VIRGIL C. SUMMER
JENKINSVILLE, SOUTH CAROLINA

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT
VIRGIL C. SUMMER NUCLEAR STATION

FOR THE OPERATING PERIOD
JANUARY 1, 1999 - DECEMBER 31, 1999

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SCE&G

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ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT

JANUARY – DECEMBER, 1999

VIRGIL C. SUMMER NUCLEAR STATION
SOUTH CAROLINA ELECTRIC & GAS

This report is being submitted as a summary of 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 6.14.2 of Technical Specifications, Section 1.6.2 of the Offsite Dose Calculation Manual (ODCM), and 10CFR50.36(a). Also included is an assessment of radiation doses from plant releases.

A brief discussion of the Supplemental Information and Tables 2 through 6 is presented in Sections A through D. An evaluation of the radiological impact on man due to operation of the Virgil C. Summer Nuclear Station is presented in Section E and Table 1. There were no abnormal releases for the period. A summary of the meteorological data for 1999 is presented in Section G and Tables 7 and 8. Changes made to the Offsite Dose Calculation Manual (ODCM) during the 12 month period are discussed in Section H and copies of the ODCM are presented in Attachment I. Section I gives a summary of oil incineration during the year.

A. Supplemental Information

Regulatory limits for doses, dose rate and effluent concentration limits presented in Supplemental Information are from the Virgil C. Summer Nuclear Station ODCM and 40 CFR 190. Average energy ($\overline{E}$) 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 2 and 3. 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 4 and 5. Estimated total errors are expressed as in Section B above.

D. Solid Waste Shipments

Solid waste shipments are summarized in Table 6. Curie content of radioactive waste packages is determined by dose rates and/or gamma spectroscopy analysis of samples. The total error for each type of Curie content determination is conservatively estimated 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 effluents and meteorological data in accordance with the Offsite Dose Calculation Manual. The source term involved two (2) waste gas decay tank (WGDT) releases, 9.4 days of 6-inch Reactor Building purge releases, 28.5 days of 36-inch Reactor Building purge releases and a continuous 12 month Main Plant vent release. There was no Oil Incineration in 1999. Doses are summarized in Table 1. The total activities released are presented in Tables 2 and 3. The highest quarterly air doses to the maximum exposed individual due to noble gases were 2.36E-4 and 8.71E-5 mrad for gamma and beta, respectively, during the first quarter. The maximum quarterly organ dose attributed to the releases was 2.61E-3 mrem for the second quarter. Cumulative annual dose were 3.28E-4 mrad, 1.26E-4 mrad and 2.74E-3 mrem for gamma, beta, and organ dose, 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 237 Waste Monitor Tank batch releases, 15 Condensate Backwash Receiver Tank batch releases, 1 NaOH batch release, 26.2 days of Steam Generator Blowdown release and a continuous Turbine Building Sump release.

Doses are summarized in Table 1 and total radioactivity released is

Doses are summarized in Table 1 and total radioactivity released is described in Tables 4 and 5. The highest quarterly total body dose to the maximally exposed individual due to the release of radioactive liquid was 5.25E-3 mrem during the first quarter. The highest organ dose was 5.61E-3 mrem to the gastro-intestinal tract / lower large intestine (GI-LLI) for the first quarter. Cumulative annual doses for the hypothetical maximally exposed individual were 1.02E-02 mrem and 1.08E-2 mrem for the total body and GI-LLI (maximum annual organ), respectively. The GI-LLI was the maximum exposed organ for all four quarters.

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

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. Quarterly thermoluminescent dosimetry data from four (4) monitoring locations within the site boundary and eight (8) locations around the site boundary perimeter were analyzed and compared with respective pre-operational background and previous year history. Results showed that 1999 quarterly dose rates did not differ significantly from the pre-operational or 1998 dose rates. It was concluded that doses to members of the public inside the site boundary were indistinguishable from normal background dose.

Radiation doses from radioactive effluents to workers at the Fairfield Hydro Station for the 12 month period were calculated to be 1.54E-5 and 5.92E-6 mrad for gamma and beta, respectively.

Radiation doses from nearby uranium fuel cycle sources were not assessed. The ODCM, Sections 1.3.1 and B/1.3 establish 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.

F. Abnormal Releases

During 1999 the plant had no abnormal releases.

G. Meteorology

The meteorology data for 1999 is summarized in Table 7 by quarter. The data are shown as joint frequency distributions of wind direction and speed by atmospheric stability class.

The wind direction and wind speed data used in the summary were acquired from the 10 meter level of the primary monitoring tower. Stability was determined by the primary differential temperature (61 to 10 meter).

The combined annual data recovery for wind direction, wind speed and stability was 90.3. Primary variable recovery rates were as follows: wind direction (10 m) - 90.9%, wind speed (10 m) - 90.3%, and differential temperature (61 - 10 m) - 85.3%.

H. Offsite Dose Calculation Manual

The Virgil C. Summer Nuclear Station (VCSNS) Offsite Dose Calculation Manual (ODCM) was revised once during the affected 12 month period. Administrative changes to correct typographical errors, update sample location maps, and renumber/rearrange Table 1.4.1 and Table 4.0.1 notes were performed. Deleted two pages that were artifacts left from Revision 20. The requirements for an inter-laboratory comparison program and its wording were clarified.

I. OIL INCINERATION

There was no Oil Incineration during 1999.

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT

JANUARY – DECEMBER, 1999

VIRGIL C. SUMMER NUCLEAR STATION
SOUTH CAROLINA ELECTRIC & GAS

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 (ODCM, Section 1.2.3.1).

   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 (ODCM, Section 1.2.4.1).

   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 (ODCM, Section 1.1.3.1).

   d. All Sources:

      The annual dose equivalent shall not exceed 25 mrem to the whole body, 75 mrem to the thyroid and 25 mrem to any other organ (40 CFR 190).

2. Dose Rate and Effluent Concentration Limits:

   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 (ODCM, Section 1.2.2.1).

Supplemental Information

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

The dose rate in unrestricted areas due to radioactive materials in effluents shall be limited to less than or equal to 1500 mrem/year to any organ (ODCM, Section 1.2.2.1).

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 2, 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 µCi/ml total activity (ODCM, Section 1.1.2.1).

3. Average Energy:

Not Applicable

4. Measurements and Approximations of Total Radioactivity:

a. Fission and activation gases: Gamma spectrometry (HPGe)

b. Iodines: Gamma spectrometry (HPGe)

c. Particulates: Gamma spectrometry (HPGe), beta proportional counting, alpha proportional counting

d. Tritium: Liquid scintillation

e. Liquid effluents: Gamma spectrometry (HPGe), liquid scintillation (H-3), beta proportional counting, alpha proportional counting

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT

JANUARY – DECEMBER, 1999

VIRGIL C. SUMMER NUCLEAR STATION
SOUTH CAROLINA ELECTRIC & GAS

Supplemental Information

5. Batch Releases:

a. Gaseous:

1. Number of batch releases: 2

2. Total time period for batch releases: 571 min

3. Maximum time period for a batch release: 376 min

4. Average time period for a batch release: 285 min

5. Minimum time period for a batch release: 195 min

b. Liquid:

1. Number of batch releases:

80 For first quarter,1999
91 For second quarter, 1999
37 For third quarter, 1999
45 For fourth quarter, 1999

2. Total time period for batch releases:

5.93E+3 min. for first quarter, 1999
6.43E+3 min. for second quarter, 1999
2.88E+3 min. for third quarter, 1999
3.46E+3 min. for fourth quarter 1999

3. Maximum time period for a batch release:

8.20E+1 min. for first quarter,1999
1.60E+2 min. for second quarter, 1999
8.80E+1 min. for third quarter, 1999
8.50E+1 min. for fourth quarter, 1999

Supplemental Information

4. Average time period for batch releases:

   7.41E+1 min. for first quarter, 1999
   7.07E+1 min. for second quarter, 1999
   7.78E+1 min. for third quarter, 1999
   7.68E+1 min. for fourth quarter, 1999

5. Minimum time period for a batch release:

   2.40E+1 min. for first quarter, 1999
   5.00E+0 min. for second quarter, 1999
   7.10E+1 min. for third quarter, 1999
   7.10E+1 min. for fourth quarter, 1999

6. Average stream flow during periods of release of effluent into a flowing stream for 1999:

   5.30E+6 gpm for first quarter, 1999
   7.19E+6 gpm for second quarter, 1999
   8.72E+6 gpm for third quarter, 1999
   4.20E+6 gpm for fourth quarter, 1999

6. Abnormal Releases:

   a. Gaseous:

      1. Number of releases: 0

      2. Total activity released: 0

   b. Liquid:

      1. Number of releases: 0

      2. Total activity released: 0

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT

JANUARY - DECEMBER 1999

Virgil C. Summer Nuclear Station
South Carolina Electric Gas

Table 1
GASEOUS AND LIQUID DOSES

		FIRST QUARTER		SECOND QUARTER		THIRD QUARTER		FOURTH QUARTER		TOTAL
ODCM Section	GASEOUS LIMITS	DOSE	Percent of Limit	DOSE	Percent of Limit	DOSE	Percent of Limit	DOSE	Percent of Limit	ANNUAL DOSE
1.2.3.1.a,b	5 mrad gamma / qtr. 10 mrad gamma / yr.	2.36E-04 mrad	4.72E-03 2.36E-03	9.24E-05 mrad	1.85E-03 3.28E-03 *	0.00E+00 mrad	0.00E+00 3.28E-03 *	0.00E+00 mrad	0.00E+00 3.28E-03 *	3.28E-04
1.2.3.1.a,b	10 mrad beta / qtr. 20 mrad beta / yr.	8.71E-05 mrad	8.71E-04 4.36E-04	3.92E-05 mrad	3.92E-04 6.32E-04 *	0.00E+00 mrad	0.00E+00 6.32E-04 *	0.00E+00 mrad	0.00E+00 6.32E-04 *	1.26E-04
1.2.4.1.a,b	7.5 mrem organ/qtr 15 mrem organ/yr.	1.26E-04 mrem**	1.69E-03 8.43E-04	2.61E-03 mrem**	3.49E-02 1.83E-02 *	0.00E+00 mrem**	0.00E+00 1.83E-02 *	0.00E+00 mrem**	0.00E+00 1.83E-02 *	2.74E-03
	LIQUID LIMITS									
1.1.3.1a,b	1.5 mrem / qtr. 3 mrem / yr.	5.25E-03 mrem	3.50E-01 1.75E-01	1.26E-03 mrem	8.37E-02 2.17E-01 *	4.61E-04 mrem	3.07E-02 2.32E-01 *	3.21E-03 mrem	2.14E-01 3.39E-01 *	1.02E-02
1.1.3.1a,b	5 mrem organ/qtr*** 10 mrem organ/yr.	5.61E-03 mrem	1.12E-01 5.61E-02	1.40E-03 mrem	2.80E-02 7.01E-02 *	5.25E-04 mrem	1.05E-02 7.53E-02 *	3.24E-03 mrem	6.47E-02 1.08E-01 *	1.08E-02

* Includes contribution from previous quarters
** Includes dose from all nuclides
*** See page 3 for max organ for each quarter

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT
January - December 1999

Virgil C. Summer Nuclear Station
South Carolina Electric & Gas

Table 2
Gaseous Effluents Summation of All Releases

	UNITS	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	1999 TOTAL	EST. ERROR %
A. Fission & Activation Gases							
1. Total release	Ci	1.47E-01	8.42E-02	0.00E+00	0.00E+00	2.32E-01	28.6
2. Average release rate	uCi / sec	1.90E-02	1.07E-02	0.00E+00	0.00E+00	1.48E-02	
3. Percent ODCM Qtr. gamma air dose limit	%	4.72E-03	1.85E-03	0.00E+00	0.00E+00	N/A	
4. Percent ODCM annual gamma air dose limit	%	2.36E-03	3.28E-03 *	3.28E-03 *	3.28E-03 *	3.28E-03 *	
5. Percent ODCM Qtr. beta air dose limit	%	8.71E-04	3.92E-04	0.00E+00	0.00E+00	N/A	
6. Precent ODCM annual beta air dose limit	%	4.36E-04	6.32E-04 *	6.32E-04 *	6.32E-04 *	6.32E-04 *	
B. Iodines							
1.Total iodine - 131	Ci	0.00E+00	1.12E-06	0.00E+00	0.00E+00	1.12E-06	49.9
2. Average release	uCi / sec	0.00E+00	1.43E-07	0.00E+00	0.00E+00	1.43E-07	
C. Particulates							
1. Particulates with half - lifes > 8 days	Ci	0.00E+00	3.24E-06	0.00E+00	0.00E+00	3.24E-06	52.9
2. Average release rate	uCi / sec	0.00E+00	4.12E-07	0.00E+00	0.00E+00	4.12E-07	
3. Gross alpha radioactivity	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
D. Tritium							
1. Total release	Ci	2.40E-01	4.91E+00	0.00E+00	0.00E+00	5.15E+00	25.1
2. Average release rate	uCi / sec	3.08E-02	6.25E-01	0.00E+00	0.00E+00	3.29E-01	
E. Organ Dose (from B,C,and D)							
1. Percent ODCM Qtr. organ dose limit	%	1.69E-03	3.49E-02	0.00E+00	0.00E+00	N/A	
2. Percent ODCM annual organ dose limit	%	8.43E-04 *	1.83E-02 *	1.83E-02 *	1.83E-02 *	1.83E-02 *	

* Cumulative

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT
JANUARY - DECEMBER, 2000
TABLE 3
GASEOUS EFFLUENTS -- GROUND-LEVEL RELEASES

Nuclides Released	Units	Continuous Mode					Batch Mode				
		First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Annual Total	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Annual Total
1 Fission gases											
Krypton-85	Ci	0	0	0	0	0	0	0	0	0	0
Krypton-85m	Ci	0	0	0	0	0	0	0	0	0	0
Krypton-87	Ci	0	0	0	0	0	0	0	0	0	0
Krypton-88	Ci	0	0	0	0	0	0	0	0	0	0
Xenon-133	Ci	2.11E-02	3.32E-02	0	0	5.43E-02	0	2.54E-03	0	0	2.54E-03
Xenon-135	Ci	0	1.55E-04	0	0	1.55E-04	0	0	0	0	0
Xenon-135m	Ci	0	0	0	0	0	0	0	0	0	0
Xenon-138	Ci	0	0	0	0	0	0	0	0	0	0
Other: Ar-41	Ci	1.26E-01	4.84E-02	0	0	1.74E-01	0	0	0	0	0
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total for Period	Ci	1.47E-01	8.17E-02	0	0	2.29E-01	0	2.54E-03	0	0	2.54E-03
2 Iodines and other halogens											
Iodine-131	Ci	0	1.12E-06	0	0	1.12E-06	0	0	0	0	0
Iodine-132	Ci	0	1.14E-04	0	0	1.14E-04	0	0	0	0	0
Iodine-133	Ci	0	0	0	0	0	0	0	0	0	0
Iodine-135	Ci	0	0	0	0	0	0	0	0	0	0
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total for Period	Ci	0	1.15E-04	0	0	1.15E-04	0	0	0	0	0
3 Particulates											
Stronium-89	Ci	0	0	0	0	0	0	0	0	0	0
Stronium-90	Ci	0	0	0	0	0	0	0	0	0	0
Cesium-134	Ci	0	0	0	0	0	0	0	0	0	0
Cesium-137	Ci	0	0	0	0	0	0	0	0	0	0
Barium-Lanthanum-140	Ci	0	0	0	0	0	0	0	0	0	0
Other: Co-58	Ci	0	3.24E-06	0	0	3.24E-06	0	0	0	0	0
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total for Period	Ci	0	3.24E-06	0	0	3.24E-06	0	0	0	0	0

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT
JANUARY-DECEMBER, 1999

Virgil C. Summer Nuclear Station
South Carolina Electric & Gas
TABLE 4
Liquid Effluents Summation of All Releases

	UNITS	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	1999 TOTAL	EST. ERROR %
A. Fission & Activation Products							
1. Total release	Ci	1.46E-02	1.08E-02	5.67E-03	7.21E-03	3.83E-02	20.1
2. Average diluted concentration	uCi/ml	4.40E-11	3.16E-11	1.60E-11	2.51E-11	2.91E-11	
B. Tritium							
1. Total release	Ci	4.33E+02	1.47E+02	5.60E+01	2.49E+02	8.85E+02	18.3
2. Average diluted concentration	uCi/ml	1.31E-06	4.30E-07	1.58E-07	8.68E-07	6.73E-07	
C. Dissolved and entrained gases							
1. Total release	Ci	1.19E-02	2.20E-03	5.87E-05	2.45E-04	1.44E-02	22.8
2. Average diluted concentration	uCi/ml	3.60E-11	6.43E-12	1.65E-13	8.54E-13	1.10E-11	
3.Percent ODCM limit	%						
D. Gross alpha radioactivity							
1. Total release	Ci	0	0	0	0	0	N/A
E. ODCM limits (from A and B)							
1. Percent of ODCM Qtr total body limit	%	3.50E-01	8.37E-02	3.07E-02	2.14E-01	N/A	
2. Percent of ODCM annual total body limit	%	1.75E-01	2.17E-01*	2.32E-01*	3.39E-01*	3.39E-01*	
3. Percent of ODCM Qtr max. organ limit**	%	1.12E-01	2.80E-02	1.05E-02	6.47E-02	N/A	
4. Percent of ODCM annual max. organ limit**	%	5.61E-02	7.01E-02*	7.53E-02*	1.08E-01*	1.08E-01*	
E. Volume of waste released (undiluted)	liters	2.82E+07	4.13E+07	1.97E+07	1.46E+07	1.04E+08	3.0
F. Volume of dilution water	liters	3.31E+11	3.42E+11	3.55E+11	2.87E+11	1.31E+12	4.3

* Cumulative

** See page 3 for max. organ for each quarter and cumulative.

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT
JANUARY - DECEMBER, 1999
TABLE 5
LIQUID EFFLUENTS

Nuclides Released*	Units	Continuous Mode First Quarter	Continuous Mode Second Quarter	Continuous Mode Third Quarter	Continuous Mode Fourth Quarter	Continuous Mode Annual Total	Batch Mode First Quarter	Batch Mode Second Quarter	Batch Mode Third Quarter	Batch Mode Fourth Quarter	Batch Mode Annual Total
Stronium-89	Ci	0	0	0	0	0	0	0	0	0	0
Stronium-90	Ci	0	0	0	0	0	0	1.22E-06	2.15E-06	0	3.37E-06
Cesium-134	Ci	0	0	0	0	0	7.30E-06	0	0	0	7.30E-06
Cesium-137	Ci	0	0	0	0	0	1.45E-04	5.69E-07	0	0	1.46E-04
Iodine-131	Ci	0	0	0	0	0	0	0	1.19E-06	0	1.19E-06
Cobalt-58	Ci	0	0	0	0	0	1.86E-03	3.15E-03	1.17E-03	3.03E-04	6.48E-03
Cobalt-60	Ci	0	0	0	0	0	5.85E-03	1.34E-03	1.10E-03	1.22E-03	9.51E-03
Iron-59	Ci	0	0	0	0	0	0	4.48E-05	8.25E-06	0	5.31E-05
Zinc-65	Ci	0	0	0	0	0	3.50E-05	1.21E-05	7.60E-06	0	5.47E-05
Manganese-54	Ci	0	0	0	0	0	1.25E-03	2.33E-04	2.46E-04	2.33E-04	1.96E-03
Chromium-51	Ci	0	0	0	0	0	0	1.14E-03	5.93E-05	0	1.20E-03
Zirconium-Niobium-95	Ci	0	0	0	0	0	1.52E-04	1.25E-04	4.79E-05	1.16E-06	3.26E-04
Technetium-99m	Ci	0	0	0	0	0	0	0	2.87E-06	0	2.87E-06
Barium-Lanthanum-140	Ci	0	0	0	0	0	0	0	0	0	0
Other: Be-7	Ci	0	0	0	0	0	0	0	1.34E-04	1.49E-04	2.83E-04
Fe-55	Ci	0	0	0	0	0	4.84E-03	3.73E-03	2.40E-03	4.39E-03	1.54E-02
Co-57	Ci	0	0	0	0	0	1.25E-04	2.15E-05	1.80E-05	6.08E-06	1.71E-04
Ag-110m	Ci	0	0	0	0	0	4.12E-06	0	0	0	4.12E-06
Sn-117m	Ci	0	0	0	0	0	0	1.28E-05	3.21E-07	8.12E-07	1.39E-05
Sb-124	Ci	0	0	0	0	0	0	8.66E-05	1.28E-05	4.17E-06	1.04E-04
Sb-125	Ci	0	0	0	0	0	3.04E-04	8.82E-04	3.79E-04	9.01E-04	2.47E-03
Te-125m	Ci	0	0	0	0	0	0	0	7.68E-05	0	7.68E-05
Te-132	Ci	0	0	0	0	0	0	1.39E-05	0	0	1.39E-05
I-132	Ci	0	0	0	0	0	0	9.20E-06	0	0	9.20E-06
I-133	Ci	0	0	0	0	0	0	0	1.72E-06	0	1.72E-06
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total for Period (above)	Ci	0	0	0	0	0	1.46E-02	1.08E-02	5.53E-03	7.06E-03	3.80E-02
Xenon-133	Ci	0	0	0	0	0	9.80E-03	1.52E-03	5.57E-05	2.40E-04	1.16E-02
Xenon-135	Ci	0	0	0	0	0	1.25E-03	5.22E-04	3.00E-06	4.86E-06	1.78E-03
Other: Ar-41	Ci	0	0	0	0	0	3.74E-06	1.80E-06	0	0	5.54E-06
Kr-85	Ci	0	0	0	0	0	6.09E-04	1.08E-04	0	0	7.17E-04
Kr-85m	Ci	0	0	0	0	0	9.46E-06	3.22E-06	0	0	1.27E-05
Xe-133m	Ci	0	0	0	0	0	2.41E-04	4.02E-05	0	0	2.81E-04
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total Entrained Gases	Ci	0	0	0	0	0	1.19E-02	2.20E-03	5.87E-05	2.45E-04	1.44E-02

*Tritium not included. See Table 4 for tritium numbers

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT
January - December, 1999
Table 6
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

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

1.

Type of Waste	Unit	1999 Total	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m3 Ci	2.01E+01 1.46E+02	3.5E+01
b. Dry compressible waste contaminated equip., etc.	m3 Ci	8.36E+00 1.99E+00	3.5E+01
c. Irradiated components, control rods, etc.	m3 Ci	0 0	N/A
d. Other (describe)	m3 Ci	0 0	N/A

2. Estimate of major nuclide composition for the year (by type of waste) for concentrations above 1.0% (listed in descending order by activity level).

a.	H-3	%	68.20
	Fe-55	%	12.30
	Co-58	%	9.50
	Ni-63	%	4.80
	C-14	%	1.90
	Co-60	%	1.70
b.	Fe-55	%	50.80
	Co-58	%	16.70
	Ni-63	%	14.00
	Co-60	%	8.49
	Mn-54	%	3.72
	Nb-95	%	1.60
	Cs-137	%	1.29
c.	None	%	N/A
d.	None	%	N/A

3A. Solid waste Disposition

Numbers of Shipments	Mode of Transportation	Destination
11*	Truck	Clive, Ut
23 **	Truck	Barnwell, S.C.

* Note: 10 are partial shipments of DAW from waste processor to Clive,Ut.
** Note: 22 are partial shipments of DAW from waste processor to Barnwell, SC

3B. Irradiated Fuel Shipments (Disposition)

Number of Shipments	Mode of Transportation	Destination
0	N/A	N/A

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: A delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	4	0	0	0	0	5	5.04
NNE	0	1	0	1	0	0	2	10.27
NE	0	0	3	1	0	0	4	12.41
ENE	0	0	1	1	1	0	3	14.95
E	0	0	1	0	0	0	1	9.61
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	1	0	0	0	0	1	5.92
SSW	0	1	2	0	0	0	3	8.96
SW	0	7	10	0	0	0	17	8.44
WSW	1	5	13	1	0	0	20	8.62
W	0	3	6	1	0	0	10	9.05
WNW	0	7	1	0	0	0	8	6.51
NW	0	4	0	0	0	0	4	5.33
NNW	0	1	0	0	0	0	1	4.61
Total	2	34	37	5	1	0	79	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	318
Hours of No Stability Class	:	820
Total hours of observation	:	2160

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: B delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	2	1	0	0	0	3	7.30
NNE	1	1	1	0	0	0	3	6.28
NE	2	6	0	2	0	0	10	6.86
ENE	0	1	1	3	0	0	5	13.27
E	0	0	1	0	0	0	1	8.36
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	4	0	0	0	4	10.91
SSW	0	1	1	0	0	0	2	9.65
SW	1	9	3	3	0	0	16	8.19
WSW	0	1	4	0	0	0	5	8.72
W	1	2	4	2	0	0	9	10.11
WNW	1	3	0	0	0	0	4	5.42
NW	0	2	0	0	0	0	2	6.41
NNW	0	0	0	0	0	0	0	0.00
Total	6	28	20	10	0	0	64	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	318
Hours of No Stability Class	:	820
Total hours of observation	:	2160

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: C delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total	Mean Speed
N	2	1	0	0	1	0	4	7.43
NNE	2	0	0	5	3	0	10	14.34
NE	1	2	0	2	0	0	5	9.45
ENE	0	0	1	16	1	0	18	16.67
E	0	1	0	0	0	0	1	7.76
ESE	0	1	0	0	0	0	1	6.08
SE	0	0	0	0	0	0	0	0.00
SSE	0	1	1	0	0	0	2	7.94
S	0	0	3	0	0	0	3	10.49
SSW	0	6	4	0	0	0	10	7.87
SW	0	6	3	1	0	0	10	7.85
WSW	0	3	3	1	0	0	7	8.92
W	0	1	3	2	0	0	6	11.68
WNW	0	2	0	0	0	0	2	4.58
NW	0	2	4	0	0	0	6	8.72
NNW	0	1	0	0	0	0	1	5.14
Total	5	27	22	27	5	0	86	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 318
Hours of No Stability Class : 820
Total hours of observation : 2160

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: D delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	8	6	4	0	0	19	9.52
NNE	2	11	14	1	0	0	28	8.38
NE	4	17	26	11	1	0	59	9.71
ENE	2	9	60	25	1	0	97	11.31
E	1	8	21	2	0	0	32	8.76
ESE	1	11	4	0	0	0	16	6.93
SE	0	10	9	0	0	0	19	7.73
SSE	0	11	4	3	0	0	18	8.41
S	2	5	5	2	0	0	14	8.35
SSW	2	16	13	1	0	0	32	8.05
SW	2	21	16	3	0	0	42	8.04
WSW	3	24	10	1	0	0	38	6.75
W	5	17	5	2	0	0	29	6.83
WNW	6	8	2	0	0	0	16	5.61
NW	1	11	3	0	0	0	15	5.87
NNW	4	7	5	5	0	0	21	9.14
Total	36	194	203	60	2	0	495	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	318
Hours of No Stability Class	:	820
Total hours of observation	:	2160

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: E delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	5	3	1	1	0	0	10	5.66
NNE	1	11	4	0	0	0	16	5.71
NE	5	5	5	0	0	0	15	6.36
ENE	2	2	1	0	0	0	5	5.37
E	2	6	2	0	0	0	10	6.35
ESE	1	5	4	0	0	0	10	6.92
SE	3	13	10	0	0	0	26	7.05
SSE	3	10	1	0	0	0	14	5.22
S	2	19	8	0	0	0	29	7.05
SSW	8	37	9	1	0	0	55	6.27
SW	9	28	4	0	0	0	41	5.46
WSW	12	25	4	0	0	0	41	5.19
W	10	23	4	0	0	0	37	5.21
WNW	11	2	1	0	0	0	14	3.95
NW	3	2	0	0	0	0	5	3.69
NNW	3	3	3	0	0	0	9	5.60
Total	80	194	61	2	0	0	337	

Hours of Calm	:	1
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	318
Hours of No Stability Class	:	820
Total hours of observation	:	2160

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: F delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	1	0	0	0	0	2	3.49
NNE	2	0	0	0	0	0	2	2.36
NE	0	2	0	0	0	0	2	5.08
ENE	1	0	0	0	0	0	1	1.68
E	0	4	0	0	0	0	4	6.59
ESE	3	0	0	0	0	0	3	2.88
SE	2	5	1	0	0	0	8	5.17
SSE	4	22	1	0	0	0	27	5.16
S	2	32	2	0	0	0	36	6.01
SSW	5	18	0	0	0	0	23	4.83
SW	7	10	0	0	0	0	17	4.06
WSW	6	5	0	0	0	0	11	3.52
W	7	2	0	0	0	0	9	3.22
WNW	4	9	0	0	0	0	13	3.94
NW	2	2	0	0	0	0	4	4.32
NNW	1	2	1	0	0	0	4	5.50
Total	47	114	5	0	0	0	166	

Hours of Calm : 1
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 318
Hours of No Stability Class : 820
Total hours of observation : 2160

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: G delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total	Mean Speed
N	1	0	0	0	0	0	1	3.56
NNE	1	0	0	0	0	0	1	2.80
NE	1	0	0	0	0	0	1	1.52
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	1	0	0	0	0	0	1	1.12
SE	1	3	0	0	0	0	4	4.61
SSE	7	8	2	0	0	0	17	4.96
S	6	6	0	0	0	0	12	4.07
SSW	5	7	0	0	0	0	12	3.88
SW	10	9	0	0	0	0	19	3.97
WSW	9	3	0	0	0	0	12	3.32
W	11	5	0	0	0	0	16	3.39
WNW	9	3	0	0	0	0	12	3.37
NW	3	0	0	0	0	0	3	2.61
NNW	0	0	0	0	0	0	0	0.00
Total	65	44	2	0	0	0	111	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 318
Hours of No Stability Class : 820
Total hours of observation : 2160

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class:ALL delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	16	30	18	25	10	1	100	10.49
NNE	16	33	25	16	4	0	94	8.56
NE	18	40	47	19	1	0	125	8.68
ENE	6	14	82	51	3	0	156	11.78
E	3	27	29	2	0	0	61	8.06
ESE	8	32	14	0	0	0	54	6.58
SE	8	47	26	0	0	0	81	6.84
SSE	20	65	18	4	0	0	107	6.35
S	15	76	25	3	0	0	119	6.75
SSW	26	96	31	5	0	0	158	6.48
SW	38	117	40	9	0	0	204	6.42
WSW	39	83	43	5	1	0	171	6.33
W	53	70	28	9	0	0	160	6.08
WNW	37	49	4	0	0	0	90	4.71
NW	11	39	14	3	0	0	67	6.31
NNW	13	28	31	16	0	0	88	8.81
Total	327	846	475	167	19	1	1835	

Hours of Calm : 7
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 318
Hours of No Stability Class : 820
Total hours of observation : 2160

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: A delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	3	0	0	0	0	3	4.82
NNE	1	2	0	0	1	0	4	8.26
NE	0	2	0	1	1	0	4	11.93
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	10.84
SSE	0	0	3	0	0	0	3	10.26
S	0	2	6	0	0	0	8	8.32
SSW	0	2	5	0	0	0	7	8.51
SW	3	17	12	2	0	0	34	8.01
WSW	1	17	36	5	0	0	59	9.38
W	2	13	5	3	0	0	23	7.96
WNW	1	6	3	0	0	0	10	6.93
NW	2	11	0	0	0	0	13	5.51
NNW	1	6	1	0	0	0	8	5.85
Total	11	81	72	11	2	0	177	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 9
Hours of Missing Data for All : 120
Hours of No Stability Class : 88
Total hours of observation : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: B delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	2	0	0	0	0	3	4.69
NNE	4	2	0	1	0	6	13	15.48
NE	1	3	2	1	0	0	7	7.21
ENE	0	1	1	0	0	0	2	8.27
E	0	2	1	0	0	0	3	7.35
ESE	0	0	1	0	0	0	1	8.58
SE	0	0	0	0	0	0	0	0.00
SSE	0	2	3	0	0	0	5	7.88
S	2	1	3	0	0	0	6	6.83
SSW	0	0	0	0	0	0	0	0.00
SW	3	15	5	0	0	0	23	6.55
WSW	2	8	4	1	0	0	15	7.15
W	1	6	1	2	0	0	10	7.54
WNW	1	4	0	0	0	0	5	4.44
NW	0	3	1	0	0	0	4	6.35
NNW	1	4	0	0	0	0	5	5.58
Total	16	53	22	5	0	6	102	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	120
Hours of No Stability Class	:	88
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: C delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	4	5	0	0	0	0	9	4.37
NNE	4	5	0	2	4	3	18	13.18
NE	1	2	4	13	1	0	21	13.10
ENE	0	4	1	1	0	0	6	8.37
E	0	2	5	0	0	0	7	9.35
ESE	0	1	0	0	0	0	1	7.98
SE	1	3	0	0	0	0	4	6.42
SSE	0	3	0	0	0	0	3	6.05
S	0	5	7	0	0	0	12	8.37
SSW	0	4	4	0	0	0	8	7.99
SW	3	6	5	2	0	0	16	7.47
WSW	1	6	4	1	0	0	12	8.24
W	0	4	1	0	0	0	5	6.13
WNW	1	1	0	0	0	0	2	4.54
NW	1	4	1	0	0	0	6	5.74
NNW	2	4	0	0	0	0	6	4.30
Total	18	59	32	19	5	3	136	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	1
Hours of Missing Data for All	:	120
Hours of No Stability Class	:	88
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: D delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	7	27	17	13	0	0	64	8.64
NNE	4	26	64	76	19	0	189	12.81
NE	5	23	28	23	0	0	79	10.07
ENE	1	27	34	7	0	0	69	9.41
E	2	23	10	6	0	0	41	8.45
ESE	1	22	6	1	0	0	30	6.87
SE	1	13	11	0	0	0	25	7.34
SSE	4	18	14	0	0	0	36	7.07
S	7	32	17	0	0	0	56	7.06
SSW	7	44	17	1	0	0	69	6.68
SW	12	33	17	2	0	0	64	6.42
WSW	7	22	13	2	0	0	44	7.03
W	5	5	2	0	0	0	12	5.09
WNW	5	3	0	0	0	0	8	3.55
NW	3	6	0	0	0	0	9	4.51
NNW	10	15	4	5	1	0	35	7.24
Total	81	339	254	136	20	0	830	

Hours of Calm	:	1
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	2
Hours of Missing Data for All	:	120
Hours of No Stability Class	:	88
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: E delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	3	10	5	1	0	0	19	7.39
NNE	7	4	4	0	1	0	16	6.24
NE	8	12	9	0	0	0	29	6.23
ENE	4	12	6	0	0	0	22	5.86
E	5	7	4	0	0	0	16	6.27
ESE	4	10	3	0	0	0	17	5.63
SE	2	14	1	0	0	0	17	5.85
SSE	4	26	7	0	0	0	37	6.23
S	18	49	24	0	0	0	91	6.05
SSW	13	58	18	0	0	0	89	6.25
SW	20	28	6	0	0	0	54	5.25
WSW	10	27	13	0	0	0	50	6.30
W	10	24	6	0	0	0	40	5.67
WNW	13	8	0	0	0	0	21	3.97
NW	7	2	1	0	0	0	10	3.39
NNW	10	6	2	0	0	0	18	4.21
Total	138	297	109	1	1	0	546	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	7
Hours of Missing Data for All	:	120
Hours of No Stability Class	:	88
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: F delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	4	0	0	0	0	5	4.98
NNE	1	4	0	0	0	0	5	4.01
NE	3	0	0	0	0	0	3	1.67
ENE	2	2	0	0	0	0	4	4.11
E	2	1	0	0	0	0	3	4.35
ESE	2	3	1	0	0	0	6	5.16
SE	2	9	0	0	0	0	11	5.03
SSE	7	13	0	0	0	0	20	4.58
S	10	18	3	0	0	0	31	5.26
SSW	7	8	0	0	0	0	15	4.40
SW	25	6	0	0	0	0	31	3.28
WSW	11	10	0	0	0	0	21	3.65
W	8	9	0	0	0	0	17	3.96
WNW	7	3	0	0	0	0	10	3.33
NW	5	4	0	0	0	0	9	3.94
NNW	1	5	0	0	0	0	6	4.35
Total	94	99	4	0	0	0	197	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 5
Hours of Missing Data for All : 120
Hours of No Stability Class : 88
Total hours of observation : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: G delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	1	1	0	0	0	0	2	3.65
ENE	1	0	0	0	0	0	1	3.32
E	2	0	0	0	0	0	2	1.37
ESE	1	0	0	0	0	0	1	2.53
SE	2	1	0	0	0	0	3	3.51
SSE	6	6	0	0	0	0	12	3.66
S	3	5	0	0	0	0	8	4.40
SSW	10	0	0	0	0	0	10	2.54
SW	7	0	0	0	0	0	7	3.28
WSW	8	3	0	0	0	0	11	2.88
W	5	0	0	0	0	0	5	2.13
WNW	8	1	0	0	0	0	9	3.01
NW	2	0	0	0	0	0	2	2.91
NNW	2	0	0	0	0	0	2	3.11
Total	58	17	0	0	0	0	75	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	8
Hours of Missing Data for All	:	120
Hours of No Stability Class	:	88
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class:ALL delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	16	51	22	14	0	0	103	7.63
NNE	21	43	68	79	25	9	245	12.29
NE	19	43	43	38	2	0	145	9.39
ENE	8	46	42	8	0	0	104	8.32
E	11	35	20	6	0	0	72	7.64
ESE	8	36	11	1	0	0	56	6.28
SE	8	40	13	0	0	0	61	6.32
SSE	21	68	27	0	0	0	116	6.11
S	40	112	60	0	0	0	212	6.38
SSW	37	116	44	1	0	0	198	6.22
SW	73	105	45	6	0	0	229	5.95
WSW	40	93	70	9	0	0	212	7.04
W	31	61	15	5	0	0	112	5.85
WNW	36	26	3	0	0	0	65	4.20
NW	20	30	3	0	0	0	53	4.66
NNW	27	40	7	5	1	0	80	5.78
Total	416	945	493	172	28	9	2063	

Hours of Calm : 1
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 120
Hours of No Stability Class : 88
Total hours of observation : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: A delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	0	0	0	1	1	29.79
NNE	0	1	2	0	0	2	5	17.89
NE	0	2	0	0	0	0	2	6.39
ENE	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0.00
ESE	0	2	0	0	0	0	2	6.03
SE	0	1	0	0	0	0	1	5.86
SSE	0	1	0	0	0	0	1	5.18
S	0	0	0	0	0	0	0	0.00
SSW	0	4	3	0	0	0	7	7.88
SW	0	12	5	0	0	0	17	6.65
WSW	0	15	5	0	0	0	20	6.34
W	0	15	3	0	0	0	18	6.80
WNW	1	6	2	0	0	0	9	6.55
NW	0	1	1	0	0	0	2	8.85
NNW	0	1	0	0	0	2	3	20.15
Total	1	61	21	0	0	5	88	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 383
Hours of No Stability Class : 351
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: B delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	2	1	0	1	1	6	12.66
NNE	0	2	0	0	0	4	6	24.30
NE	0	0	1	0	0	0	1	8.19
ENE	0	0	1	0	0	0	1	9.52
E	0	1	0	0	0	0	1	7.99
ESE	0	1	0	0	0	0	1	5.97
SE	0	0	1	0	0	0	1	9.01
SSE	0	0	1	0	0	0	1	11.36
S	0	3	3	1	0	0	7	9.97
SSW	0	2	0	0	0	0	2	6.37
SW	0	13	2	0	0	0	15	5.92
WSW	3	4	0	0	0	0	7	5.22
W	0	2	1	0	0	0	3	6.50
WNW	1	6	0	0	0	0	7	5.73
NW	0	1	3	0	0	0	4	9.97
NNW	0	2	0	0	0	0	2	6.02
Total	5	39	14	1	1	5	65	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	383
Hours of No Stability Class	:	351
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: C delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	2	3	1	2	0	0	8	8.07
NNE	2	12	1	3	0	1	19	8.75
NE	1	4	5	2	0	0	12	9.38
ENE	0	10	7	0	0	0	17	7.88
E	0	1	0	0	0	0	1	6.22
ESE	0	3	0	0	0	0	3	7.69
SE	0	5	1	0	0	0	6	6.69
SSE	0	2	3	1	0	0	6	10.04
S	0	7	1	0	0	0	8	7.07
SSW	0	12	2	0	0	0	14	6.65
SW	4	10	1	0	0	0	15	5.08
WSW	2	2	0	0	0	0	4	4.29
W	3	4	0	0	0	0	7	4.69
WNW	2	5	0	0	0	0	7	4.83
NW	0	4	4	0	0	0	8	7.56
NNW	3	5	0	0	0	0	8	4.76
Total	19	89	26	8	0	1	143	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 1
Hours of Missing Data for All : 383
Hours of No Stability Class : 351
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: D delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	18	42	16	20	0	0	96	8.03
NNE	7	46	60	37	11	4	165	10.96
NE	5	46	59	29	2	0	141	9.96
ENE	1	19	25	4	0	0	49	8.93
E	1	14	7	0	0	0	22	6.81
ESE	1	17	1	0	0	0	19	6.47
SE	1	33	3	1	0	0	38	6.44
SSE	0	30	7	4	0	0	41	7.74
S	1	23	15	4	0	0	43	7.93
SSW	6	30	6	3	0	0	45	6.54
SW	16	22	0	0	0	0	38	4.67
WSW	11	13	0	0	0	0	24	4.23
W	7	11	0	0	0	0	18	4.58
WNW	7	9	3	0	0	0	19	5.27
NW	10	16	8	2	0	0	36	6.59
NNW	8	31	8	8	0	1	56	8.01
Total	100	402	218	112	13	5	850	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 17
Hours of Missing Data for All : 383
Hours of No Stability Class : 351
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: E delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	3	5	4	0	0	0	12	6.22
NNE	2	4	6	4	0	0	16	9.59
NE	0	4	8	1	0	0	13	9.85
ENE	1	2	3	0	0	0	6	7.40
E	0	9	2	0	0	0	11	6.21
ESE	1	12	3	0	0	0	16	6.55
SE	1	9	3	0	0	0	13	6.21
SSE	10	37	0	0	0	0	47	5.00
S	19	44	5	0	0	0	68	5.17
SSW	20	35	1	0	0	0	56	4.77
SW	31	24	1	0	0	0	56	4.09
WSW	32	16	0	0	0	0	48	3.67
W	17	10	1	0	0	0	28	3.98
WNW	9	13	1	0	0	0	23	4.65
NW	2	14	0	0	0	0	16	4.64
NNW	6	3	7	0	0	0	16	6.77
Total	154	241	45	5	0	0	445	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	3
Hours of Missing Data for All	:	383
Hours of No Stability Class	:	351
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: F delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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	1	0	0	0	1	8.79
ESE	0	0	0	0	0	0	0	0.00
SE	1	7	3	0	0	0	11	6.71
SSE	3	11	1	0	0	0	15	4.95
S	8	5	1	0	0	0	14	4.24
SSW	6	9	0	0	0	0	15	4.66
SW	19	5	0	0	0	0	24	3.54
WSW	13	9	1	0	0	0	23	4.23
W	15	4	0	0	0	0	19	3.26
WNW	15	11	0	0	0	0	26	4.00
NW	4	6	1	0	0	0	11	4.79
NNW	1	2	1	0	0	0	4	6.26
Total	85	69	9	0	0	0	163	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	2
Hours of Missing Data for All	:	383
Hours of No Stability Class	:	351
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: G delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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	5	0	0	0	0	5	5.56
S	1	4	0	0	0	0	5	4.42
SSW	5	4	0	0	0	0	9	4.28
SW	8	3	1	0	0	0	12	4.34
WSW	9	10	0	0	0	0	19	4.20
W	7	9	0	0	0	0	16	4.66
WNW	2	2	0	0	0	0	4	4.41
NW	1	0	0	0	0	0	1	1.96
NNW	0	0	0	0	0	0	0	0.00
Total	33	37	1	0	0	0	71	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	9
Hours of Missing Data for All	:	383
Hours of No Stability Class	:	351
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class:ALL delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	24	52	22	22	1	2	123	8.26
NNE	11	65	69	44	11	11	211	11.20
NE	6	56	73	32	2	0	169	9.86
ENE	2	31	36	4	0	0	73	8.57
E	1	25	10	0	0	0	36	6.70
ESE	2	35	4	0	0	0	41	6.56
SE	3	55	11	1	0	0	70	6.49
SSE	13	86	12	5	0	0	116	6.30
S	29	86	25	5	0	0	145	6.21
SSW	37	96	12	3	0	0	148	5.62
SW	78	89	10	0	0	0	177	4.64
WSW	70	69	6	0	0	0	145	4.38
W	49	55	5	0	0	0	109	4.63
WNW	37	52	6	0	0	0	95	4.86
NW	17	42	17	2	0	0	78	6.21
NNW	18	44	16	8	0	3	89	7.78
Total	397	938	334	126	14	16	1825	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data for All	:	383
Hours of No Stability Class	:	351
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: A delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	1	0	0	0	0	1	6.99
NNE	0	0	2	1	0	0	3	12.41
NE	0	0	1	3	0	0	4	14.81
ENE	0	1	1	0	0	0	2	7.73
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	6.47
SSE	0	2	0	0	0	0	2	6.24
S	0	0	0	0	0	0	0	0.00
SSW	0	0	1	0	0	0	1	11.09
SW	0	0	0	0	0	0	0	0.00
WSW	0	6	16	0	0	0	22	9.07
W	0	4	2	0	0	0	6	7.79
WNW	0	1	0	0	0	0	1	6.84
NW	0	2	1	0	0	0	3	8.45
NNW	0	0	1	3	0	0	4	13.03
Total	0	18	25	7	0	0	50	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	32
Hours of No Stability Class	:	31
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: B delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	1	0	0	3	0	4	16.49
NNE	0	1	3	1	2	0	7	14.72
NE	0	1	8	2	0	0	11	11.08
ENE	0	2	1	0	0	0	3	7.48
E	0	0	1	0	0	0	1	9.14
ESE	0	0	0	0	0	0	0	0.00
SE	0	1	0	0	0	0	1	6.92
SSE	0	0	0	0	0	0	0	0.00
S	0	1	1	0	0	0	2	8.39
SSW	0	0	0	0	0	0	0	0.00
SW	0	8	0	0	0	0	8	6.23
WSW	0	5	10	0	0	0	15	8.52
W	0	3	2	0	0	0	5	7.54
WNW	0	0	0	0	0	0	0	0.00
NW	0	2	1	0	0	0	3	8.25
NNW	0	2	2	3	0	0	7	12.50
Total	0	27	29	6	5	0	67	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	32
Hours of No Stability Class	:	31
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: C delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	5	1	5	3	0	14	12.38
NNE	0	4	1	4	7	0	16	14.88
NE	0	6	7	8	1	0	22	12.14
ENE	0	9	5	0	0	0	14	7.78
E	0	7	3	0	0	0	10	7.14
ESE	0	2	2	0	0	0	4	8.12
SE	0	2	2	0	0	0	4	7.80
SSE	0	2	1	0	0	0	3	7.27
S	0	3	3	0	0	0	6	9.41
SSW	0	4	1	2	0	0	7	9.02
SW	0	7	3	0	0	0	10	7.44
WSW	0	5	2	0	0	0	7	7.47
W	0	2	3	0	0	0	5	7.87
WNW	0	5	1	0	0	0	6	6.34
NW	0	3	0	0	0	0	3	6.09
NNW	0	4	4	0	0	0	8	8.21
Total	0	70	39	19	11	0	139	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 32
Hours of No Stability Class : 31
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: D delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	39	17	8	5	2	71	9.82
NNE	0	49	29	22	8	1	109	10.51
NE	0	40	77	51	1	0	169	11.07
ENE	0	36	81	17	0	0	134	9.83
E	0	45	38	0	0	0	83	7.79
ESE	0	29	9	0	0	0	38	7.05
SE	0	16	11	1	0	0	28	7.77
SSE	0	21	14	1	0	0	36	7.67
S	0	19	13	1	0	0	33	7.87
SSW	0	21	6	2	0	0	29	7.42
SW	0	26	7	0	0	0	33	7.08
WSW	0	36	19	0	0	0	55	7.79
W	0	28	7	0	0	0	35	7.15
WNW	0	27	3	0	0	0	30	6.35
NW	0	26	6	0	0	0	32	6.69
NNW	0	25	4	4	0	0	33	7.73
Total	0	483	341	107	14	3	948	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	1
Hours of Missing Data for All	:	32
Hours of No Stability Class	:	31
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: E delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	6	1	0	0	0	7	6.86
NNE	0	12	2	0	0	0	14	6.60
NE	0	13	1	0	0	0	14	6.16
ENE	0	5	1	0	0	0	6	6.68
E	0	16	1	0	0	0	17	6.75
ESE	0	23	1	0	0	0	24	6.35
SE	0	19	1	0	0	0	20	6.11
SSE	0	35	9	0	0	0	44	6.55
S	0	28	9	0	0	0	37	6.71
SSW	0	12	5	0	0	0	17	6.63
SW	0	31	6	0	0	0	37	6.39
WSW	0	37	5	0	0	0	42	6.47
W	0	37	4	0	0	0	41	6.20
WNW	0	24	1	0	0	0	25	5.97
NW	0	19	1	0	0	0	20	6.23
NNW	0	7	4	0	0	0	11	7.63
Total	0	324	52	0	0	0	376	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 32
Hours of No Stability Class : 31
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: F delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	1	0	0	0	1	8.72
NNE	0	2	1	0	0	0	3	7.19
NE	0	0	0	0	0	0	0	0.00
ENE	0	3	0	0	0	0	3	5.91
E	0	3	0	0	0	0	3	5.29
ESE	0	4	2	0	0	0	6	7.19
SE	0	11	3	0	0	0	14	6.84
SSE	0	26	0	0	0	0	26	6.11
S	0	23	2	0	0	0	25	6.02
SSW	0	20	2	0	0	0	22	6.01
SW	0	39	0	0	0	0	39	5.49
WSW	0	18	5	0	0	0	23	6.09
W	0	27	2	0	0	0	29	6.07
WNW	0	15	1	0	0	0	16	5.83
NW	0	6	1	0	0	0	7	6.19
NNW	0	5	0	0	0	0	5	6.82
Total	0	202	20	0	0	0	222	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	32
Hours of No Stability Class	:	31
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: G delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	0	0	0	0	0	0.00
NNE	0	1	0	0	0	0	1	5.86
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	2	0	0	0	2	8.76
E	0	1	0	0	0	0	1	7.87
ESE	0	2	0	0	0	0	2	6.96
SE	0	3	0	0	0	0	3	6.11
SSE	0	11	1	0	0	0	12	5.57
S	0	44	1	0	0	0	45	5.85
SSW	0	49	2	0	0	0	51	5.71
SW	0	58	2	0	0	0	60	5.54
WSW	0	94	6	0	0	0	100	5.82
W	0	60	0	0	0	0	60	5.49
WNW	0	28	1	0	0	0	29	6.01
NW	0	4	1	0	0	0	5	6.46
NNW	0	3	0	0	0	0	3	6.56
Total	0	358	16	0	0	0	374	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 32
Hours of No Stability Class : 31
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class:ALL delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	52	20	13	11	2	98	10.20
NNE	0	69	38	28	17	1	153	10.74
NE	0	60	94	64	2	0	220	10.93
ENE	0	56	91	17	0	0	164	9.39
E	0	72	43	0	0	0	115	7.53
ESE	0	60	14	0	0	0	74	6.89
SE	0	53	17	1	0	0	71	7.02
SSE	0	97	25	1	0	0	123	6.70
S	0	118	29	1	0	0	148	6.72
SSW	0	106	17	4	0	0	127	6.50
SW	0	169	18	0	0	0	187	6.10
WSW	0	201	63	0	0	0	264	6.83
W	0	161	20	0	0	0	181	6.26
WNW	0	100	7	0	0	0	107	6.09
NW	0	62	11	0	0	0	73	6.62
NNW	0	46	15	10	0	0	71	8.43
Total	0	1482	522	139	30	3	2176	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 32
Hours of No Stability Class : 31
Total hours of observation : 2208

TABLE 8

JOINT FREQUENCY DISTRIBUTION

BY QUARTER FOR 1999

(BATCH RELEASES)

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: A delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	2	0	0	0	2	10.72
ENE	0	0	1	0	1	0	2	15.57
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	3	1	0	0	0	4	7.45
NW	0	1	0	0	0	0	1	6.19
NNW	0	0	0	0	0	0	0	0.00
Total	0	4	4	0	1	0	9	

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 : 1
Total hours of observation : 149

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: B delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total	Mean Speed
N	0	1	0	0	0	0	1	6.43
NNE	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0.00
ENE	0	0	1	2	0	0	3	15.24
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	1	0	0	0	0	1	5.82
NW	0	1	0	0	0	0	1	5.24
NNW	0	0	0	0	0	0	0	0.00
Total	0	3	1	2	0	0	6	

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 : 1
Total hours of observation : 149

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: C delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	1	0	0	0	0	1	4.94
NNE	1	0	0	0	0	0	1	3.40
NE	1	1	0	0	0	0	2	4.77
ENE	0	0	1	0	0	0	1	10.91
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	2	0	0	0	0	2	6.50
NNW	0	0	0	0	0	0	0	0.00
Total	2	4	1	0	0	0	7	

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 : 1
Total hours of observation : 149

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: D delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	1	0	0	0	0	1	6.67
NNE	0	3	1	0	0	0	4	5.88
NE	0	4	3	4	1	0	12	11.18
ENE	0	2	13	3	0	0	18	11.39
E	0	1	3	1	0	0	5	9.41
ESE	0	0	2	0	0	0	2	8.46
SE	0	1	3	0	0	0	4	9.01
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	2.36
SW	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0.00
W	2	0	0	0	0	0	2	2.81
WNW	6	1	0	0	0	0	7	4.10
NW	1	3	0	0	0	0	4	4.38
NNW	1	1	0	0	0	0	2	4.30
Total	11	17	25	8	1	0	62	

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 : 1
Total hours of observation : 149

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: E delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	0	0	0	0	0	0.00
NNE	0	1	0	0	0	0	1	4.83
NE	0	0	4	0	0	0	4	10.63
ENE	0	1	1	0	0	0	2	8.42
E	0	3	1	0	0	0	4	7.30
ESE	0	1	2	0	0	0	3	8.43
SE	0	1	2	0	0	0	3	8.08
SSE	0	1	0	0	0	0	1	5.39
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	2	1	0	0	0	0	3	3.20
W	4	1	0	0	0	0	5	3.39
WNW	4	0	0	0	0	0	4	3.21
NW	0	0	0	0	0	0	0	0.00
NNW	0	1	0	0	0	0	1	4.18
Total	10	11	10	0	0	0	31	

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	:	1
Total hours of observation	:	149

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: F delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	0	0	0	0	0	1	1.96
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	6.74
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	2	0	0	0	0	0	2	3.35
WSW	1	0	0	0	0	0	1	1.79
W	5	0	0	0	0	0	5	2.85
WNW	2	0	0	0	0	0	2	2.56
NW	0	0	0	0	0	0	0	0.00
NNW	0	1	0	0	0	0	1	4.73
Total	11	3	0	0	0	0	14	

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 : 1
Total hours of observation : 149

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class: G delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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	1	0	0	0	0	1	4.23
WSW	5	1	0	0	0	0	6	3.61
W	4	2	0	0	0	0	6	3.57
WNW	2	1	0	0	0	0	3	3.65
NW	3	0	0	0	0	0	3	2.61
NNW	0	0	0	0	0	0	0	0.00
Total	14	5	0	0	0	0	19	

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 : 1
Total hours of observation : 149

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 1- 1 00:00 to 99- 3-31 23:00
Stability Class:ALL delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	3	0	0	0	0	4	5.00
NNE	1	4	1	0	0	0	6	5.29
NE	1	5	9	4	1	0	20	10.38
ENE	0	3	17	5	1	0	26	11.91
E	0	6	4	1	0	0	11	8.16
ESE	0	1	4	0	0	0	5	8.44
SE	0	2	5	0	0	0	7	8.61
SSE	0	1	0	0	0	0	1	5.39
S	0	0	0	0	0	0	0	0.00
SSW	1	0	0	0	0	0	1	2.36
SW	2	1	0	0	0	0	3	3.64
WSW	8	2	0	0	0	0	10	3.30
W	15	3	0	0	0	0	18	3.24
WNW	14	6	1	0	0	0	21	4.44
NW	4	7	0	0	0	0	11	4.52
NNW	1	3	0	0	0	0	4	4.38
Total	48	47	41	10	2	0	148	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 1
Hours of No Stability Class : 1
Total hours of observation : 149

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: A delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	1	0	1	19.79
NE	0	0	0	0	1	0	1	23.02
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	9.00
SW	0	3	9	2	0	0	14	10.60
WSW	0	7	18	5	0	0	30	10.16
W	0	9	3	3	0	0	15	8.85
WNW	0	2	3	0	0	0	5	8.72
NW	0	7	0	0	0	0	7	6.06
NNW	0	0	0	0	0	0	0	0.00
Total	0	28	34	10	2	0	74	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	10
Hours of No Stability Class	:	10
Total hours of observation	:	770

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: B delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	0	0	0	0	0	0.00
NNE	1	0	0	1	0	6	8	22.40
NE	0	1	0	0	0	0	1	4.70
ENE	0	1	0	0	0	0	1	4.34
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	1	3	3	0	0	0	7	7.49
WSW	0	5	1	1	0	0	7	7.76
W	1	2	0	2	0	0	5	8.44
WNW	0	2	0	0	0	0	2	4.80
NW	0	0	1	0	0	0	1	9.02
NNW	0	2	0	0	0	0	2	5.80
Total	3	16	5	4	0	6	34	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	10
Hours of No Stability Class	:	10
Total hours of observation	:	770

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: C delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	1	0	0	0	0	1	5.15
NNE	1	0	0	2	4	3	10	19.62
NE	0	0	0	6	1	0	7	17.47
ENE	0	1	0	0	0	0	1	5.99
E	0	1	3	0	0	0	4	9.37
ESE	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0.00
SSE	0	1	0	0	0	0	1	5.96
S	0	1	2	0	0	0	3	7.87
SSW	0	0	1	0	0	0	1	12.36
SW	0	0	2	2	0	0	4	12.11
WSW	0	1	2	1	0	0	4	11.25
W	0	1	0	0	0	0	1	5.55
WNW	1	0	0	0	0	0	1	3.32
NW	0	0	1	0	0	0	1	9.95
NNW	1	0	0	0	0	0	1	2.67
Total	3	7	11	11	5	3	40	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	10
Hours of No Stability Class	:	10
Total hours of observation	:	770

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: D delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	4	1	9	0	0	15	11.91
NNE	1	5	2	34	16	0	58	16.35
NE	2	3	2	12	0	0	19	12.57
ENE	0	6	5	2	0	0	13	9.51
E	0	15	6	4	0	0	25	8.83
ESE	1	11	4	1	0	0	17	6.94
SE	1	5	9	0	0	0	15	7.65
SSE	2	10	12	0	0	0	24	7.51
S	2	3	7	0	0	0	12	8.18
SSW	1	3	5	1	0	0	10	8.79
SW	3	6	7	2	0	0	18	7.77
WSW	2	7	8	2	0	0	19	8.68
W	4	1	2	0	0	0	7	4.88
WNW	3	0	0	0	0	0	3	2.76
NW	1	2	0	0	0	0	3	4.77
NNW	2	4	3	5	1	0	15	10.44
Total	26	85	73	72	17	0	273	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 10
Hours of No Stability Class : 10
Total hours of observation : 770

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: E delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	1	6	4	0	0	0	11	7.56
NNE	4	1	3	0	1	0	9	7.58
NE	4	4	5	0	0	0	13	6.31
ENE	1	4	1	0	0	0	6	5.39
E	2	2	0	0	0	0	4	4.69
ESE	1	2	2	0	0	0	5	6.74
SE	1	4	1	0	0	0	6	6.50
SSE	1	3	1	0	0	0	5	6.04
S	5	5	8	0	0	0	18	6.65
SSW	5	17	9	0	0	0	31	6.31
SW	10	14	6	0	0	0	30	5.68
WSW	3	23	13	0	0	0	39	6.94
W	4	19	6	0	0	0	29	6.37
WNW	4	7	0	0	0	0	11	4.69
NW	4	1	0	0	0	0	5	2.67
NNW	4	4	0	0	0	0	8	3.86
Total	54	116	59	0	1	0	230	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 10
Hours of No Stability Class : 10
Total hours of observation : 770

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: F delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	2	0	0	0	0	2	6.22
NNE	0	4	0	0	0	0	4	4.69
NE	1	0	0	0	0	0	1	2.43
ENE	0	2	0	0	0	0	2	5.36
E	0	1	0	0	0	0	1	6.38
ESE	1	1	0	0	0	0	2	4.32
SE	0	4	0	0	0	0	4	5.72
SSE	0	1	0	0	0	0	1	5.30
S	1	11	3	0	0	0	15	6.32
SSW	3	6	0	0	0	0	9	4.49
SW	10	3	0	0	0	0	13	3.53
WSW	4	3	0	0	0	0	7	3.91
W	3	3	0	0	0	0	6	3.97
WNW	2	2	0	0	0	0	4	3.87
NW	3	1	0	0	0	0	4	2.82
NNW	1	4	0	0	0	0	5	4.30
Total	29	48	3	0	0	0	80	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 10
Hours of No Stability Class : 10
Total hours of observation : 770

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class: G delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	0	0	0	0	0	0	0	0.00
NNE	0	0	0	0	0	0	0	0.00
NE	1	1	0	0	0	0	2	3.65
ENE	0	0	0	0	0	0	0	0.00
E	1	0	0	0	0	0	1	1.35
ESE	1	0	0	0	0	0	1	2.53
SE	1	0	0	0	0	0	1	2.87
SSE	3	2	0	0	0	0	5	3.42
S	0	3	0	0	0	0	3	5.83
SSW	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0.00
WSW	4	1	0	0	0	0	5	2.84
W	3	0	0	0	0	0	3	2.37
WNW	4	0	0	0	0	0	4	2.52
NW	2	0	0	0	0	0	2	2.91
NNW	2	0	0	0	0	0	2	3.11
Total	22	7	0	0	0	0	29	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 0
Hours of Missing Data for All : 10
Hours of No Stability Class : 10
Total hours of observation : 770

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 4- 1 00:00 to 99- 6-30 23:00
Stability Class:ALL delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
N	2	13	5	9	0	0	29	9.64
NNE	7	10	5	37	22	9	90	15.89
NE	8	9	7	18	2	0	44	10.92
ENE	1	14	6	2	0	0	23	7.69
E	3	19	9	4	0	0	35	8.13
ESE	4	14	6	1	0	0	25	6.51
SE	3	13	10	0	0	0	26	6.90
SSE	6	17	13	0	0	0	36	6.63
S	8	23	20	0	0	0	51	6.94
SSW	9	26	16	1	0	0	52	6.64
SW	24	29	27	6	0	0	86	7.04
WSW	13	47	42	9	0	0	111	7.94
W	15	35	11	5	0	0	66	6.52
WNW	14	13	3	0	0	0	30	4.73
NW	10	11	2	0	0	0	23	4.62
NNW	10	14	3	5	1	0	33	6.95
Total	137	307	185	97	25	9	760	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 10
Hours of No Stability Class : 10
Total hours of observation : 770

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: A delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: B delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: C delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: D delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: E delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: F delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class: G delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99- 7- 1 00:00 to 99- 9-30 23:00
Stability Class:ALL delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 for All : 0
Hours of No Stability Class : 0
Total hours of observation : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: A delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: B delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: C delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: D delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: E delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: F delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class: G delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 : 0

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 00-03-23
Data Period : 99-10- 1 00:00 to 99-12-31 23:00
Stability Class:ALL delta T/ delta z 61->10 m Delta T With Substitution
Wind Sensor Height : 10 meter +++ Batch Release Times Only +++
Hours at Each Wind Direction and Speed

Wind Direction	Wind Speed (miles/hour) 0.75- <4	4- <8	8- <13	13- <19	19- 24	>24	Total'	Mean Speed
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 for All : 0
Hours of No Stability Class : 0
Total hours of observation : 0