

SEMIANNUAL EFFLUENT AND WASTE DISPOSAL REPORT

July - December, 1983

Virgil C. Summer Nuclear Station
South Carolina Electric & Gas

This report is being submitted as a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the Virgil C. Summer Nuclear Station. This report satisfies the requirements in Sections 6.9.1.8 and 6.9.1.9 of Technical Specifications and 10CFR50.36(a). Also included is both a summary of the hourly meteorological data collected over the previous year and an assessment of radiation doses from plant releases.

A brief discussion of the Supplemental Information and Tables 1 through 5 is presented in Sections A through D. An evaluation of the radiological impact which operation of the Virgil C. Summer Nuclear Station has had on man is presented in Section E. Changes made to the Process Control Program are presented in Section F. A summary of the meteorological data for the previous year is presented in Section G.

A. Supplemental Information

Regulatory limits for doses and maximum permissible concentrations presented in Supplemental Information are from the Virgil C. Summer Nuclear Station Technical Specifications. Average energy (\bar{E}) is not applicable to the method for determining release rate limits for fission and activation gaseous effluents; therefore, it has been omitted.

B. Gaseous Effluents

Gaseous effluents released from ground level are summarized in Tables 1 and 2. An elevated release pathway does not exist at Virgil C. Summer Nuclear Station. Cumulative doses are discussed in Section E.

The errors for gaseous effluent totals are given as the square root of the sum of squares of counting errors and flow or volume measurement errors. A systematic error of 15% has been added to estimate total error.

C. Liquid Effluents

Liquid effluents are summarized in Tables 3 and 4. Estimated total errors are expressed as in Section B above.

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D. Solid Waste Shipments

Solid waste shipments are summarized in Table 5. The four shipments during this reporting period are described below.

DATE	WASTE TYPE
09-07-83	70 55-gallon drums and 4 B-25 boxes; all Radioactive Material-LSA.
10-07-83	1 conical bottom HIC, Type A, containing dewatered resins; Radioactive Material-LSA.
12-07-83	1 carbon steel liner containing dewatered resin and 105 55-gallon drums; all Radioactive Material-LSA.
12-14-83	1 foam lined liner containing process filters; Radioactive Material

The conservative method for curie content determination is based on contact dose rates measured around the perimeter of the respective packages. The estimated total error is determined to be the sum of a 15% systematic error and a 20% photon response error for the detector used.

E. Radiological Impact on Man

Potential doses to the maximum exposed individual in the unrestricted area were calculated using measured plant gaseous effluent and meteorological data in accordance with the Offsite Dose Calculation Manual. Included in the source term was one (1) waste gas batch release, six (6) containment purges and a continuous six month main plant vent release. The total curies released are presented in Tables 1 and 2. Air doses to an individual due to noble gas were $2.48\text{E-}3$ and $3.22\text{E-}3$ mrad for gamma and beta, respectively. The maximum organ dose attributed to the releases was $5.41\text{E-}4$ mrem. Cumulative annual doses were $1.17\text{E-}2$ mrad, $1.12\text{E-}1$ mrad and $1.87\text{E-}3$ mrem, respectively.

Measured plant liquid effluent data was used to calculate estimates of doses to individuals in accordance with the Offsite Dose Calculation Manual. The source term consisted of the isotopic contents of each of the 346 liquid effluent batch releases and a continuous Turbine Building Sump release. The total radioactivity released is described in Tables 3 and 4. The total body dose to an exposed individual due to the radioactive liquid released was $4.49\text{E-}3$ mrem. The maximum organ dose was $3.74\text{E-}2$ mrem (GI-LLI). Cumulative annual doses were $6.88\text{E-}3$ mrem and $4.51\text{E-}2$ mrem, respectively.

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Accumulated doses due to gaseous and liquid effluents and respective Technical Specification limits are summarized as follows:

Tech Spec Section	Limit	Third Quarter, 1983		Fourth Quarter, 1983	
		Actual	Percent of Limit	Actual	Percent of Limit
3.11.2.2a	5 mrad gamma/qtr. 10 mrad gamma/yr.	0.00E0 mrad	0.00E0 9.23E-2*	2.48E-3 mrad	4.95E-2 1.17E-1*
3.11.2.2a	10 mrad beta/qtr. 20 mrad beta/yr.	0.00E0 mrad	0.00E0 5.43E-1*	3.22E-3 mrad	3.22E-2 5.59E-1*
3.11.2.3a	7.5 mrem/organ/qtr. 15 mrem/organ/yr.	2.74E-4 mrem	3.60E-3 1.07E-2*	2.67E-4 mrem	3.56E-3 1.24E-2*
3.11.1.2a	1.5 mrem/qtr. 3.0 mrem/yr.	9.40E-4 mrem	6.27E-2 1.11E-1*	3.55E-3 mrem	2.36E-1 2.29E-1*
3.11.1.2a	5 mrem/organ/qtr. 10 mrem/organ/yr.	2.37E-3 mrem	4.72E-2 1.01E-1*	3.50E-2 mrem	7.0E-1 4.51E-1*

* Based on annual cumulative doses.

Radiation doses from nearby uranium fuel cycle sources were not assessed. Technical Specifications, Section 3/4.11.4, page B 3/4 11-6 establishes a five (5) mile limit beyond which doses from nearby plants are insignificant. There are no uranium fuel cycle plants within a five (5) mile radius of Virgil C. Summer Nuclear Station.

Radiation doses from radioactive effluents to members of the public due to their activities inside the site boundary were assessed in a manner different from that in the Offsite Dose Calculation Manual. Monthly thermoluminescent dosimetry data from eight (8) monitoring locations within the site boundary and ten (10) locations around the site boundary perimeter were analyzed and compared with respective pre-operational background history. Results showed that 1983 monthly dose rates did not differ significantly from the pre-operational dose rates. It was concluded that potential radiation

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doses to members of the public inside the site boundary were indistinguishable from the normal background dose resulting from a dose rate of $7.9\text{E-}3$ mrem per hour and were, therefore, insignificant.

Radiation doses from radioactive effluents to workers at the Fairfield Hydro Station were determined to be $3.4\text{E-}4$ and $4.4\text{E-}4$ mrad for gamma and beta, respectively. Annual cumulative doses were $2.67\text{E-}3$ and $2.55\text{E-}2$ mrad, respectively.

Dose rates and concentrations were below the limits specified in Supplemental Information, Section 2a, b and c during all the effluent releases.

It will be noted here that an incorrect relative concentration factor was used for determining organ dose attributed to tritium in gaseous effluents when the previous Semiannual Effluent and Waste Disposal Report was generated. Correct organ doses due to gaseous effluents are $1.33\text{E-}3$ mrem and $5.28\text{E-}4$ mrem during first and second quarters, respectively. The percent of the respective Technical Specifications, Section 3.11.2.3 organ dose limits should be changed to $1.77\text{E-}2\%$ and $8.87\text{E-}3\%$ of first quarter quarterly and annual dose limits, respectively and $7.04\text{E-}3\%$ and $1.24\text{E-}2\%$ of second quarter quarterly and annual dose limits, respectively. The values were increased by a factor of 4.1; insignificant relative to the size of the doses.

F. Process Control Program

Notice of completion of NRC review and approval of the Process Control Program, Revision 2 for the cement solidification system was received on July 12, 1983 in accordance with Facility Operating Licence No. NPF-12, Section 2C (20). There were no subsequent changes made during the reporting period.

G. Meteorology

The meteorological data for 1983 is summarized in Table 6. The data is shown as joint frequency distribution of wind direction and speed by atmospheric stability class. Table 7 provides the same information for those hours during which batch releases occurred.

The wind data used in the summary was acquired from the 10 meter level on the primary monitoring tower. Stability was determined by the 61 to 10 meter differential temperature. Due to the relatively high data recovery for the 61 to 10 meter differential temperature, use of the backup system for data tabulation was not required.

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The combined annual data recovery for wind direction, wind speed, and stability was 94.1%. There were 403 hours in which a stability class could not be determined. A major contributor to this loss was a lightning strike during an August thunderstorm.

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Supplemental Information

1. Regulatory Limits:

a. Fission and Activation Gases:

The air dose to an individual due to noble gases released in gaseous effluents shall be limited to less than or equal to 5 mrad for gamma radiation and 10 mrad for beta radiation during any calendar quarter and 10 mrad for gamma radiation and 20 mrad for beta radiation during any calendar year (Technical Specifications, Section 3.11.2.2).

b. Iodines, Particulates (half-lives > 8 days) and Tritium:

The dose to an individual from radioiodines, tritium and radioactive materials in particulate form with half-lives greater than 8 days in gaseous effluents shall be limited to less than or equal to 7.5 mrem to any organ during any calendar quarter and 15 mrem to any organ during any calendar year (Technical Specifications, Section 3.11.2.3).

c. Liquid Effluents:

The dose or dose commitment to an individual from radioactive materials in liquid effluents released shall be limited to less than or equal to 1.5 mrem to the total body and 5 mrem to any organ during any calendar quarter and 3 mrem to the total body and 10 mrem to any organ during any calendar year (Technical Specifications, Section 3.11.1.2).

2. Maximum Permissible Concentrations:

a. Fission and Activation Gases:

The dose rate in unrestricted areas due to radioactive materials released in gaseous effluents shall be limited to less than or equal to 500 mrem/year to the total body and less than or equal to 3000 mrem/year to the skin (Technical Specifications, Section 3.11.2.1).

b. Iodines, Particulates (half-lives > 8 days) and Tritium:

The dose rate in unrestricted areas due to radioactive materials in effluents should be limited to less than or equal to 1500 mrem/year to any organ (Technical Specifications, Section 3.11.2.1).

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c. Liquid Effluents:

The concentration of radioactive materials released from the site shall be limited to the concentrations specified in 10 CFR 20, Appendix B, Table II, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to $2E-4 \mu\text{Ci/ml}$ total activity (Technical Specifications, Section 3.11.1.1).

3. Average Energy:

Not Applicable

4. Measurements and Approximations of Total Radioactivity:

- a. Fission and activation gases: Gamma spectrometry (GeLi)
- b. Iodines: Gamma spectrometry (GeLi)
- c. Particulates: Gamma spectrometry (GeLi), beta proportional counting, alpha proportional counting
- d. Tritium: Liquid scintillation
- e. Liquid effluents: Gamma spectrometry (GeLi), liquid scintillation (H-3), beta proportional counting, alpha proportional counting

5. Batch Releases:

a. Liquid:

1. Number of batch releases:

146 for third quarter, 1983
200 for fourth quarter, 1983

2. Total time period for batch releases:

8458 min. for third quarter, 1983
11231 min. for fourth quarter, 1983

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3. Maximum time period for a batch release:
105 min. for third quarter, 1983
100 min. for fourth quarter, 1983
 4. Average time period for batch releases:
58 min. for third quarter, 1983
56 min. for fourth quarter, 1983
 5. Minimum time period for a batch release:
28 min. for third quarter, 1983
11 min. for fourth quarter, 1983
 6. Average stream flow during periods of release of effluent into a flowing stream:
5.39E+6 gpm for third quarter, 1983
3.00E+6 gpm for fourth quarter, 1983
- b. Gaseous:
1. Number of batch releases: 7
 2. Total time period for batch releases: 5034 min.
 3. Maximum time period for a batch release: 2550 min.
 4. Average time period for a batch release: 719 min.
 5. Minimum time period for a batch release: 30 min
6. Abnormal Releases:
- a. Liquid:
1. Number of releases: NONE
 2. Total activity released: NONE

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b. Gaseous:

1. Number of releases: NONE
2. Total activity released: NONE

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Table 1

GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

Third Quarter	Fourth Quarter	Est.Total Error, %
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A. Fission & activation gases

1. Total release	Ci	0.00E0	8.28E0	2.83E+1
2. Average release rate for period	µCi/sec	0.00E0	1.04E0	
3. Percent of technical specification limit	%	*	*	

B. Iodines

1. Total iodine-131	Ci	1.25E-5	7.49E-6	1.82E+2
2. Average release rate for period	µCi/sec	1.57E-6	9.42E-7	
3. Percent of technical specification limit	%	**	**	

C. Particulates

1. Particulates with half-lives > 8 days	Ci	1.28E-6	2.36E-5	1.07E+2
2. Average release rate for period	µCi/sec	1.61E-7	2.96E-6	
3. Percent of technical specification limit	%	**	**	
4. Gross alpha radioactivity	Ci	0.00E0	2.69E-7	

D. Tritium

1. Total release	Ci	0.00E0	1.23E-1	2.28E+1
2. Average release rate for period	µCi/sec	0.00E0	1.54E-2	
3. Percent of technical specification limit	%	**	**	

* Calculated as a percent of dose limits found in Supplemental Information, Section 1a. Third quarter values were 0.00E0% and 9.23E-2% of the quarterly and cumulative annual gamma dose limits, respectively, and 0.00E0% and 5.43E-1% of the quarterly and cumulative annual beta dose limits, respectively. Fourth quarter values were 4.95E-2% and 1.17E-1% of the quarterly and cumulative annual gamma dose limits, respectively, and 3.22E-2% and 5.59E-1% of the quarterly and cumulative annual beta dose limits, respectively.

** Calculated as a percent of dose limits found in Supplemental Information, Section 1b. The sum of these values for third quarter was 3.60E-3% and 1.07-2% of the quarterly and cumulative annual organ dose limits, respectively. The sum of these values for fourth quarter was 3.56E-3% and 1.24-2% of the quarterly and cumulative annual organ dose limits, respectively.

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Table 2

GASEOUS EFFLUENTS-GROUND-LEVEL RELEASES

Nuclides Released	Unit	Continuous Mode		Batch Mode	
		Third Quarter	Fourth Quarter	Third Quarter	Fourth Quarter

1. Fission gases

krypton-85	Ci	0.00E0	0.00E0	0.00E0	0.00E0
krypton-85m	Ci	0.00E0	0.00E0	0.00E0	0.00E0
krypton-87	Ci	0.00E0	0.00E0	0.00E0	0.00E0
krypton-88	Ci	0.00E0	0.00E0	0.00E0	0.00E0
xenon-133	Ci	0.00E0	1.51E-1	0.00E0	7.30E-1
xenon-135	Ci	0.00E0	7.26E0	0.00E0	1.04E-1
xenon-135m	Ci	0.00E0	0.00E0	0.00E0	0.00E0
xenon-138	Ci	0.00E0	0.00E0	0.00E0	0.00E0
Others (specify) Ar-41	Ci	0.00E0	1.24E-2	0.00E0	1.91E-2
	Ci	. E	. E	. E	. E
	Ci	. E	. E	. E	. E
unidentified	Ci	0.00E0	0.00E0	0.00E0	0.00E0
Total for period	Ci	0.00E0	7.42E0	0.00E0	8.54E-1

2. Iodines

iodine-131	Ci	1.25E-5	7.49E-6	0.00E0	0.00E0
iodine-133	Ci	8.47E-5	2.92E-5	0.00E0	0.00E0
iodine-135	Ci	1.94E-5	0.00E0	0.00E0	0.00E0
Total for period	Ci	1.17E-4	3.67E-5	0.00E0	0.00E0

3. Particulates

strontium-89	Ci	0.00E0	0.00E0	0.00E0	0.00E0
strontium-90	Ci	0.00E0	0.00E0	0.00E0	0.00E0
cesium-134	Ci	0.00E0	0.00E0	0.00E0	0.00E0
cesium-137	Ci	0.00E0	0.00E0	0.00E0	0.00E0
barium-lanthanum-140	Ci	0.00E0	0.00E0	0.00E0	0.00E0
Others (specify) Co-58	Ci	1.28E-6	2.22E-5	0.00E0	0.00E0
Ce-141	Ci	0.00E0	2.77E-7	0.00E0	0.00E0
Fe-59	Ci	0.00E0	1.08E-6	0.00E0	0.00E0
unidentified	Ci	0.00E0	0.00E0	0.00E0	0.00E0
Total for period	Ci	1.28E-6	2.36E-5	0.00E0	0.00E0

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Table 3

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

Unit	Third Quarter	Fourth Quarter	Est.Total Error, %
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A. Fission & activation products

1. Total release (not including tritium, gases, alpha)	Ci	6.12E-2	9.77E-1	2.34E+1
2. Average diluted concentration during period	µCi/ml	1.46E-10	2.84E-9	
3. Percent of applicable limit	%	*	*	

B. Tritium

1. Total release	Ci	7.44E+1	8.65E+1	1.80E+1
2. Average diluted concentration during period	µCi/ml	1.78E-7	2.51E-7	
3. Percent of applicable limit	%	*	*	

C. Dissolved and entrained gases

1. Total release	Ci	5.19E-3	1.67E-2	7.48E+1
2. Average diluted concentration during period	µCi/ml	1.24E-11	4.85E-11	
3. Percent of applicable limit	%	*	*	

D. Gross alpha radioactivity

1. Total release	Ci	0.00E0	0.00E0	3.81E+1
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E. Volume of waste released(prior to dilution)	liters	8.44E+7	9.48E+7	3.00E0
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F. Volume of dilution water used during period	liters	4.19E+11	3.44E+11	4.30E0
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* See following page.

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Table 3

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

- * Calculated as a percent of dose limits found in Supplemental Information, Section 1c. The sum of these values for third quarter was $6.27\text{E-}2\%$ and $1.11\text{E-}1\%$ of the respective quarterly and cumulative annual whole body dose limits and $4.72\text{E-}2\%$ and $1.01\text{E-}1\%$ of the respective quarterly and cumulative annual organ dose limits. The sum of these values for fourth quarter was $2.36\text{E-}1\%$ and $2.29\text{E-}1\%$ of the respective quarterly and cumulative annual whole body dose limits and $7.0\text{E-}1\%$ and $4.51\text{E-}1\%$ of the respective quarterly and cumulative annual organ dose limits. Dose to the GI-LLI was the most limiting organ dose for third and fourth quarters.

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Table 4

LIQUID EFFLUENTS

Nuclides Released	Unit	Continuous Mode		Batch Mode	
		Third Quarter	Fourth Quarter	Third Quarter	Fourth Quarter
strontium-89	Ci	0.00E0	0.00E0	3.56E-5	7.32E-6
strontium-90	Ci	0.00E0	3.05E-4	1.19E-5	2.19E-6
cesium-134	Ci	0.00E0	0.00E0	0.00E0	3.63E-6
cesium-137	Ci	0.00E0	0.00E0	1.19E-4	6.36E-4
iodine-131	Ci	0.00E0	0.00E0	2.19E-3	3.62E-4
cobalt-58	Ci	0.00E0	1.84E-4	1.74E-2	6.60E-1
cobalt-60	Ci	0.00E0	0.00E0	5.53E-3	7.37E-2
iron-59	Ci	0.00E0	0.00E0	1.85E-4	2.27E-2
zinc-65	Ci	0.00E0	0.00E0	2.31E-5	1.71E-4
manganese-54	Ci	0.00E0	0.00E0	1.57E-3	2.47E-2
chromium-51	Ci	0.00E0	0.00E0	1.62E-3	1.52E-1
zirconium-niobium-95	Ci	0.00E0	0.00E0	9.95E-4	1.51E-2
molybdenum-99	Ci	0.00E0	0.00E0	0.00E0	0.00E0
technetium-99m	Ci	0.00E0	0.00E0	1.73E-4	8.98E-5
barium-lanthanum-140	Ci	0.00E0	0.00E0	7.27E-4	1.52E-3
cerium-141	Ci	0.00E0	0.00E0	0.00E0	1.60E-5
Other (specify) I-133	Ci	0.00E0	0.00E0	3.01E-3	5.01E-4
Ce-144	Ci	0.00E0	0.00E0	5.83E-5	0.00E0
W-187	Ci	0.00E0	0.00E0	6.30E-4	1.34E-4
Na-24	Ci	3.12E-4	0.00E0	6.69E-3	6.26E-3
Zr-97	Ci	0.00E0	0.00E0	1.30E-6	0.00E0
* As-76	Ci	0.00E0	0.00E0	0.00E0	1.22E-5
I-132	Ci	0.00E0	0.00E0	9.88E-6	0.00E0
I-135	Ci	0.00E0	0.00E0	3.76E-4	9.41E-5
* Sb-124	Ci	0.00E0	0.00E0	9.89E-5	4.75E-3
H-3	Ci	0.00E0	0.00E0	7.44E+1	8.65E+1
Fe-55	Ci	1.05E-2	8.99E-4	8.58E-3	7.29E-3
Cu-64	Ci	0.00E0	0.00E0	3.14E-4	0.00E0
* Be-7	Ci	0.00E0	0.00E0	6.04E-5	3.26E-5
* Ar-41	Ci	0.00E0	0.00E0	4.56E-6	0.00E0
* Co-60m	Ci	0.00E0	0.00E0	0.00E0	1.53E-4
Cs-136	Ci	0.00E0	0.00E0	0.00E0	6.55E-5
* Ce-131	Ci	0.00E0	0.00E0	0.00E0	4.61E-5
* As-70	Ci	0.00E0	0.00E0	0.00E0	5.42E-6
* Co-57	Ci	0.00E0	0.00E0	0.00E0	8.69E-4
* Ni-56	Ci	0.00E0	0.00E0	0.00E0	21E-5
Mn-56	Ci	0.00E0	0.00E0	0.00E0	3.86E-6

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Table 4 (Continued)

LIQUID EFFLUENTS

Nuclides Released	Unit	Continuous Mode		Batch	Mode
		Third Quarter	Fourth Quarter	Third Quarter	Fourth Quarter
Other (specify) * Mn-58	Ci	0.00E0	0.00E0	0.00E0	7.95E-9
Ni-65	Ci	0.00E0	0.00E0	0.00E0	9.38E-6
* Sb-125	Ci	0.00E0	0.00E0	0.00E0	2.60E-3
* La-132	Ci	0.00E0	0.00E0	0.00E0	5.78E-4
* Sn-113	Ci	0.00E0	0.00E0	0.00E0	3.70E-5
* Sc-46	Ci	0.00E0	0.00E0	0.00E0	1.93E-5

Total for period (above)		Ci	1.08E-2	1.39E-3	7.44E+1	8.75E+1
xenon-133		Ci	0.00E0	0.00E0	2.75E-3	1.15E-2
xenon-135		Ci	0.00E0	0.00E0	2.44E-3	4.27E-3
Other (specify)	Kr-81	Ci	0.00E0	0.00E0	0.00E0	3.98E-5
	Kr-85m	Ci	0.00E0	0.00E0	0.00E0	7.36E-7
	Kr-90	Ci	0.00E0	0.00E0	0.00E0	2.56E-5
	Kr-88	Ci	0.00E0	0.00E0	0.00E0	8.64E-4

* Dose factors for these trace isotopes are not included in the ODCM or Regulatory Guide 1.109; consequently, the cumulative dose attributed to these isotopes is not reported. The quantity of these isotopes comprised only 2.2E-4% and 1.04E-2% of the total curies released during third and fourth quarters, respectively.

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Table 5

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. Solid Waste Shipped Offsite for Burial or Disposal (Not irradiated fuel)

1. Type of waste	Unit	6-month Period	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m ³ Ci	1.13E+1 7.97E-1	3.50E+1
b. Dry compressible waste, contaminated equip., etc.	m ³ Ci	4.79E+1 2.62E-1	3.50E+1
c. Irradiated components, control rods, etc.	m ³ Ci	0.00E0 0.00E0	0.00E0
d. Other (describe) Process Filters	m ³ Ci	2.38E0 1.24E+1	3.50E+1

2. Estimate of major nuclide composition (by type of waste)

a. H-3	%	6.78E+1
Co-60	%	1.76E+1
Co-58	%	1.28E+1
Mn-54, Cr-51, Cs-137, Nb-95, Zr-95, Co-57, Fe-59, La-140, I-131	%	1.76E0
b. Co-58	%	3.48E+1
Cr-51	%	1.60E+1
Co-60	%	2.18E+1
Zr-95, Nb-95, Mn-54, Fe-59	%	2.70E+1
In-113, Sb-124, Ce-144, La-140, TRU's	%	4.17E-1
c. NONE	%	0.00E0
d. Co-58	%	5.25E+1
Cr-51	%	2.07E+1
Nb-95, Zr-95, Ba-140, Co-60, Mn-54, Fe-59	%	2.65E+1
Ce-144, Ni-56, Zn-65, TRU's	%	3.0E-1

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
4	Truck	Barnwell, S.C.

B. Irradiated Fuel Shipments (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
NONE		

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: U. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 1- 1 00:00 to 1983- 3-31 23:00

Stability Class: A delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	1	0	0	3	4	21.14
NNE	0	0	2	0	0	0	2	11.00
NE	0	0	2	0	0	0	2	9.58
ENE	0	0	1	0	0	0	1	10.10
E	2	0	1	0	0	0	3	5.25
ESE	0	0	1	1	0	0	2	13.20
SE	0	0	1	0	0	0	1	11.30
SSE	0	1	3	1	0	0	5	10.53
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	1	1	0	0	0	0	2	4.95
W	0	0	0	0	0	0	0	0.00
WNW	0	2	0	0	0	0	2	5.36
NW	2	0	0	0	0	0	2	3.16
NNW	0	0	0	0	0	0	0	0.00
Total	5	4	12	2	0	3	26	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 19
Hours of No Stability Class : 27
Total hours of observation : 2160

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 1- 1 00:00 to 1983- 3-31 23:00

Stability Class: B delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	3	2	1	1	7	15.84
NNF	0	1	1	4	0	1	7	14.97
NE	0	0	6	0	1	1	8	13.78
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	1	0	0	0	1	10.30
S	0	1	0	0	0	0	1	4.90
SSW	0	1	1	0	0	0	2	7.24
SW	0	1	0	0	0	0	1	4.29
WSW	0	0	1	0	0	0	1	8.30
W	0	1	0	0	0	0	1	7.71
WNW	1	0	0	0	0	0	1	3.97
NW	0	0	1	0	0	0	1	8.88
NNW	0	0	0	0	0	0	0	0.00
Total	1	5	14	6	2	3	31	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 19
Hours of No Stability Class : 27
Total hours of observation : 2160

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 1- 1 00:00 to 1983- 3-31 23:00

Stability Class: C delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	1	4	3	0	0	8	12.61
NNF	0	2	2	10	0	2	16	14.42
NE	0	1	6	6	10	3	26	17.34
ENE	0	2	1	1	2	0	6	12.58
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	2	0	0	2	17.20
SE	0	1	1	2	0	0	4	13.10
SSE	0	0	2	2	0	0	4	14.25
S	0	0	0	2	0	0	2	14.00
SSW	0	1	0	0	0	0	1	6.16
SW	0	0	0	0	0	0	0	0.00
WSW	2	5	0	0	0	0	7	5.11
W	2	0	0	0	0	0	2	3.63
WNW	1	0	0	0	0	0	1	3.92
NW	0	4	1	0	0	0	5	6.22
NNW	2	0	1	1	0	0	4	7.28
Total	7	17	18	29	12	5	88	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 19
 Hours of No Stability Class : 27
 Total hours of observation : 2160

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 1- 1 00:00 to 1983- 3-31 23:00

Stability Class: D delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	7	8	23	23	6	1	68	12.31
NNE	7	9	24	59	7	3	109	13.55
NE	3	24	68	68	31	2	196	13.26
ENE	4	14	43	8	2	0	71	9.99
E	0	7	2	0	0	0	9	6.25
ESE	1	6	10	8	0	0	25	10.49
SE	2	6	15	8	0	0	31	10.09
SSE	1	11	13	3	0	0	28	8.86
S	2	6	15	3	0	0	26	9.43
SSW	4	3	11	4	0	0	22	9.10
SW	4	13	18	1	0	0	36	7.98
WSW	7	14	25	28	0	0	74	10.62
W	3	19	26	5	0	0	53	8.71
WNW	4	14	26	10	0	0	54	9.30
NW	4	8	20	15	2	0	49	11.14
NNW	5	9	12	16	4	0	46	11.18
Total	58	171	351	259	52	6	897	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 12
Hours of Missing Data for All : 19
Hours of No Stability Class : 27
Total hours of observation : 2160

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 1- 1 00:00 to 1983- 3-31 23:00

Stability Class: E delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	7	26	8	4	5	0	50	8.10
NNE	8	13	14	1	0	0	36	7.32
NE	6	20	15	10	2	0	53	8.99
ENE	4	18	20	1	0	0	43	7.80
E	5	21	10	2	0	0	38	6.94
ESE	4	14	9	0	0	0	27	7.32
SE	6	14	4	6	1	0	31	8.32
SSE	6	10	11	6	0	0	27	6.57
S	6	3	10	3	0	0	22	8.43
SSW	4	20	9	4	0	0	37	7.28
SW	3	32	10	0	0	0	45	7.01
WSW	5	29	35	2	0	0	71	8.12
W	6	21	18	1	0	0	46	7.21
WNW	12	22	12	0	0	0	46	6.30
NW	4	20	10	2	0	0	36	7.10
NNW	4	8	15	2	0	0	29	8.39
Total	90	291	210	38	8	0	637	
Hours of Calm : 2								
Hours of Varying Wind Direction : 0								
Hours of Missing Data : 6								
Hours of Missing Data for All : 19								
Hours of No Stability Class : 27								
Total hours of observation : 2160								

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 1- 1 00:00 to 1983- 3-31 23:00

Stability Class: F delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	3	3	2	4	0	0	12	8.75
NNE	3	5	0	0	0	0	8	4.57
NE	5	4	0	0	0	0	9	4.22
ENE	7	4	2	0	0	0	13	5.28
E	7	13	1	0	0	0	21	5.04
ESE	3	6	1	0	0	0	10	5.24
SE	4	18	0	0	0	0	22	5.70
SSE	0	10	2	0	0	0	12	6.33
S	3	11	0	0	0	0	14	5.35
SSW	6	11	0	0	0	0	17	4.58
SW	6	6	0	0	0	0	12	4.54
WSW	6	14	1	0	0	0	21	4.68
W	10	7	0	0	0	0	17	3.58
WNW	6	4	0	0	0	0	10	3.68
NW	8	7	0	0	0	0	15	4.49
NNW	2	2	0	1	0	0	5	6.79
Total	79	125	9	5	0	0	218	
Hours of Calm							:	0
Hours of Varying Wind Direction							:	0
Hours of Missing Data							:	0
Hours of Missing Data for All							:	19
Hours of No Stability Class							:	27
Total hours of observation							:	2160

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 1- 1 00:00 to 1983- 3-31 23:00

Stability Class: G delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	3	1	0	0	0	0	4	3.69
NNE	2	1	0	0	0	0	3	2.77
NE	5	3	0	0	0	0	8	3.68
ENE	8	4	0	0	0	0	12	3.29
E	6	1	0	0	0	0	7	2.99
ESE	8	2	0	0	0	0	10	3.15
SE	7	15	0	0	0	0	22	4.95
SSF	10	16	0	0	0	0	26	4.43
S	3	13	0	0	0	0	16	5.32
SSW	7	3	0	0	0	0	10	3.30
SW	9	11	0	0	0	0	20	3.82
WSW	12	10	0	0	0	0	22	3.79
W	14	11	0	0	0	0	25	3.98
WNW	9	3	0	0	0	0	12	3.58
NW	10	3	0	0	0	0	13	3.34
NNW	2	0	0	0	0	0	2	2.11
Total	115	97	0	0	0	0	212	

Hours of Calm : 4
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 19
 Hours of No Stability Class : 27
 Total hours of observation : 2160

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 1- 1 00:00 to 1983- 3-31 23:00

Stability Class: All delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	20	39	44	37	12	5	157	10.88
NNE	20	31	45	78	7	6	187	11.87
NE	19	52	97	84	44	6	302	12.33
ENE	23	42	67	10	4	0	146	8.48
E	20	42	14	2	0	0	78	5.93
ESE	16	28	21	11	0	0	76	7.95
SE	19	54	21	16	1	0	111	7.82
SSE	17	49	32	6	0	0	104	7.15
S	14	34	25	8	0	0	81	7.70
SSW	21	39	21	8	0	0	89	6.75
SW	22	65	28	1	0	0	116	6.46
WSW	34	75	62	30	0	0	201	8.03
W	36	60	46	6	0	0	148	6.72
WNW	34	46	38	10	0	0	128	7.04
NW	28	42	35	17	2	0	124	7.96
NNW	15	19	29	20	4	0	87	9.62
Total	358	717	625	344	74	17	2135	

Hours of Calm : 6
 Hours of Varying Wind Direction : 0
 Hours of Missing Data for All : 19
 Hours of No Stability Class : 27
 Total hours of observation : 2160

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITF: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 4- 1 00:00 to 1983- 6-30 23:00

Stability Class: A delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	3	1	0	0	0	0	4	3.33
NNE	2	2	0	0	0	0	4	4.26
NE	0	5	0	0	0	0	5	6.19
ENE	0	0	3	0	0	0	3	8.69
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	1	1	0	0	0	0	2	5.31
S	0	2	0	0	0	0	2	4.89
SSW	1	2	0	0	0	0	3	4.86
SW	0	1	1	0	0	0	2	9.25
WSW	0	0	0	0	0	0	0	0.00
W	1	0	1	0	0	0	2	6.68
WNW	0	0	0	0	0	0	0	0.00
NW	1	0	0	0	0	0	1	3.00
NNW	2	4	0	0	0	0	6	4.59
Total	11	18	5	0	0	0	34	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 34
Hours of No Stability Class : 60
Total hours of observation : 2184

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 4- 1 00:00 to 1983- 6-30 23:00

Stability Class: B delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	5	0	0	0	0	5	5.37
NNE	1	4	0	0	0	0	5	5.16
NE	0	2	0	0	0	0	2	7.74
ENE	0	3	4	0	0	0	7	8.35
E	0	2	0	0	0	0	2	5.77
ESE	0	1	0	0	0	0	1	5.71
SE	0	0	3	1	0	0	4	11.44
SSE	0	0	0	0	0	1	1	83.00
S	0	4	0	0	0	0	4	5.81
SSW	0	0	1	1	0	0	2	11.37
SW	1	1	1	0	0	0	3	6.61
WSW	1	2	1	0	0	0	4	5.83
W	0	1	0	0	0	0	1	5.88
WNW	1	4	0	0	0	0	5	5.15
NW	0	1	0	0	0	0	1	5.64
NNW	4	2	0	0	0	0	6	3.41
Total	8	32	10	2	0	1	53	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 2
Hours of Missing Data for All : 34
Hours of No Stability Class : 60
Total hours of observation : 2184

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 4- 1 00:00 to 1983- 6-30 23:00

Stability Class: C delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	5	4	0	1	0	0	10	5.56
NNE	3	3	0	0	0	0	6	4.55
NE	0	7	6	2	0	0	15	8.45
ENE	0	3	7	6	0	0	16	10.71
E	0	2	1	0	0	0	3	6.62
ESE	0	1	0	0	0	0	1	7.86
SE	0	3	0	1	0	0	4	8.17
SSE	0	3	4	1	0	0	8	8.60
S	1	1	6	0	0	0	8	9.92
SSW	0	7	7	0	0	0	14	8.20
SW	2	10	9	3	0	0	24	8.33
WSW	1	11	3	1	0	0	16	6.84
W	1	0	3	0	0	0	4	7.94
WNW	4	3	1	0	0	0	8	4.48
NW	1	1	0	2	0	0	4	10.48
NNW	4	4	2	1	0	0	11	6.32
Total	22	63	49	18	0	0	152	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 1
Hours of Missing Data for All : 34
Hours of No Stability Class : 60
Total hours of observation : 2184

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 4- 1 00:00 to 1983- 6-30 23:00

Stability Class: D delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	12	24	11	8	4	0	59	8.18
NNE	8	22	10	4	1	0	45	7.37
NE	1	17	30	36	3	0	87	11.77
ENE	3	10	33	10	0	0	56	9.78
E	1	14	2	0	0	0	17	6.56
ESE	1	11	8	5	0	0	25	9.32
SE	2	11	22	9	1	0	45	9.75
SSE	1	28	27	2	0	0	58	8.31
S	4	42	54	11	2	0	113	9.07
SSW	6	31	43	0	0	0	80	7.98
SW	16	27	30	8	1	0	82	8.04
WSW	6	30	28	8	0	0	72	8.36
W	6	23	32	9	0	0	70	8.94
WNW	3	12	11	1	0	0	27	7.48
NW	4	10	12	2	0	0	28	7.72
NNW	6	8	7	2	0	0	23	6.98
Total	80	320	360	115	12	0	887	

Hours of Calm : 2
Hours of Varying Wind Direction : 0
Hours of Missing Data : 17
Hours of Missing Data for All : 34
Hours of No Stability Class : 61
Total hours of observation : 2184

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 4- 1 00:00 to 1983- 6-30 23:00

Stability Class: F delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	2	15	5	0	0	0	22	6.56
NNE	7	20	8	2	0	0	37	6.81
NE	0	10	11	1	0	0	22	8.32
ENE	3	15	10	1	0	0	29	7.42
E	5	19	1	0	0	0	25	5.30
ESF	4	13	10	1	1	0	29	7.56
SE	8	23	12	4	0	0	47	7.21
SSE	11	25	24	2	0	0	62	7.20
S	9	32	36	1	0	1	79	8.56
SSW	9	32	7	2	0	0	50	6.21
SW	9	29	3	0	0	0	41	5.55
WSW	10	18	14	0	0	0	42	6.19
W	16	13	4	0	0	0	33	5.01
WNW	10	15	5	1	0	0	31	5.84
NW	6	8	11	1	0	0	26	6.75
NNW	2	7	4	1	0	0	14	7.19
Total	111	294	165	17	1	1	589	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 6
Hours of Missing Data for All : 34
Hours of No Stability Class : 60
Total hours of observation : 2184

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 4- 1 00:00 to 1983- 6-30 23:00

Stability Class: F delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	2	0	0	0	0	2	6.60
NNE	1	4	1	0	0	0	6	6.37
NE	3	0	0	0	0	0	3	2.61
ENE	2	4	0	0	0	0	6	5.01
E	3	15	2	0	0	0	20	6.03
ESE	9	5	0	0	0	0	14	3.80
SE	4	22	4	0	0	0	30	6.04
SSE	7	1	4	0	0	1	33	7.70
S	8	10	3	0	0	0	21	5.28
SSW	11	14	1	0	0	0	26	4.87
SW	10	7	0	0	0	0	17	3.85
WSW	6	6	0	0	0	0	12	4.19
W	7	5	0	0	0	0	12	3.86
WNW	8	8	0	0	0	0	16	4.16
NW	3	7	0	0	0	0	10	5.29
NNW	2	3	0	0	0	0	5	4.34
Total	84	133	15	0	0	1	233	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 1
Hours of Missing Data for All : 34
Hours of No Stability Class : 60
Total hours of observation : 2184

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 4- 1 00:00 to 1983- 6-30 23:00

Stability Class: G $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	1	0	0	0	0	0	1	1.87
NE	0	0	0	0	0	0	0	0.00
ENE	2	1	0	0	0	0	3	3.78
E	2	0	0	0	0	0	2	3.16
ESE	1	2	0	0	0	0	3	4.74
SE	2	15	0	0	0	0	17	5.78
SSE	6	3	0	0	0	0	9	4.21
S	2	9	0	0	0	0	11	4.82
SSW	12	2	0	0	0	0	14	3.32
SW	17	5	0	0	0	0	22	3.37
WSW	6	15	0	0	0	0	21	4.45
W	20	9	0	0	0	0	29	3.62
WNW	7	3	0	0	0	0	10	3.89
NW	2	1	0	0	0	0	3	3.06
NNW	1	0	0	0	0	0	1	2.43
Total	81	65	0	0	0	0	146	

Hours of Calm : 1
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 34
 Hours of No Stability Class : 60
 Total hours of observation : 2184

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 4- 1 00:00 to 1983- 6-30 23:00

Stability Class:ALL delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	23	51	16	9	4	0	103	7.18
NNE	24	56	20	6	1	0	107	6.65
NE	4	41	47	39	3	0	134	10.36
ENE	10	36	57	17	0	0	120	8.84
E	12	54	7	0	0	0	73	5.83
ESE	16	35	18	6	1	0	76	7.22
SE	16	77	41	15	1	0	150	7.71
SSE	28	87	65	5	0	2	187	7.92
S	24	101	99	12	2	1	239	8.30
SSW	39	89	59	3	0	0	190	6.73
SW	55	84	44	11	1	0	195	6.59
WSW	30	85	49	9	0	0	173	6.85
W	51	51	43	9	0	0	154	6.64
WNW	34	47	23	3	0	0	107	5.91
NW	17	28	23	5	0	0	73	6.91
NNW	21	28	13	4	0	0	66	6.10
Total	404	950	624	153	13	3	2147	
Hours of Calm : 3								
Hours of Varying Wind Direction : 0								
Hours of Missing Data for All : 34								
Hours of No Stability Class : 60								
Total hours of observation : 2184								

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 7- 1 00:00 to 1983- 9-30 23:00

Stability Class: A delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	2	3	0	0	0	0	5	4.55
NNF	1	2	0	1	4	0	8	13.65
NE	2	8	1	0	0	0	11	5.16
ENE	0	4	0	0	0	0	4	5.48
E	0	2	0	0	0	0	2	5.98
ESF	0	1	0	0	0	0	1	5.46
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	2	0	0	0	0	0	2	2.97
WSW	0	0	0	0	0	0	0	0.00
W	1	1	0	0	0	0	2	3.79
WNW	0	1	0	0	0	0	1	4.81
NW	0	3	0	0	0	0	3	6.27
NNW	2	2	0	0	0	0	4	4.95
Total	10	27	1	1	4	0	43	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 2
Hours of Missing Data for All : 98
Hours of No Stability Class : 262
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 7- 1 00:00 to 1983- 9-30 23:00

Stability Class: B $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- (4	4- (8	8- (13	13- (19	19- 24	>24		
N	3	3	0	0	0	0	6	4.12
NNE	2	2	1	1	0	0	6	6.57
NE	3	7	1	4	0	0	15	7.56
ENE	1	9	4	0	0	0	14	7.20
E	0	6	0	0	0	0	6	6.92
ESE	1	1	0	0	0	0	2	4.74
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	1	0	0	0	0	0	1	3.04
SW	1	2	0	0	0	0	3	5.04
WSW	0	5	0	0	0	0	5	5.10
W	0	1	0	0	0	0	1	6.41
WNW	1	0	0	0	0	0	1	2.71
NW	0	3	0	0	0	0	3	6.26
NNW	0	3	0	0	0	0	3	4.62
Total	13	42	6	5	0	0	66	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 98
 Hours of No Stability Class : 262
 Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 7- 1 00:00 to 1983- 9-30 23:00

Stability Class: C delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	6	6	1	0	0	0	13	4.26
NNE	5	5	1	2	1	0	14	7.81
NE	1	5	6	6	1	0	19	10.98
ENE	1	4	7	3	1	0	16	10.95
E	2	4	2	0	0	0	8	6.45
ESE	1	5	2	0	0	0	8	6.39
SE	0	0	0	0	0	0	0	0.00
SSE	1	0	0	0	0	0	1	3.61
S	0	0	2	0	0	0	2	9.54
SSW	1	3	2	0	0	0	6	7.46
SW	1	6	1	0	0	0	8	6.64
WSW	0	11	0	0	0	0	11	5.35
W	0	5	1	0	0	0	6	5.91
WNW	1	4	0	1	0	0	6	6.72
NW	2	3	4	0	0	0	9	6.23
NNW	4	10	1	0	0	0	15	4.75
Total	26	71	30	12	3	0	142	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 2
Hours of Missing Data for All : 98
Hours of No Stability Class : 262
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 7- 1 00:00 to 1983- 9-30 23:00

Stability Class: D delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	10	26	11	2	0	0	49	6.41
NNE	12	27	33	20	4	0	96	9.67
NE	7	31	56	38	4	0	136	10.58
ENE	3	22	61	30	0	1	117	11.09
E	1	28	27	3	0	0	59	7.99
ESE	2	26	3	0	0	0	31	6.10
SE	3	22	12	1	0	0	38	7.08
SSE	8	20	9	0	0	0	37	6.21
S	10	32	12	0	0	0	54	6.47
SSW	10	38	16	0	0	0	64	6.52
SW	14	45	6	1	0	0	66	5.83
WSW	9	60	11	0	0	0	80	6.08
W	6	21	5	1	0	0	33	6.31
WNW	3	16	3	0	0	0	22	5.85
NW	6	13	10	0	0	0	29	6.41
NNW	7	17	9	2	0	0	35	6.49
Total	111	444	284	98	8	1	946	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 6
Hours of Missing Data for All : 98
Hours of No Stability Class : 262
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 7- 1 00:00 to 1983- 9-30 23:00

Stability Class: E delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	2	6	3	0	0	0	11	6.04
NNE	2	4	3	1	0	1	11	9.27
NE	2	8	4	0	0	0	14	6.92
ENE	3	4	9	0	0	0	16	7.39
E	0	18	11	0	0	0	29	7.37
ESE	4	12	2	0	0	0	18	5.63
SE	7	18	3	0	0	0	28	5.34
SSE	27	29	3	0	0	0	59	4.55
S	28	33	2	0	0	0	63	4.63
SSW	25	40	5	0	0	0	70	4.86
SW	23	39	2	0	0	0	64	4.55
WSW	17	21	0	0	0	0	38	4.21
W	12	6	0	0	0	0	18	3.49
WNW	7	5	0	0	0	0	12	4.12
NW	0	12	1	0	0	0	13	5.27
NNW	1	4	0	0	0	0	5	5.66
Total	160	259	48	1	0	1	469	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 10
Hours of Missing Data for All : 98
Hours of No Stability Class : 262
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 7- 1 00:00 to 1983- 9-30 23:00

Stability Class: F delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	1	0	0	0	1	9.08
NNE	1	1	0	0	0	0	2	4.83
NE	0	0	0	0	0	0	0	0.00
ENE	0	1	0	0	0	0	1	5.84
E	1	1	0	0	0	0	2	3.75
ESE	2	2	0	0	0	0	4	4.47
SE	4	15	3	0	0	0	22	6.13
SSE	10	27	1	0	0	0	38	5.11
S	10	14	0	0	0	0	24	4.23
SSW	10	6	0	0	0	0	16	3.66
SW	12	4	0	0	0	0	16	3.35
WSW	14	1	0	1	0	0	16	4.05
W	14	8	0	0	0	0	22	3.84
WNW	11	6	0	0	0	0	17	3.72
NW	2	5	0	0	0	0	7	4.59
NNW	0	2	0	0	0	0	2	6.77
Total	91	93	5	1	0	0	190	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 4
Hours of Missing Data for All : 98
Hours of No Stability Class : 262
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 7- 1 00:00 to 1983- 9-30 23:00

Stability Class: G delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	1	1	0	0	0	0	2	4.03
SSF	1	4	0	0	0	0	5	5.05
S	1	1	0	1	0	0	3	7.18
SSW	6	1	0	0	0	0	7	3.34
SW	7	0	0	0	0	0	7	3.08
WSW	12	3	0	0	0	0	15	3.24
W	13	3	0	0	0	0	16	3.56
WNW	4	4	0	0	0	0	8	4.03
NW	0	2	0	0	0	0	2	5.63
NNW	0	0	0	0	0	0	0	0.00
Total	45	19	0	1	0	0	65	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 1
Hours of Missing Data for All : 98
Hours of No Stability Class : 262
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983- 7- 1 00:00 to 1983- 9-30 23:00

Stability Class: ALL $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.25- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	24	49	17	2	0	0	92	5.81
NNE	26	48	40	25	9	1	149	9.15
NE	15	61	74	54	5	0	209	9.98
ENE	8	47	86	33	1	1	176	10.20
E	6	61	41	3	0	0	111	7.38
ESE	10	48	9	0	0	0	67	5.97
SE	15	59	18	1	0	0	93	6.20
SSE	47	81	13	0	0	0	141	5.15
S	49	89	18	1	0	0	157	5.41
SSW	59	106	28	0	0	0	193	5.49
SW	63	111	14	1	0	0	189	5.16
WSW	63	109	13	1	0	0	186	5.04
W	50	53	12	1	0	0	116	4.93
WNW	30	42	7	1	0	0	80	5.02
NW	10	45	20	0	0	0	75	6.36
NNW	16	43	15	2	0	0	76	6.04
Total	491	1052	425	125	15	2	2110	
Hours of Calm								0
Hours of Varying Wind Direction								0
Hours of Missing Data for All								98
Hours of No Stability Class								262
Total hours of observation								2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983-10- 1 00:00 to 1983-12-31 23:00

Stability Class: A delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	1	1	0	0	2	14.60
NNE	0	1	2	2	0	0	5	11.34
NE	0	0	0	1	0	0	1	13.40
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	3	0	0	0	0	3	6.14
SSE	0	1	2	0	0	0	3	9.38
S	0	0	4	0	0	0	4	11.43
SSW	1	0	2	0	0	0	3	7.32
SW	1	2	1	0	0	0	4	6.20
WSW	2	3	1	0	0	0	6	6.49
W	2	2	1	1	0	0	6	7.50
WNW	0	2	0	0	0	0	2	5.19
NW	0	1	0	1	1	0	3	14.41
NNW	0	0	1	1	0	3	5	21.68
Total	6	15	15	7	1	3	47	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 38
Hours of No Stability Class : 54
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983-10- 1 00:00 to 1983-12-31 23:00

Stability Class: R delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	1	0	1	20.60
NNE	0	1	1	0	1	0	3	13.33
NE	0	1	6	5	0	0	12	11.19
ENE	0	1	2	2	0	0	5	11.17
E	1	0	0	0	0	0	1	3.65
ESE	0	1	0	0	0	0	1	4.41
SE	0	1	1	0	0	0	2	7.89
SSE	0	1	5	0	0	0	6	9.68
S	0	1	0	0	0	0	1	4.21
SSW	1	2	0	0	0	0	3	5.28
SW	0	1	0	0	0	0	1	7.09
WSW	0	3	0	0	0	0	3	5.32
W	1	2	0	0	0	0	3	4.84
WNW	0	0	0	0	0	0	0	0.00
NW	0	2	1	3	0	0	6	10.52
NNW	0	0	1	0	0	0	1	9.75
Total	3	17	17	10	2	0	49	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 38
 Hours of No Stability Class : 54
 Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983-10- 1 00:00 to 1983-12-31 23:00

Stability Class: C delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	1	0	0	0	0	1	4.91
NNF	0	2	1	7	6	0	16	16.44
NE	1	3	7	14	0	0	25	12.21
ENE	1	3	11	3	0	0	18	9.77
E	0	9	0	0	0	0	9	6.87
ESE	1	3	1	0	0	0	5	6.49
SE	0	2	0	0	0	0	2	7.07
SSE	0	1	1	0	0	0	2	8.61
S	0	0	1	3	0	0	4	13.38
SSW	2	3	5	0	0	0	10	8.28
SW	4	2	3	0	0	0	9	5.32
WSW	1	1	0	0	0	0	2	3.71
W	0	1	0	0	0	0	1	6.14
WNW	0	2	0	0	0	0	2	6.37
NW	0	0	1	2	0	0	3	12.73
NNW	1	2	0	0	0	0	3	5.40
Total	11	35	31	29	6	0	112	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 38
Hours of No Stability Class : 54
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983-10- 1 00:00 to 1983-12-31 23:00

Stability Class: D $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- 4	4- 8	8- 13	13- 19	19- 24	>24		
N	7	11	18	4	0	0	40	8.11
NNE	4	16	31	25	3	0	79	11.06
NE	1	37	87	80	0	0	205	11.61
ENE	6	17	85	16	0	0	124	10.04
E	4	31	21	3	0	0	59	8.03
ESE	4	13	6	5	0	0	28	7.91
SE	5	18	6	0	0	0	29	6.16
SSE	8	13	13	0	0	0	34	6.69
S	9	13	7	3	0	0	32	7.04
SSW	14	28	8	3	0	0	53	6.18
SW	12	47	39	1	1	0	100	7.39
WSW	2	57	53	6	0	0	118	8.52
W	3	21	31	5	3	0	63	9.54
WNW	2	16	12	3	0	0	33	8.18
NW	3	6	5	5	0	0	19	8.75
NNW	2	6	6	2	0	0	16	8.68
Total	86	350	428	161	7	0	1032	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	32
Hours of Missing Data for All	:	38
Hours of No Stability Class	:	54
Total hours of observation	:	2298

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983-10- 1 00:00 to 1983-12-31 23:00

Stability Class: F delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- (1	4- (8	8- (13	13- (19	19- 24	>24		
N	0	3	2	0	0	0	5	6.57
NNE	4	4	3	0	0	0	11	6.06
NE	4	5	2	4	0	0	15	7.90
ENE	0	6	11	3	0	0	20	10.10
E	2	7	2	0	0	0	11	6.36
ESE	5	17	0	0	0	0	22	5.04
SE	6	22	7	0	0	0	35	6.26
SSE	5	18	4	0	0	0	27	5.80
S	5	42	3	0	0	0	50	5.81
SSW	13	45	8	0	0	0	66	5.54
SW	13	45	7	0	0	0	65	5.40
WSW	5	51	4	0	1	0	61	6.13
W	4	18	3	0	0	0	25	5.77
WNW	1	19	0	0	0	0	20	5.56
NW	1	6	1	0	0	0	8	5.68
NNW	1	8	7	0	0	0	16	7.92
Total	69	316	64	7	1	0	457	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 1
Hours of Missing Data for All : 38
Hours of No Stability Class : 54
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983-10- 1 00:00 to 1983-12-31 23:00

Stability Class: F delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	1	0	0	0	0	1	5.34
NNE	0	1	0	0	0	0	1	5.98
NE	0	0	0	0	0	0	0	0.00
ENE	0	1	0	0	0	0	1	5.91
E	1	10	0	0	0	0	11	5.53
ESE	6	4	0	0	0	0	10	4.57
SE	5	12	0	0	0	0	17	5.04
SSE	9	7	1	0	0	0	17	4.04
S	11	20	0	0	0	0	31	4.78
SSW	11	24	0	0	0	0	35	4.61
SW	8	10	0	0	0	0	18	4.20
WSW	2	4	0	0	0	0	6	4.63
W	4	9	0	0	0	0	13	4.35
WNW	3	11	0	0	0	0	14	5.22
NW	0	7	0	0	0	0	7	5.94
NNW	0	0	0	0	0	0	0	0.00
Total	60	121	1	0	0	0	182	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 3
Hours of Missing Data for All : 38
Hours of No Stability Class : 54
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983-10- 1 00:00 to 1983-12-31 23:00

Stability Class: G delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- 4	4- 8	8- 13	13- 19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	1	0	0	0	0	0	1	3.93
E	0	1	0	0	0	0	1	7.57
ESE	0	1	0	0	0	0	1	4.18
SE	6	2	0	0	0	0	8	3.37
SSE	16	8	1	0	0	0	25	3.67
S	36	11	0	0	0	0	47	3.27
SSW	50	12	0	0	0	0	62	3.30
SW	51	7	0	0	0	0	58	3.15
WSW	20	4	0	0	0	0	24	3.44
W	4	2	0	0	0	0	6	3.49
WNW	1	1	0	0	0	0	2	3.75
NW	1	1	1	0	0	0	3	5.77
NNW	0	0	0	0	0	0	0	0.00
Total	186	50	2	0	0	0	238	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 1
Hours of Missing Data for All : 38
Hours of No Stability Class : 54
Total hours of observation : 2208

Table 6
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : 1983-10- 1 00:00 to 1983-12-31 23:00

Stability Class: ALL delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- (4	4- (8	8- (13	13- (19	19- 24	>24		
N	7	18	21	5	1	0	52	8.12
NNE	9	25	38	34	10	0	116	11.31
NE	6	46	102	104	0	0	258	11.44
ENE	9	29	109	24	0	0	171	9.92
E	8	59	24	3	0	0	94	7.36
ESE	16	39	7	7	0	0	69	6.51
SE	22	63	14	0	0	0	99	5.82
SSE	38	52	28	1	0	0	119	5.34
S	63	88	15	7	0	0	173	5.49
SSW	92	115	24	3	0	0	234	5.11
SW	90	119	52	1	1	0	263	5.64
WSW	35	124	60	6	1	0	226	7.00
W	20	58	35	7	3	0	123	7.52
WNW	7	59	12	3	0	0	81	6.48
NW	5	24	9	11	1	0	50	8.41
NNW	5	16	15	3	0	3	42	9.61
Total	432	934	565	219	17	3	2170	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 38
Hours of No Stability Class : 54
Total hours of observation : 2208

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : First Quarter, 1983

Stability Class: A $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	1	0	0	0	1	11.30
SSE	0	0	0	1	0	0	1	13.50
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	1	1	0	0	2	
Hours of Calm : 0								
Hours of Varying Wind Direction : 0								
Hours of Missing Data : 0								
Hours of Missing Data for All : 1								
Hours of No Stability Class : 0								
Total hours of observation : 23								

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29
Data Period : First Quarter, 1983
Stability Class: B $\Delta T / \Delta z$
Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	1	0	0	0	1	9.67
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	1	0	0	0	1	
Hours of Calm :								
Hours of Varying Wind Direction :								
Hours of Missing Data :								
Hours of Missing Data for All :								
Hours of No Stability Class :								
Total hours of observation :								

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29
Data Period : First Quarter, 1983
Stability Class: C $\Delta T / \Delta z$
Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNF	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	0	0	0	0	0	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	1
Hours of No Stability Class	:	0
Total hours of observation	:	23

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29
Data Period : First Quarter, 1983
Stability Class: D $\Delta T / \Delta z$
Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	1	0	0	0	1	11.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	1	9	0	0	10	14.90
W	0	0	1	0	0	0	1	11.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	2	9	0	0	12	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	1
Hours of No Stability Class	:	0
Total hours of observation	:	23

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29
Data Period : First Quarter, 1983
Stability Class: F $\Delta T / \Delta z$
Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- 4	4- 8	8- 13	13- 19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	1	0	0	0	0	1	6.54
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	1	0	0	0	1	12.10
WSW	0	0	2	1	0	0	3	11.87
W	0	0	1	0	0	0	1	11.60
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	1	4	1	0	0	6	
Hours of Calm :								
Hours of Varying Wind Direction :								
Hours of Missing Data :								
Hours of Missing Data for All :								
Hours of No Stability Class :								
Total hours of observation :								

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29
Data Period : First Quarter, 1983
Stability Class: F delta T/ delta z
Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SEF	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	1	0	0	0	1	12.90
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	1	0	0	0	1	
Hours of Calm :								
Hours of Varying Wind Direction :								
Hours of Missing Data :								
Hours of Missing Data for All :								
Hours of No Stability Class :								
Total hours of observation :								

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : First Quarter, 1983

Stability Class: G $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	0	0	0	0	0	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 1
Hours of No Stability Class : 0
Total hours of observation : 23

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Second Quarter, 1983

Stability Class: A $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNF	0	0	0	0	0	0	0	0.00
NF	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	1	1	0	0	0	2	9.25
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	1	1	0	0	0	2	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	0
Hours of No Stability Class	:	0
Total hours of observation	:	20

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Second Quarter, 1983

Stability Class: B delta T/ delta z

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	1	0	0	0	1	11.40
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	1	0	0	0	1	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	0
Hours of No Stability Class	:	0
Total hours of observation	:	20

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Second Quarter, 1983

Stability Class: C $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	1	0	0	0	1	11.80
SW	0	0	1	0	0	0	1	9.35
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	2	0	0	0	2	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 0
 Hours of No Stability Class : 0
 Total hours of observation : 20

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Second Quarter, 1983

Stability Class: D $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	2	0	0	0	2	2.97
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	2	0	0	0	2	10.55
WSW	0	1	0	0	0	0	1	7.34
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
WW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	1	4	0	0	0	5	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 0
 Hours of No Stability Class : 0
 Total hours of observation : 20

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Second Quarter, 1983

Stability Class: E $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	1	1	0	0	0	2	7.85
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	1	0	0	0	0	1	5.41
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	2	1	0	0	0	3	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 0
 Hours of No Stability Class : 0
 Total hours of observation : 20

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Second Quarter, 1983

Stability Class: F $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	2	0	0	0	0	2	6.69
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	2	0	0	0	0	2	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 0
Hours of No Stability Class : 0
Total hours of observation : 20

Table 7

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Second Quarter, 1983

Stability Class: G $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	0	0	0	0	0	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 0
 Hours of No Stability Class : 0
 Total hours of observation : 20

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Fourth Quarter, 1983

Stability Class: A $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	0	0	0	0	0	
Hours of Calm : 0								
Hours of Varying Wind Direction : 0								
Hours of Missing Data : 0								
Hours of Missing Data for All : 2								
Hours of No Stability Class : 4								
Total hours of observation : 95								

Table 7

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Fourth Quarter, 1983

Stability Class: B $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	0	0	0	0	0	
Hours of Calm :								
Hours of Varying Wind Direction :								
Hours of Missing Data :								
Hours of Missing Data for All :								
Hours of No Stability Class :								
Total hours of observation :								

Table 7

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Fourth Quarter, 1983

Stability Class: C $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- 4	4- 8	8- 13	13- 19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	0	1	0	0	0	1	11.70
S	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	1	0	0	1	13.40
NNW	0	0	0	0	0	0	0	0.00
Total	0	0	1	1	0	0	2	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 2
 Hours of No Stability Class : 4
 Total hours of observation : 95

Table 7
JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-26
Data Period : Fourth Quarter, 1983
Stability Class: D $\Delta T / \Delta z$
Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	1	0	0	0	0	1	5.63
ENE	0	0	0	0	0	0	0	0.00
E	0	1	0	0	0	0	1	6.42
ESE	0	0	1	0	0	0	1	9.35
SE	0	2	3	0	0	0	5	7.87
SSE	0	3	4	0	0	0	7	7.86
S	1	2	1	0	0	0	4	6.56
SSW	0	3	0	0	0	0	3	6.68
SW	0	2	1	0	0	0	3	7.03
WSW	0	0	1	0	0	0	1	8.01
W	0	0	2	0	0	0	2	10.27
WNW	0	3	3	1	0	0	7	9.35
NW	0	0	1	3	0	0	4	12.24
NNW	0	0	1	0	0	0	1	12.90
Total	1	17	18	4	0	0	40	
Hours of Calm							:	0
Hours of Varying Wind Direction							:	0
Hours of Missing Data							:	1
Hours of Missing Data for All							:	2
Hours of No Stability Class							:	4
Total hours of observation							:	95

Table 7

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Fourth Quarter, 1983

Stability Class: E $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	1	0	0	0	0	1	5.50
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	1	0	0	0	0	1	5.96
ESE	0	2	0	0	0	0	2	6.44
SE	0	3	3	0	0	0	6	8.01
SSE	0	2	0	0	0	0	2	6.34
S	0	2	0	0	0	0	2	4.54
SSW	0	1	0	0	0	0	1	5.61
SW	1	1	0	0	0	0	2	4.19
WSW	0	1	0	0	0	0	1	6.17
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	1	14	3	0	0	0	18	
Hours of Calm							:	0
Hours of Varying Wind Direction							:	0
Hours of Missing Data							:	1
Hours of Missing Data for All							:	2
Hours of No Stability Class							:	4
Total hours of observation							:	95

Table 7

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Fourth Quarter, 1983

Stability Class: F $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	1	0	0	0	0	1	5.88
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	1	0	0	0	0	1	6.44
ESE	0	1	0	0	0	0	1	5.38
SE	0	0	0	0	0	0	0	0.00
SSE	1	0	0	0	0	0	1	2.19
S	1	3	0	0	0	0	4	5.04
SSW	2	2	0	0	0	0	4	4.38
SW	1	0	0	0	0	0	1	2.15
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	5	8	0	0	0	0	13	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 2
 Hours of No Stability Class : 4
 Total hours of observation : 95

Table 7

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 1984- 2-29

Data Period : Fourth Quarter, 1983

Stability Class: G $\Delta T / \Delta z$

Wind Sensor Height : 10 meter

Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour)						Total	Mean Speed
	0.75- <4	4- <8	8- <13	13- <19	19- 24	>24		
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	2	0	0	0	0	0	2	3.57
S	6	1	0	0	0	0	7	3.11
SSW	5	0	0	0	0	0	5	2.72
SW	2	0	0	0	0	0	2	3.33
WSW	0	0	0	0	0	0	0	0.00
W	0	0	0	0	0	0	0	0.00
WNW	0	0	0	0	0	0	0	0.00
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	15	1	0	0	0	0	15	

Hours of Calm : 0
 Hours of Varying Wind Direction : 0
 Hours of Missing Data : 0
 Hours of Missing Data for All : 2
 Hours of No Stability Class : 4
 Total hours of observation : 95

D. Butler
Montgomery
3. Frong
u. Docket
PRP
SOUTH CAROLINA ELECTRIC & GAS COMPANY

POST OFFICE 784

COLUMBIA, SOUTH CAROLINA 29218

O. W. DIXON, JR.
VICE PRESIDENT
NUCLEAR OPERATIONS

February 29, 1984

04 MAR 7 A10:41

Mr. J. P. O'Reilly,
Regional Administrator
U. S. Nuclear Regulatory Commission
Region II, Suite 2900
101 Marietta Street, N.W.
Atlanta, GA 30303

(3)
Subject: Virgil C. Summer Nuclear Station
Docket No. 50/395
Operating License No. NPF-12
Semi-Annual Effluent
Release Report

Dear Mr. O'Reilly:

Please find attached South Carolina Electric and Gas Company's Semi-Annual Effluent Release Report as required by 10CFR50.36a and Sections 6.9.1.8 and 6.9.1.9 of the Virgil C. Summer Nuclear Station Technical Specifications.

Should you have any questions, please contact us at your convenience.

Very truly yours,

O. W. Dixon, Jr.
O. W. Dixon, Jr.

WRM:OWD/fjc
Attachment:

cc: V. C. Summer
T. C. Nichols, Jr./O. W. Dixon, Jr.
E. H. Crews, Jr.
E. C. Roberts
W. A. Williams, Jr.
D. A. Nauman
Group Managers
O. S. Bradham
C. A. Price
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