370	2.120	1.570	1.060	0.0	5.759
ENE	0.0	0.0	0.050	0.460	0.420	1.200	1.010	0.510	0.0	3.649
E	0.0	0.0	0.460	0.420	0.460	1.010	0.600	0.650	0.0	2.999
ESE	0.0	0.0	0.420	0.460	0.830	1.800	0.600	0.370	0.050	4.529
SE	0.0	0.050	0.420	1.800	1.250	2.350	1.010	0.140	0.0	7.019
SSE	0.0	0.0	0.510	1.430	1.430	2.629	1.940	0.510	0.230	8.678
S	0.0	0.050	0.550	1.610	1.380	2.999	2.580	0.920	0.180	10.268
SSH	0.0	0.0	0.370	0.650	1.060	2.210	2.490	1.710	0.180	8.668
SW	0.0	0.0	0.780	1.110	1.010	2.080	1.890	0.970	0.180	8.018
WSW	0.0	0.0	0.420	0.970	1.360	1.290	1.380	0.510	0.0	5.629
W	0.0	0.0	0.230	0.510	1.150	1.520	0.830	0.740	0.460	5.439
WNW	0.0	0.0	0.230	0.420	0.920	2.629	0.970	0.880	0.740	6.789
NW	0.0	0.0	0.280	0.830	0.600	1.850	0.850	0.780	0.180	5.499
NNW	0.0	0.0	0.370	0.460	0.510	2.030	0.860	0.510	0.0	4.759
TOTALS	0.0	0.150	5.499	12.138	13.697	32.554	22.956	10.628	2.380	100.000

TABLE 9 (Continued)

## STABILITY CLASS E

[illegible]

## STABILITY CLASS F

[illegible]

TABLE 9 (Continued)

STABILITY CLASS G										
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

GROUND-LEVEL RELEASES = 0.0 PERCENT

ELEVATED RELEASES = 100.0 PERCENT

TABLE 10

GASEOUS EFFLUENT DOSES - INDIVIDUALS - FIRST QUARTER 1978External Exposure

<u>Pathway</u>	<u>Guideline*</u>	<u>Point</u>	<u>Doses (mrem)</u>
γ air dose	30	Max. Exp. <sup>1</sup>	1.77E-01
β air dose	60	Max. Exp. <sup>1</sup>	1.02E+00
Total body	15	Residence <sup>2</sup>	1.02E-01
Skin	45	Residence <sup>2</sup>	3.79E-01

Internal Exposure (Thyroid-maximum exposed organ)

Radioiodines & Particulates	45	Real Pathway <sup>3,4</sup>	6.03E-02
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Breakdown of Internal Exposures (mrem)

	<u>Infant</u>	<u>Child</u>	<u>Adult</u>
Milk Ingestion <sup>3</sup>	3.44E-02	1.43E-02	4.82E-03
Meat Ingestion <sup>4</sup>	0.0	7.44E-04	7.34E-04
Veg. Ingestion <sup>3</sup>	0.0	1.22E-02	8.27E-03
Inhalation <sup>3</sup>	3.28E-04	5.42E-04	3.39E-04
External <sup>3</sup>	2.56E-02	2.56E-02	2.56E-02
Total	6.03E-02	5.34E-02	3.98E-02

\* Guidelines as defined by Appendix I to 10CFR50.

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, 4,880 meters, S sector.
4. Doses calculated at the site boundary, at 2,740 meters in the SSE sector.

TABLE 11

GASEOUS EFFLUENT DOSES - INDIVIDUALS - SECOND QUARTER 1978External Exposure

<u>Pathway</u>	<u>Guideline</u> *	<u>Point</u>	<u>Doses (mrem)</u>
γ air dose	30	Max. Exp. <sup>1</sup>	1.66E+00
β air dose	60	Max. Exp. <sup>1</sup>	1.01E+01
Total body	15	Residence <sup>2</sup>	9.76E-01
Skin	45	Residence <sup>2</sup>	3.79E+00

Internal Exposure (Thyroid-maximum exposed organ)

Radioiodines & Particulates	45	Real Pathway <sup>3,4</sup>	1.46E-01
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Breakdown of Internal Exposures (mrem)

	<u>Infant</u>	<u>Child</u>	<u>Adult</u>
Milk Ingestion <sup>3</sup>	4.57E-02	1.90E-02	6.47E-03
Meat Ingestion <sup>4</sup>	0.0	1.67E-03	1.80E-03
Veg. Ingestion <sup>3</sup>	0.0	1.64E-02	1.12E-02
Inhalation <sup>3</sup>	9.41E-04	1.57E-03	9.99E-04
External <sup>3</sup>	9.97E-02	9.97E-02	9.97E-02
Total	1.46E-01	1.38E-01	1.20E-01

\* Guidelines as defined by Appendix I to 10CFR50.

1. Maximum exposure point is at 1,550 meters in the N 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, 4,880 meters, S sector.

4. Doses calculated at the site boundary, 1,620 meters in the NNW sector.

TABLE 12

## GASEOUS EFFLUENT DOSES - POPULATION

## FIRST QUARTER 1978

	INFANT	CHILD	THYROID TEEN	ADULT	TOTALS	INFANT	CHILD	TOTAL BODY TEEN	ADULT	TOTALS
SUBMERSION	2.83E-03	1.77E-02	1.12E-02	5.21E-02	8.38E-02	2.83E-03	1.77E-02	1.12E-02	5.21E-02	8.38E-02
GROUND	9.57E-04	5.96E-03	3.60E-03	1.76E-02	2.83E-02	9.57E-04	5.96E-03	3.80E-03	1.76E-02	2.83E-02
INHALATION	4.38E-04	4.47E-03	1.71E-03	7.42E-03	1.40E-02	1.05E-05	1.70E-04	8.44E-05	1.97E-03	2.23E-03
COW MILK	3.71E-02	9.59E-02	2.55E-02	1.02E-01	2.60E-01	1.42E-04	5.98E-04	2.47E-04	1.38E-03	2.37E-03
BEEF INGESTION	0.0	2.61E-03	1.11E-03	7.21E-03	1.09E-02	0.0	8.54E-05	5.12E-05	4.67E-04	6.03E-04
VEG INGESTION	0.0	7.30E-03	3.14E-03	1.91E-02	2.95E-02	0.0	1.16E-04	7.66E-05	6.00E-04	7.92E-04
TOTAL MAN-REM	4.13E-02	1.34E-01	4.65E-02	2.05E-01	4.27E-01	3.94E-03	2.46E-02	1.55E-02	7.41E-02	1.18E-01

## SECOND QUARTER, 1978

	INFANT	CHILD	THYROID TEEN	ADULT	TOTALS	INFANT	CHILD	TOTAL BODY TEEN	ADULT	TOTALS
SUBMERSION	1.35E-02	8.39E-02	5.34E-02	2.47E-01	3.98E-01	1.35E-02	8.39E-02	5.34E-02	2.47E-01	3.98E-01
GROUND	1.04E-03	6.46E-03	4.11E-03	1.91E-02	3.07E-02	1.04E-03	6.46E-03	4.11E-03	1.91E-02	3.07E-02
INHALATION	1.42E-03	1.45E-02	5.54E-03	2.35E-02	4.50E-02	3.65E-05	5.85E-04	2.64E-04	7.22E-03	8.12E-03
COW MILK	1.04E-01	2.69E-01	7.15E-02	2.85E-01	7.30E-01	4.15E-04	1.55E-03	5.79E-04	3.02E-03	5.66E-03
BEEF INGESTION	0.0	5.24E-03	2.24E-03	1.46E-02	2.21E-02	0.0	2.16E-04	1.18E-04	1.07E-03	1.40E-03
VEG INGESTION	0.0	1.45E-02	6.25E-03	3.81E-02	5.89E-02	0.0	3.12E-04	1.84E-04	1.28E-03	1.77E-03
TOTAL MAN-REM	1.20E-01	3.94E-01	1.43E-01	6.28E-01	1.28E 00	1.49E-02	9.31E-02	5.86E-02	2.79E-01	4.45E-01

TABLE 13

LIQUID EFFLUENT DOSES - FIRST QUARTER 1978

	<u>Bone</u>	<u>G.I. Tract</u>	<u>Thyroid</u>	<u>Total Body</u>	<u>Skin</u>
I. Water Ingestion					
A. Maximum Individual Dose Champion Paper Company	<3.2E-4	<7.9E-4	<2.0E-3	<2.1E-4	<2.1E-4 mrem
B. Total Population Dose Tennessee River	<8.9E-3	<1.8E-2	<2.6E-2	<5.9E-3	<5.9E-3 man-rem
II. Fish Consumption					
A. Maximum Individual Dose Wheeler Lake Below Browns Ferry	<4.6E-3	<3.1E-2	<7.8E-3	<5.8E-3	<5.8E-3 mrem
B. Total Population Dose Tennessee River	<2.2E-1	<1.5E-0	<3.5E-1	<2.8E-1	<2.8E-1 man-rem
	<u>In-Water</u>		<u>Above-Water</u>		<u>Shoreline</u>
	<u>Total Body</u>	<u>Skin</u>	<u>Total Body</u>	<u>Skin</u>	<u>Total Body</u> <u>Skin</u>
III. Recreation					
A. Maximum Individual Dose Wheeler Lake below Browns Ferry	<1.4E-4	<3.0E-4	<1.4E-4	<3.0E-4	<9.9E-3   <1.2E-2 mrem
B. Total Population Dose Tennessee River	<1.1E-4	<2.3E-4	<2.9E-4	<6.1E-4	<4.8E-2   <5.7E-2 man-rem
	<u>Bone</u>	<u>G.I. Tract</u>	<u>Thyroid</u>	<u>Total Body</u>	<u>Skin</u>
IV. Total Tennessee River Population Dose	<2.8E-1	<1.6E-0	<4.2E-1	<3.3E-1	<3.4E-1 man-rem

TABLE 14

LIQUID EFFLUENT DOSES - SECOND QUARTER 1978

	<u>Bone</u>	<u>G.I. Tract</u>	<u>Thyroid</u>	<u>Total Body</u>	<u>Skin</u>
I. Water Ingestion					
A. Maximum Individual Dose Champion Paper Company	<2.2E-4	<9.4E-4	<1.6E-3	<2.4E-4	<2.4E-4 mrem
B. Total Population Dose Tennessee River	<8.4E-3	<3.1E-2	<2.0E-2	<9.3E-3	<9.3E-3 man-rem
II. Fish Consumption					
A. Maximum Individual Dose Wheeler Lake Below Browns Ferry	<8.7E-3	<5.6E-2	<1.4E-2	<1.2E-2	<1.2E-2 mrem
B. Total Population Dose Tennessee River	<4.9E-1	<3.5E-0	<7.2E-1	<6.5E-1	<6.5E-1 man-rem
	<u>In-Water</u>		<u>Above-Water</u>		<u>Shoreline</u>
	<u>Total Body</u>	<u>Skin</u>	<u>Total Body</u>	<u>Skin</u>	<u>Total Body</u> <u>Skin</u>
III. Recreation					
A. Maximum Individual Dose Wheeler Lake below Browns Ferry	<1.2E-4	<2.5E-4	<1.2E-4	<2.5E-4	<1.2E-2   <1.4E-2 mrem
B. Total Population Dose Tennessee River	<2.0E-4	<4.2E-4	<5.2E-4	<1.1E-3	<1.1E-1   <1.3E-1 man-rem
	<u>Bone</u>	<u>G.I. Tract</u>	<u>Thyroid</u>	<u>Total Body</u>	<u>Skin</u>
IV. Total Tennessee River Population Dose	<6.1E-1	<3.7E-0	<8.5E-1	<7.6E-1	<7.8E-1 man-rem