VIRGIL C. SUMMER
JENKINSVILLE, SOUTH CAROLINA

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

FOR THE OPERATING PERIOD
JANUARY 1, 2000 - DECEMBER 31, 2000

APRIL 2001

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ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT

JANUARY – DECEMBER, 2000

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 2000 is presented in Section G and Tables 7 and 8. There were no changes made to the Offsite Dose Calculation Manual (ODCM) during the 12-month period. 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 ($\bar{E}$) 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 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.

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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 one (1) waste gas decay tank (WGDT) release, 1.3 days of 6-inch Reactor Building purge releases, 78.8 days of 36-inch Reactor Building purge releases and a continuous 12 month Main Plant vent release. There was no Oil Incineration in 2000. 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 4.56E-5 and 2.62E-5 mrad for gamma and beta, respectively, during the fourth quarter. The maximum quarterly organ dose attributed to the releases was 1.97E-3 mrem for the fourth quarter. Cumulative annual dose was 4.56E-5 mrad, 2.63E-5 mrad and 1.97E-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 ~~308~~ 333 Waste Monitor Tank batch releases, ~~4~~ Condensate Backwash (36) Receiver Tank batch releases, (one) 1 NaOH batch release, 17.8 days of Steam Generator Blowdown release and a continuous Turbine Building Sump release.

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 2.05E-3 mrem during the first quarter. The highest organ dose was 2.09E-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 5.16E-03 mrem for the total body and 5.47E-3 mrem for the GI-LLI (maximum annual organ). The GI-LLI was the maximum exposed organ for the first and fourth quarters. The Liver was the maximum exposed organ for the second and third 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 2000 quarterly dose rates did not differ significantly from the pre-operational or 1999 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 2.14E-6 and 1.24E-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 2000 the plant had no abnormal releases.

G. Meteorology

The meteorology data for 2000 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 90.2%. Primary variable recovery rates were as follows: wind direction (10 m) - 90.4%, wind speed (10 m) - 91.5%, and differential temperature (61 - 10 m) - 95.0%.

H. Offsite Dose Calculation Manual

The Virgil C. Summer Nuclear Station (VCSNS) Offsite Dose Calculation Manual (ODCM) was not revised during the affected 12 month period.

I. Oil Incineration

There was no Oil Incineration during 2000.

J. Offsite Dose Calculation Manual Reportable Incidences

Liquid Radiation Monitor RM-L9 was out of service from 8/15/2000 until 10/11/2000. The monitor failed to properly perform a source check. It was determined that the detector had failed. A new detector was ordered to replace the failed detector. No compensatory measures were required due to RM-L5 remaining in service during this time.

Liquid Radiation Monitor RM-L7 was out of service from 7/18/2000 until 12/18/2000. This monitor failed the calibration due to a change in the acceptance criteria. A new detector was ordered to replace the failed detector. The new detector failed the acceptance criteria. The calibration procedure was changed to new acceptance criteria based on continuing work

for monitor calibrations. The old detector would have passed the acceptance criteria but failed in the process of calibration. The new detector was then calibrated and passed the acceptance criteria. There were no effluents released from this pathway during the out of service period.

The main contributing factor to these radiation monitors being out of service for greater than thirty days was the unavailability of spare detectors.

Flow transmitter IFT04811 was placed out of service on 10/13/2000 due to a recorder problem and remains out of service. This equipment has had a high and repetitive failure rate. The transmitter continues to function and provide information to the plant computer system. An engineering request was processed to replace the recorder with a new type and should be in place by 4/13/2001.

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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 (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

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Supplemental Information

5. Batch Releases:

a. Gaseous:

1. Number of batch releases: 1 (1)

2. Total time period for batch releases: 451 min (278)

3. Maximum time period for a batch release: 451 min (278)

4. Average time period for a batch release: 451 min (278)

5. Minimum time period for a batch release: 451 min (278)

b. Liquid:

1. Number of batch releases:

60 For first quarter, 2000 (122)
69 For second quarter, 2000 (66)
94 For third quarter, 2000 (63)
90 For fourth quarter, 2000 (82)

2. Total time period for batch releases:

4.60E+3 min. for first quarter, 2000 8764 8.76E+3
5.24E+3 min. for second quarter, 2000 4798 4.80E+3
6.98E+3 min. for third quarter, 2000 4828 4.83E+3
6.50E+3 min. for fourth quarter 2000 6449 6.45E+3

3. Maximum time period for a batch release:

8.70E+1 min. for first quarter, 2000 120 1.20E+2
8.30E+1 min. for second quarter, 2000 86 8.60E+1
8.30E+1 min. for third quarter, 2000 82 8.20E+1
9.00E+1 min. for fourth quarter, 2000 86 8.60E+1

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Supplemental Information

4. Average time period for batch releases:

7.66E+1 min. for first quarter, 2000 71.84 7.18E+1
7.60E+1 min. for second quarter, 2000 72.70 7.27E+1
7.42E+1 min. for third quarter, 2000 76.63 7.66E+1
7.22E+1 min. for fourth quarter, 2000 78.65 7.87E+1

5. Minimum time period for a batch release:

6.80E+1 min. for first quarter, 2000 4 4.00E+0
1.00E+0 min. for second quarter, 2000 1 1.00E+0
6.10E+1 min. for third quarter, 2000 70 7.00E+1
1.20E+1 min. for fourth quarter, 2000 72 7.20E+1

6. Average stream flow during periods of release of effluent into a flowing stream for 2000:

4.56E+6 gpm for first quarter, 2000 64.32 6.43E+1
8.06E+6 gpm for second quarter, 2000 57.66 5.77E+1
8.11E+6 gpm for third quarter, 2000 54.98 5.50E+1
6.19E+6 gpm for fourth quarter, 2000 54.23 5.42E+1

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

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Virgil C. Summer Nuclear Station
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Table 1
GASEOUS AND LIQUID DOSES

ODCM Section	GASEOUS LIMITS	FIRST QUARTER DOSE	FIRST QUARTER Percent of Limit	SECOND QUARTER DOSE	SECOND QUARTER Percent of Limit	THIRD QUARTER DOSE	THIRD QUARTER Percent of Limit	FOURTH QUARTER DOSE	FOURTH QUARTER Percent of Limit	TOTAL ANNUAL DOSE
1.[illegible]3.1.a,b	5 mrad gamma / qtr.	0.00E+00 mrad	0.00E+00	2.22E-08 mrad	4.44E-07	0.00E+00 mrad	0.00E+00	4.56E-05 mrad	9.11E-04	4.56E-05
	10 mrad gamma / yr.		0.00E+00		2.22E-07 *		2.22E-07 *		4.56E-04 *	
1.[illegible]3.1.a,b	10 mrad beta / qtr.	0.00E+00 mrad	0.00E+00	6.61E-08 mrad	6.61E-07	0.00E+00 mrad	0.00E+00	2.62E-05 mrad	2.62E-04	2.63E-05
	20 mrad beta / yr.		0.00E+00		3.30E-07 *		3.30E-07 *		1.31E-04 *	
1.[illegible]4.1.a,b	7.5 mrem organ/qtr	0.00E+00 mrem**	0.00E+00	0.00E+00 mrem**	0.00E+00	0.00E+00 mrem**	0.00E+00	1.97E-03 mrem**	2.63E-02	1.97E-03
	15 mrem organ/yr.		0.00E+00		0.00E+00 *		0.00E+00 *		1.32E-02 *	
	LIQUID LIMITS									
1.[illegible]3.1a,b	1.5 mrem / qtr.	2.05E-03 mrem	1.37E-01	1.73E-03 mrem	1.15E-01	1.06E-03 mrem	7.10E-02	3.14E-04 mrem	2.10E-02	5.16E-03
	3 mrem / yr.		6.84E-02		1.26E-01 *		1.62E-01 *		1.72E-01 *	
1.[illegible]3.1a,b	5 mrem organ/qtr***	2.09E-03 mrem	4.18E-02	1.75E-03 mrem	3.50E-02	1.10E-03 mrem	2.20E-02	6.21E-04 mrem	1.24E-02	5.47E-03
	10 mrem organ/yr.		2.09E-02		3.81E-02 *		4.90E-02 *		5.47E-02 *	

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

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Table 2
Gaseous Effluents Summation of All Releases

	UNITS	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	2000 TOTAL	EST. ERROR %
A. Fission & Activation Gases							
1. Total release	Ci	0.00E+00	3.15E-04	0.00E+00	7.75E-02	7.78E-02	28.9
2. Average release rate	uCi / sec	0.00E+00	4.01E-05	0.00E+00	9.74E-03	2.46E-03	
3. Percent ODCM Qtr. gamma air dose limit	%	0.00E+00	4.44E-07	0.00E+00	9.11E-04	N/A	
4. Percent ODCM annual gamma air dose limit	%	0.00E+00	2.22E-07 *	2.22E-07 *	4.56E-04 *	4.56E-04 *	
5. Percent ODCM Qtr. beta air dose limit	%	0.00E+00	6.61E-07	0.00E+00	2.62E-04	N/A	
6. Precent ODCM annual beta air dose limit	%	0.00E+00	3.30E-07 *	3.30E-07 *	1.31E-04 *	1.31E-04 *	
B. Iodines							
1.Total iodine - 131	Ci	0.00E+00	0.00E+00	0.00E+00	6.95E-06	6.95E-06	49.9
2. Average release	uCi / sec	0.00E+00	0.00E+00	0.00E+00	8.75E-07	2.20E-07	
C. Particulates							
1. Particulates with half - lifes > 8 days	Ci	0.00E+00	0.00E+00	0.00E+00	8.19E-05	8.19E-05	52.9
2. Average release rate	uCi / sec	0.00E+00	0.00E+00	0.00E+00	1.03E-05	2.59E-06	
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	0.00E+00	0.00E+00	0.00E+00	3.35E+00	3.35E+00	67.7
2. Average release rate	uCi / sec	0.00E+00	0.00E+00	0.00E+00	4.21E-01	1.06E-01	
E. Organ Dose (from B,C,and D)							
1. Percent ODCM Qtr. organ dose limit	%	0.00E+00	0.00E+00	0.00E+00	2.63E-02	N/A	
2. Percent ODCM annual organ dose limit	%	0.00E+00	0.00E+00	0.00E+00	1.32E-02 *	1.32E-02 *	

* Cumulative

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TABLE 3
GASEOUS EFFLUENTS -- GROUND-LEVEL RELEASES

		Continuous Mode					Batch Mode				
Nuclides Released	Units	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	0	0	0	5.50E-02	5.50E-02	0	3.15E-04	0	0	3.15E-04
Xenon-135	Ci	0	0	0	0	0	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	0	0	0	2.24E-02	2.24E-02	0	0	0	0	0
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total for Period	Ci	0	0	0	7.74E-02	7.74E-02	0	3.15E-04	0	0	3.15E-04
2 Iodines and other halogens											
Iodine-131	Ci	0	0	0	6.95E-06	6.95E-06	0	0	0	0	0
Iodine-132	Ci	0	0	0	3.07E-04	3.07E-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	0	0	3.14E-04	3.14E-04	0	0	0	0	0
3 Particulates											
Cromium-51	Ci	0	0	0	1.63E-05	1.63E-05	0	0	0	0	0
Manganese-54	Ci	0	0	0	2.74E-06	2.74E-06	0	0	0	0	0
Cobalt-60	Ci	0	0	0	4.68E-06	4.68E-06	0	0	0	0	0
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
Niobium-95	Ci	0	0	0	2.45E-06	2.45E-06	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	0	0	5.57E-05	5.57E-05	0	0	0	0	0
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total for Period	Ci	0	0	0	8.19E-05	8.19E-05	0	0	0	0	0

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TABLE 4
Liquid Effluents Summation of All Releases

	UNITS	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	2000 TOTAL	EST. ERROR %
A. Fission & Activation Products							
1. Total release	Ci	7.70E-03	6.22E-03	2.26E-02	2.35E-02	6.01E-02	22.82
2. Average diluted concentration	uCi/ml	3.02E-11	1.51E-11	4.50E-11	9.05E-11	4.20E-11	
B. Tritium							
1. Total release	Ci	1.72E+02	2.22E+02	1.45E+02	3.95E+01	5.79E+02	18.55
2. Average diluted concentration	uCi/ml	6.75E-07	5.40E-07	2.88E-07	1.52E-07	4.05E-07	
C. Dissolved and entrained gases							
1. Total release	Ci	4.47E-04	2.14E-03	1.34E-02	6.22E-04	1.66E-02	39.8
2. Average diluted concentration	uCi/ml	1.75E-12	5.19E-12	2.66E-11	2.39E-12	1.16E-11	
3.Percent ODCM limit	%	8.76E-07	2.60E-06	1.33E-05	1.20E-06	5.80E-06	
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	%	1.37E-01	1.15E-01	7.10E-02	2.10E-02	N/A	
2. Percent of ODCM annual total body limit	%	6.84E-02	1.26E-01 *	1.62E-01 *	1.72E-01 *	1.72E-01 *	
3. Percent of ODCM Qtr max. organ limit**	%	4.18E-02	3.50E-02	2.20E-02	1.24E-02	N/A	
4. Percent of ODCM annual max. organ limit**	%	2.09E-02	3.81E-02 *	4.90E-02 *	5.47E-02 *	5.47E-02 *	
E. Volume of waste released (undiluted)	liters	1.48E+07	1.22E+07	1.88E+07	4.04E+07	8.62E+07	3.0
F. Volume of dilution water	liters	2.55E+11	4.12E+11	5.03E+11	2.60E+11	1.43E+12	4.3

* Cumulative

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

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 4- 1 00:00 to 0- 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	1	1	0	0	0	2	9.28
NNE	0	1	0	0	0	0	1	5.66
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	1	0	0	1	15.07
SSW	0	1	6	0	0	0	7	10.05
SW	0	10	22	1	0	0	33	9.30
WSW	0	32	32	3	0	0	67	8.66
W	0	11	10	2	0	0	23	8.89
WNW	0	10	3	0	0	0	13	7.08
NW	0	3	2	0	0	0	5	8.50
NNW	0	1	1	1	0	0	3	9.95
Total	0	70	77	8	0	0	155	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	2
Hours of Missing Data for All	:	241
Hours of No Stability Class	:	87
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 4- 1 00:00 to 0- 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	0	1	0	0	0	0	1	6.70
NNE	0	0	0	0	0	0	0	0.00
NE	0	1	0	0	1	0	2	12.50
ENE	0	0	0	0	0	0	0	0.00
E	0	1	0	0	0	0	1	5.98
ESE	0	0	1	0	0	0	1	9.77
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	7.77
SSW	0	0	9	0	0	0	9	9.80
SW	0	19	19	0	0	0	38	8.30
WSW	0	19	6	1	0	0	26	7.40
W	0	7	3	0	0	0	10	7.87
WNW	0	2	1	0	0	0	3	9.03
NW	0	0	3	1	0	0	4	11.64
NNW	0	1	0	0	0	0	1	5.68
Total	0	52	42	2	1	0	97	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	2
Hours of Missing Data for All	:	241
Hours of No Stability Class	:	87
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 4- 1 00:00 to 0- 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	0	0	1	0	0	1	2	17.56
NNE	0	0	0	0	1	0	1	22.79
NE	0	1	2	5	3	0	11	15.85
ENE	0	3	1	1	0	0	5	9.01
E	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	1	1	0	0	0	2	9.30
SSE	0	1	1	1	0	0	3	10.24
S	0	2	1	0	0	0	3	7.78
SSW	0	1	9	0	0	0	10	10.41
SW	0	9	10	2	0	0	21	8.74
WSW	0	18	3	0	0	0	21	6.48
W	0	5	2	0	0	0	7	7.66
WNW	0	5	0	0	0	0	5	6.11
NW	0	4	3	0	0	0	7	8.93
NNW	0	1	2	2	0	0	5	12.31
Total	0	51	36	11	4	1	103	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	9
Hours of Missing Data for All	:	241
Hours of No Stability Class	:	87
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 4- 1 00:00 to 0- 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	1	22	21	5	4	0	53	9.45
NNE	0	33	12	10	0	0	55	8.21
NE	0	29	28	34	2	0	93	11.14
ENE	0	24	17	2	1	0	44	8.13
E	0	17	3	0	0	0	20	6.49
ESE	0	14	4	0	0	0	18	7.03
SE	0	10	4	0	0	0	14	7.32
SSE	0	22	18	1	0	0	41	8.13
S	0	19	23	9	0	0	51	9.52
SSW	1	31	30	9	0	0	71	9.04
SW	0	90	36	2	0	0	128	7.07
WSW	0	38	9	0	0	0	47	6.35
W	0	23	9	0	0	0	32	7.15
WNW	0	9	3	0	0	0	12	7.06
NW	0	9	12	3	0	0	24	9.33
NNW	0	7	13	7	0	0	27	10.64
Total	2	397	242	82	7	0	730	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 81
Hours of Missing Data for All : 241
Hours of No Stability Class : 87
Total hours of observation : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 4- 1 00:00 to 0- 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	0	9	0	0	0	0	9	5.57
NNE	0	12	1	0	0	0	13	5.75
NE	0	7	0	0	0	0	7	5.87
ENE	0	9	2	1	0	0	12	8.43
E	0	5	1	0	0	0	6	7.26
ESE	0	8	2	0	0	0	10	6.72
SE	0	14	2	0	0	0	16	6.69
SSE	0	29	7	1	0	0	37	6.79
S	1	51	39	1	0	0	92	7.52
SSW	3	89	47	0	0	0	139	7.20
SW	2	95	15	0	0	0	112	6.15
WSW	0	42	0	0	0	0	42	5.51
W	0	25	0	0	0	0	25	5.69
WNW	2	24	1	0	0	0	27	5.62
NW	1	22	2	0	0	0	25	5.79
NNW	1	8	4	0	0	0	13	7.20
Total	10	449	123	3	0	0	585	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 48
Hours of Missing Data for All : 241
Hours of No Stability Class : 87
Total hours of observation : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 4- 1 00:00 to 0- 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	0	0	0	0	0	0	0	0.00
NNE	0	0	1	0	0	0	1	8.89
NE	0	0	0	0	0	0	0	0.00
ENE	0	2	0	0	0	0	2	6.02
E	0	0	0	0	0	0	0	0.00
ESE	0	1	0	0	0	0	1	6.11
SE	0	7	0	0	0	0	7	6.32
SSE	0	28	2	0	0	0	30	6.54
S	1	30	1	0	0	0	32	5.83
SSW	0	37	2	0	0	0	39	6.09
SW	1	31	0	0	0	0	32	5.48
WSW	1	22	0	0	0	0	23	5.30
W	1	17	0	0	0	0	18	5.28
WNW	0	9	0	0	0	0	9	5.11
NW	0	5	0	0	0	0	5	5.39
NNW	0	2	0	0	0	0	2	6.71
Total	4	191	6	0	0	0	201	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	10
Hours of Missing Data for All	:	241
Hours of No Stability Class	:	87
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 4- 1 00:00 to 0- 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	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	3	0	0	0	8	7.48
S	0	18	0	0	0	0	18	5.69
SSW	1	12	0	0	0	0	13	5.04
SW	1	6	1	0	0	0	8	5.32
WSW	0	12	0	0	0	0	12	4.88
W	0	10	0	0	0	0	10	5.56
WNW	0	2	0	0	0	0	2	5.11
NW	0	1	0	0	0	0	1	6.14
NNW	0	0	0	0	0	0	0	0.00
Total	2	66	4	0	0	0	72	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	2
Hours of Missing Data for All	:	241
Hours of No Stability Class	:	87
Total hours of observation	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 4- 1 00:00 to 0- 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	1	33	23	5	4	1	67	9.13
NNE	0	46	14	10	1	0	71	7.94
NE	0	38	30	39	6	0	113	11.29
ENE	0	38	20	4	1	0	63	8.19
E	0	23	4	0	0	0	27	6.64
ESE	0	23	7	0	0	0	30	6.99
SE	0	32	7	0	0	0	39	6.98
SSE	0	85	31	3	0	0	119	7.32
S	2	121	64	11	0	0	198	7.64
SSW	5	171	103	9	0	0	288	7.67
SW	4	260	103	5	0	0	372	7.03
WSW	1	183	50	4	0	0	238	6.80
W	1	98	24	2	0	0	125	6.87
WNW	2	61	8	0	0	0	71	6.23
NW	1	44	22	4	0	0	71	7.79
NNW	1	20	20	10	0	0	51	9.64
Total	18	1276	530	106	12	1	1943	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 241
Hours of No Stability Class : 87
Total hours of observation : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 7- 1 00:00 to 0- 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	1	1	0	0	2	13.20
NNE	0	0	1	0	0	0	1	12.37
NE	0	0	0	2	0	0	2	14.68
ENE	0	0	4	0	0	0	4	11.09
E	0	1	6	0	0	0	7	10.78
ESE	0	0	1	0	0	0	1	9.59
SE	0	2	1	0	0	0	3	7.07
SSE	0	1	1	0	0	0	2	7.07
S	0	0	7	0	0	0	7	9.29
SSW	0	0	3	0	0	0	3	10.73
SW	0	9	6	2	0	0	17	8.49
WSW	0	12	9	0	0	0	21	8.67
W	0	1	0	0	0	0	1	4.90
WNW	0	3	0	0	0	0	3	6.18
NW	0	4	1	0	0	0	5	6.85
NNW	0	1	0	0	0	0	1	6.52
Total	0	34	41	5	0	0	80	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	23
Hours of Missing Data for All	:	439
Hours of No Stability Class	:	232
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 7- 1 00:00 to 0- 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	0	1	1	0	0	0	2	7.10
NNE	0	0	0	0	0	0	0	0.00
NE	0	5	1	1	0	0	7	7.84
ENE	0	1	1	0	0	0	2	7.74
E	0	1	1	0	0	0	2	8.28
ESE	0	0	1	0	0	0	1	8.38
SE	0	0	1	0	0	0	1	8.41
SSE	0	0	1	0	0	0	1	9.40
S	0	1	2	0	0	0	3	7.99
SSW	0	3	3	0	0	0	6	7.79
SW	0	6	6	0	0	0	12	8.11
WSW	1	3	1	0	0	0	5	6.65
W	0	4	3	1	0	0	8	8.23
WNW	0	2	1	0	0	0	3	6.95
NW	2	9	0	0	0	0	11	5.92
NNW	0	1	1	0	0	0	2	7.03
Total	3	37	24	2	0	0	66	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	15
Hours of Missing Data for All	:	439
Hours of No Stability Class	:	232
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 7- 1 00:00 to 0- 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	0	5	8	3	0	0	16	9.65
NNE	1	5	3	0	1	2	12	10.49
NE	0	5	5	12	8	0	30	14.68
ENE	0	5	4	7	1	0	17	12.42
E	0	2	3	0	0	0	5	7.68
ESE	0	0	3	0	0	0	3	8.79
SE	0	4	2	0	0	0	6	8.07
SSE	0	6	0	0	0	0	6	6.79
S	0	1	3	0	0	0	4	8.46
SSW	0	7	3	0	0	0	10	6.93
SW	2	11	4	0	0	0	17	6.79
WSW	2	7	1	0	0	0	10	5.73
W	0	3	0	0	0	0	3	4.78
WNW	1	7	0	0	0	0	8	5.04
NW	2	3	0	0	0	0	5	4.93
NNW	1	4	4	0	0	0	9	7.90
Total	9	75	43	22	10	2	161	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	12
Hours of Missing Data for All	:	439
Hours of No Stability Class	:	232
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 7- 1 00:00 to 0- 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	3	26	22	5	1	0	57	8.53
NNE	10	53	28	26	1	0	118	8.95
NE	3	29	59	68	4	0	163	11.79
ENE	2	37	66	33	0	0	138	10.48
E	3	42	26	0	0	0	71	7.44
ESE	2	28	26	0	0	0	56	7.41
SE	2	29	7	2	0	0	40	6.67
SSE	1	16	2	0	0	0	19	5.76
S	5	20	6	0	0	0	31	6.20
SSW	1	19	12	1	0	0	33	7.53
SW	3	31	14	0	0	0	48	7.03
WSW	4	18	1	0	0	0	23	5.41
W	1	8	1	0	0	0	10	5.46
WNW	3	19	1	0	0	0	23	5.13
NW	2	14	2	0	0	0	18	5.34
NNW	3	17	7	1	0	0	28	6.31
Total	48	406	280	136	6	0	876	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 89
Hours of Missing Data for All : 439
Hours of No Stability Class : 232
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 7- 1 00:00 to 0- 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	0	2	4	0	0	0	6	8.61
NNE	2	6	2	0	0	0	10	6.05
NE	1	5	1	0	0	0	7	6.39
ENE	2	2	3	0	0	0	7	7.53
E	2	6	12	0	0	0	20	7.93
ESE	4	14	2	0	0	0	20	6.01
SE	2	11	3	0	0	0	16	5.95
SSE	13	22	1	0	0	0	36	4.86
S	11	28	5	0	0	0	44	5.45
SSW	10	52	15	0	0	0	77	6.26
SW	13	42	7	0	0	0	62	5.54
WSW	5	22	0	0	0	0	27	4.61
W	4	23	0	2	0	0	29	5.43
WNW	2	6	1	0	0	0	9	5.27
NW	1	8	0	0	0	0	9	4.86
NNW	1	4	3	0	0	0	8	6.49
Total	73	253	59	2	0	0	387	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 45
Hours of Missing Data for All : 439
Hours of No Stability Class : 232
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 7- 1 00:00 to 0- 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	1	0	0	0	0	1	5.76
ESE	1	2	1	0	0	0	4	6.25
SE	2	2	0	0	0	0	4	3.61
SSE	4	10	4	0	0	0	18	6.05
S	7	18	4	0	0	0	29	5.44
SSW	12	16	1	1	0	0	30	5.00
SW	6	2	0	0	0	0	8	3.01
WSW	5	2	5	1	0	0	13	6.43
W	7	2	1	0	0	0	10	3.90
WNW	3	5	0	0	0	0	8	3.81
NW	0	5	0	1	0	0	6	6.19
NNW	2	1	0	0	0	0	3	3.42
Total	49	66	16	3	0	0	134	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	19
Hours of Missing Data for All	:	439
Hours of No Stability Class	:	232
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 7- 1 00:00 to 0- 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	0	0	0	0	0	0	0.00
S	1	7	0	0	0	0	8	5.15
SSW	2	2	1	0	0	0	5	4.57
SW	4	7	2	0	0	0	13	4.89
WSW	7	7	1	0	0	0	15	4.22
W	6	3	2	0	0	0	11	4.81
WNW	6	3	1	0	0	0	10	4.53
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	26	29	7	0	0	0	62	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	7
Hours of Missing Data for All	:	439
Hours of No Stability Class	:	232
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 7- 1 00:00 to 0- 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	3	34	36	9	1	0	83	8.83
NNE	13	64	34	26	2	2	141	8.90
NE	4	44	66	83	12	0	209	11.92
ENE	4	45	78	40	1	0	168	10.54
E	5	53	48	0	0	0	106	7.77
ESE	7	44	34	0	0	0	85	7.11
SE	6	48	14	2	0	0	70	6.49
SSE	18	55	9	0	0	0	82	5.58
S	24	75	27	0	0	0	126	5.98
SSW	25	99	39	2	0	0	165	6.43
SW	28	108	40	2	0	0	178	6.37
WSW	24	71	19	1	0	0	115	5.91
W	18	44	7	3	0	0	72	5.40
WNW	15	45	4	0	0	0	64	5.02
NW	7	43	3	1	0	0	54	5.57
NNW	7	28	15	1	0	0	51	6.48
Total	208	900	473	170	16	2	1769	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 439
Hours of No Stability Class : 232
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0-10- 1 00:00 to 0-12-31 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	0	1	0	0	0	1	9.01
NNE	0	1	1	0	0	0	2	7.73
NE	2	1	8	0	0	0	11	9.09
ENE	0	1	5	2	0	0	8	11.33
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	1	0	0	0	0	1	6.91
S	1	3	2	0	0	0	6	6.73
SSW	1	0	1	0	0	0	2	7.39
SW	0	1	2	0	0	0	3	7.98
WSW	0	7	5	0	0	0	12	7.59
W	0	6	3	2	0	0	11	8.68
WNW	0	2	5	0	0	0	7	7.80
NW	0	3	0	0	0	0	3	6.30
NNW	0	0	0	0	0	0	0	0.00
Total	4	26	33	4	0	0	67	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	0
Hours of Missing Data for All	:	162
Hours of No Stability Class	:	110
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0-10- 1 00:00 to 0-12-31 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	0	1	4	0	0	5	16.00
NNE	0	0	0	1	0	0	1	16.63
NE	0	1	6	0	0	0	7	10.46
ENE	0	2	5	2	0	0	9	10.33
E	0	1	0	0	0	0	1	5.55
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	7.89
SSW	1	0	0	0	0	0	1	3.75
SW	1	6	0	0	0	0	7	5.05
WSW	1	5	4	0	0	0	10	7.45
W	1	3	1	2	0	0	7	8.30
WNW	2	3	0	0	0	0	5	4.56
NW	1	7	1	0	0	0	9	6.28
NNW	1	4	0	1	0	0	6	6.20
Total	8	33	18	10	0	0	69	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	1
Hours of Missing Data for All	:	162
Hours of No Stability Class	:	110
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0-10- 1 00:00 to 0-12-31 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	1	1	0	6	1	0	9	13.76
NNE	0	1	1	15	3	0	20	16.25
NE	2	3	9	12	4	0	30	13.78
ENE	1	4	19	5	0	0	29	10.20
E	1	3	1	0	0	0	5	6.02
ESE	0	0	0	0	0	0	0	0.00
SE	0	1	2	0	0	0	3	7.94
SSE	0	1	0	0	0	0	1	7.31
S	0	1	0	0	0	0	1	6.73
SSW	0	1	0	0	0	0	1	6.88
SW	1	8	0	0	0	0	9	4.94
WSW	5	3	2	0	0	0	10	5.21
W	0	4	3	0	0	0	7	7.28
WNW	2	6	1	0	0	0	9	5.09
NW	0	3	0	0	0	0	3	6.63
NNW	6	5	0	0	1	0	12	5.50
Total	19	45	38	38	9	0	149	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 7
Hours of Missing Data for All : 162
Hours of No Stability Class : 110
Total hours of observation : 2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0-10- 1 00:00 to 0-12-31 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	20	15	12	5	0	0	52	6.58
NNE	16	26	37	24	0	0	103	9.10
NE	18	32	81	52	0	0	183	10.17
ENE	5	26	62	15	0	0	108	9.52
E	3	19	14	2	0	0	38	7.44
ESE	4	11	3	0	0	0	18	5.62
SE	5	9	1	0	0	0	15	5.19
SSE	5	9	0	0	0	0	14	4.55
S	6	17	0	0	0	0	23	5.00
SSW	9	16	2	7	0	0	34	7.36
SW	13	20	5	0	0	0	38	5.12
WSW	31	30	13	1	0	0	75	5.59
W	12	34	7	1	0	0	54	5.64
WNW	28	8	2	0	0	0	38	3.52
NW	8	18	2	0	0	0	28	5.21
NNW	18	10	2	4	0	0	34	5.51
Total	201	300	243	111	0	0	855	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	25
Hours of Missing Data for All	:	162
Hours of No Stability Class	:	110
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0-10- 1 00:00 to 0-12-31 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	7	5	1	0	0	0	13	4.35
NNE	7	2	2	0	0	0	11	4.91
NE	5	13	4	0	0	0	22	6.11
ENE	5	13	2	0	0	0	20	5.84
E	11	11	1	0	0	0	23	4.61
ESE	7	6	0	0	0	0	13	3.96
SE	3	5	0	0	0	0	8	4.47
SSE	7	3	0	0	0	0	10	3.81
S	6	5	1	1	0	0	13	5.49
SSW	10	5	0	2	1	0	18	5.88
SW	19	6	0	0	0	0	25	3.42
WSW	26	41	7	1	0	0	75	5.32
W	23	50	2	0	0	0	75	4.77
WNW	12	7	0	0	0	0	19	3.50
NW	6	8	0	0	0	0	14	4.04
NNW	9	5	5	0	0	0	19	5.48
Total	163	185	25	4	1	0	378	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data : 13
Hours of Missing Data for All : 162
Hours of No Stability Class : 110
Total hours of observation : 2208

ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT
JANUARY - DECEMBER, 2000

Virgil C. Summer Nuclear Station
South Carolina Electric & Gas

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
Strontium-89	Ci	0	0	0	0	0	0	0	0	0	0
Strontium-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	1.25E-04	2.28E-04	0	3.53E-04
Iodine-131	Ci	0	0	0	0	0	0	5.58E-07	4.66E-06	5.70E-07	5.79E-06
Cobalt-58	Ci	0	0	0	0	0	3.05E-04	1.05E-03	5.81E-04	5.14E-03	7.08E-03
Cobalt-60	Ci	0	0	0	0	0	1.17E-03	1.22E-03	1.82E-03	2.21E-03	6.42E-03
Iron-59	Ci	0	0	0	0	0	0	1.41E-06	0	2.15E-04	2.16E-04
Zinc-65	Ci	0	0	0	0	0	4.03E-06	0	0	3.06E-05	3.46E-05
Manganese-54	Ci	0	0	0	0	0	1.97E-04	1.27E-04	2.16E-04	3.77E-04	9.17E-04
Chromium-51	Ci	0	0	0	0	0	0	0	1.18E-05	4.23E-03	4.24E-03
Zirconium-Niobium-95	Ci	0	0	0	0	0	8.15E-06	0	4.21E-06	2.86E-04	2.98E-04
Technetium-99m	Ci	0	0	0	0	0	0	0	3.76E-06	3.09E-07	4.07E-06
Barium-Lanthanum-140	Ci	0	0	0	0	0	0	0	0	0	0
Other: Be-7	Ci	0	0	0	0	0	1.93E-05	0	0	0	1.93E-05
Na-24	Ci	0	0	0	0	0	0	0	1.57E-06	0	1.57E-06
Fe-55	Ci	0	0	0	0	0	4.43E-03	3.00E-03	1.96E-02	1.05E-02	3.75E-02
Co-57	Ci	0	0	0	0	0	4.12E-06	3.83E-05	2.54E-05	2.48E-05	9.26E-05
Ag-110m	Ci	0	0	0	0	0	0	8.44E-06	4.39E-06	8.77E-06	2.16E-05
Sn-117m	Ci	0	0	0	0	0	0	0	0	4.46E-06	4.46E-06
Sb-124	Ci	0	0	0	0	0	0	0	0	1.04E-05	1.04E-05
Sb-125	Ci	0	0	0	0	0	1.56E-03	6.51E-04	1.52E-04	1.93E-04	2.56E-03
Te-125m	Ci	0	0	0	0	0	0	0	0	2.81E-04	2.81E-04
I-133	Ci	0	0	0	0	0	0	0	3.23E-06	0	3.23E-06
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total for Period (above)	Ci	0	0	0	0	0	7.70E-03	6.22E-03	2.27E-02	2.35E-02	6.01E-02
Xenon-133	Ci	0	0	0	0	0	3.87E-04	1.86E-03	1.21E-02	6.22E-04	1.50E-02
Xenon-135	Ci	0	0	0	0	0	5.99E-05	2.17E-04	9.57E-04	0	1.23E-03
Other: Ar-41	Ci	0	0	0	0	0	0	8.09E-06	3.38E-05	0	4.19E-05
Kr-85m	Ci	0	0	0	0	0	0	4.21E-06	1.44E-05	0	1.86E-05
Xe-131m	Ci	0	0	0	0	0	0	1.20E-05	0	0	1.20E-05
Xe-133m	Ci	0	0	0	0	0	0	3.10E-05	2.33E-04	0	2.64E-04
Unidentified: None	Ci	0	0	0	0	0	0	0	0	0	0
Total Entrained Gases	Ci	0	0	0	0	0	4.47E-04	2.13E-03	1.33E-02	6.22E-04	1.65E-02

*Tritium not included. See Table 4 for tritium numbers

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	2000 Total	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m3 Ci	6.87 7.87E+01	3.5E+01
b. Dry compressible waste contaminated equip., etc.	m3 Ci	4.33 4.74E-01	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.	Fe-55	%	42.70
	Ni-63	%	40.4
	Co-60	%	10.0
	Mn-54	%	4.44
	Co-58	%	1.16
b.	Fe-55	%	58.0
	Ni-63	%	18.0
	Co-60	%	12.4
	Mn-54	%	4.59
	Co-58	%	3.12
	Nb-95	%	1.17
c.	None	%	N/A
d.	None	%	N/A

3A. Solid waste Disposition

Numbers of Shipments	Mode of Transportation	Destination
12*	Truck	Clive, Ut
2	Truck	Barnwell, S.C.

* Note: 12 are partial shipments of DAW from waste processor to Clive,Ut.

3B. Irradiated Fuel Shipments (Disposition)

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

TABLE 7

JOINT FREQUENCY DISTRIBUTION

BY QUARTER FOR 2000

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 1- 1 00:00 to 0- 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	0	2	0	0	0	0	2	6.02
NNE	0	1	0	0	0	0	1	5.64
NE	0	2	0	0	0	0	2	5.10
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	6.47
SSE	0	1	0	0	0	0	1	5.19
S	0	1	0	0	0	0	1	7.30
SSW	0	0	1	0	0	0	1	10.30
SW	0	2	5	1	0	0	8	9.66
WSW	0	5	9	2	0	0	16	9.88
W	0	1	4	0	0	0	5	8.86
WNW	0	4	0	0	0	0	4	7.11
NW	0	3	4	2	0	0	9	10.09
NNW	0	1	0	0	0	0	1	6.08
Total	0	24	23	5	0	0	52	

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 : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 1- 1 00:00 to 0- 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	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	7.60
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	12.29
SW	0	3	9	1	0	0	13	9.71
WSW	0	3	4	3	0	0	10	10.19
W	0	4	1	0	0	0	5	6.88
WNW	0	5	3	0	0	0	8	7.63
NW	0	2	5	0	0	0	7	8.85
NNW	0	0	1	2	0	0	3	14.93
Total	0	18	24	6	0	0	48	

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 : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 1- 1 00:00 to 0- 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	0	2	1	2	1	0	6	12.97
NNE	0	1	0	0	0	2	3	19.46
NE	0	2	1	0	0	2	5	14.52
ENE	0	1	1	1	0	0	3	11.35
E	0	0	2	0	0	0	2	11.00
ESE	0	0	0	0	0	0	0	0.00
SE	0	2	0	0	0	0	2	6.70
SSE	0	0	1	0	0	0	1	8.34
S	0	0	0	0	0	0	0	0.00
SSW	0	1	4	0	0	0	5	10.88
SW	0	7	8	0	0	0	15	8.18
WSW	0	5	8	1	0	0	14	9.66
W	0	5	3	1	0	0	9	8.43
WNW	0	7	1	0	0	0	8	6.74
NW	0	3	1	0	0	0	4	7.25
NNW	0	1	1	2	0	0	4	12.81
Total	0	37	32	7	1	4	81	

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	:	2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 1- 1 00:00 to 0- 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	0	27	19	6	1	0	53	8.93
NNE	0	39	35	18	6	3	101	10.81
NE	0	46	68	25	3	2	144	10.17
ENE	0	42	94	28	2	0	166	10.40
E	0	22	31	2	0	0	55	8.76
ESE	0	34	14	7	0	0	55	8.32
SE	0	12	3	3	1	0	19	8.94
SSE	0	19	3	0	0	0	22	6.85
S	0	16	20	0	0	0	36	8.12
SSW	0	20	18	7	0	0	45	9.46
SW	0	24	22	1	0	0	47	8.14
WSW	0	22	19	3	0	0	44	8.23
W	0	38	21	2	0	0	61	7.94
WNW	0	23	2	0	0	0	25	6.53
NW	1	36	9	1	0	0	47	6.95
NNW	0	12	18	18	1	3	52	12.42
Total	1	432	396	121	14	8	972	

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 : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 1- 1 00:00 to 0- 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	0	17	5	2	0	0	24	7.20
NNE	0	18	6	2	1	0	27	7.81
NE	0	17	5	1	0	0	23	7.36
ENE	0	10	5	0	0	0	15	7.44
E	0	22	10	0	0	0	32	7.30
ESE	0	10	0	0	0	0	10	5.97
SE	0	13	3	0	0	0	16	6.90
SSE	0	26	7	0	0	0	33	6.93
S	0	25	11	0	0	0	36	7.38
SSW	0	38	18	2	0	0	58	7.67
SW	0	74	19	0	0	0	93	6.84
WSW	0	63	19	0	0	0	82	6.77
W	0	53	7	1	0	0	61	6.46
WNW	0	42	2	0	0	0	44	6.09
NW	0	28	4	1	0	0	33	6.60
NNW	0	9	4	1	0	0	14	7.95
Total	0	465	125	10	1	0	601	

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 : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 1- 1 00:00 to 0- 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	0	4	0	0	0	0	4	5.62
NNE	0	5	0	0	0	0	5	6.18
NE	0	4	2	0	0	0	6	6.47
ENE	0	4	0	0	0	0	4	6.49
E	0	7	0	0	0	0	7	6.05
ESE	0	4	0	0	0	0	4	7.47
SE	0	5	0	0	0	0	5	6.35
SSE	0	25	2	0	0	0	27	6.06
S	0	38	5	0	0	0	43	6.18
SSW	0	28	3	0	0	0	31	6.06
SW	0	26	1	0	0	0	27	5.65
WSW	0	23	1	0	0	0	24	5.76
W	0	17	2	0	0	0	19	5.64
WNW	0	17	0	0	0	0	17	5.53
NW	0	12	0	0	0	0	12	6.12
NNW	0	6	0	0	0	0	6	6.58
Total	0	225	16	0	0	0	241	

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 : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 1- 1 00:00 to 0- 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	0	4	0	0	0	0	4	5.92
NNE	0	2	1	0	0	0	3	7.59
NE	0	0	0	0	0	0	0	0.00
ENE	0	1	1	0	0	0	2	7.60
E	0	0	0	0	0	0	0	0.00
ESE	0	1	1	0	0	0	2	7.92
SE	0	4	0	0	0	0	4	6.81
SSE	0	18	3	0	0	0	21	6.74
S	0	21	0	0	0	0	21	5.65
SSW	0	18	1	0	0	0	19	5.71
SW	0	23	0	0	0	0	23	5.39
WSW	0	28	3	0	0	0	31	6.10
W	0	22	2	0	0	0	24	5.92
WNW	0	19	2	0	0	0	21	6.64
NW	0	7	3	0	0	0	10	6.83
NNW	0	4	0	0	0	0	4	6.62
Total	0	172	17	0	0	0	189	

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 : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 1- 1 00:00 to 0- 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	0	56	25	10	2	0	93	8.41
NNE	0	66	42	20	7	5	140	10.15
NE	0	72	76	26	3	4	181	9.74
ENE	0	58	101	29	2	0	190	10.07
E	0	51	43	2	0	0	96	8.12
ESE	0	49	15	7	0	0	71	7.93
SE	0	37	6	3	1	0	47	7.64
SSE	0	89	16	0	0	0	105	6.65
S	0	101	36	0	0	0	137	6.93
SSW	0	105	46	9	0	0	160	7.78
SW	0	159	64	3	0	0	226	7.17
WSW	0	149	63	9	0	0	221	7.42
W	0	140	40	4	0	0	184	6.97
WNW	0	117	10	0	0	0	127	6.36
NW	1	91	26	4	0	0	122	7.11
NNW	0	33	24	23	1	3	84	11.01
Total	1	1373	633	149	16	12	2184	

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 : 2184

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0-10- 1 00:00 to 0-12-31 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	5	1	0	0	0	0	6	3.87
NNE	5	3	0	0	0	0	8	3.78
NE	4	0	0	0	0	0	4	2.41
ENE	1	1	0	0	0	0	2	4.90
E	2	1	0	0	0	0	3	3.93
ESE	4	1	0	0	0	0	5	3.28
SE	13	12	0	0	0	0	25	4.37
SSE	4	5	0	0	0	0	9	4.30
S	14	11	1	0	0	0	26	4.29
SSW	11	14	0	0	0	0	25	4.18
SW	21	14	0	0	0	0	35	3.66
WSW	23	6	0	0	0	0	29	3.33
W	10	3	0	0	0	0	13	3.46
WNW	9	0	0	0	0	0	9	2.99
NW	6	2	0	0	0	0	8	3.25
NNW	3	1	0	0	0	0	4	3.20
Total	135	75	1	0	0	0	211	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	9
Hours of Missing Data for All	:	162
Hours of No Stability Class	:	110
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0-10- 1 00:00 to 0-12-31 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	0	0	0	0	0	0	0.00
NE	1	0	0	0	0	0	1	3.04
ENE	3	0	0	0	0	0	3	2.67
E	0	0	0	0	0	0	0	0.00
ESE	3	0	0	0	0	0	3	3.35
SE	3	0	0	0	0	0	3	2.81
SSE	7	3	0	0	0	0	10	4.04
S	17	3	0	0	0	0	20	3.26
SSW	10	7	0	0	0	0	17	3.65
SW	36	10	0	0	0	0	46	3.19
WSW	63	15	0	0	0	0	78	3.47
W	54	23	0	0	0	0	77	3.47
WNW	26	0	0	0	0	0	26	3.20
NW	10	2	0	0	0	0	12	3.37
NNW	1	0	0	0	0	0	1	2.69
Total	234	63	0	0	0	0	297	

Hours of Calm	:	0
Hours of Varying Wind Direction	:	0
Hours of Missing Data	:	17
Hours of Missing Data for All	:	162
Hours of No Stability Class	:	110
Total hours of observation	:	2208

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0-10- 1 00:00 to 0-12-31 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	33	22	15	15	1	0	86	7.38
NNE	28	33	41	40	3	0	145	9.51
NE	32	50	108	64	4	0	258	10.06
ENE	15	47	93	24	0	0	179	9.18
E	17	35	16	2	0	0	70	6.23
ESE	18	18	3	0	0	0	39	4.59
SE	24	27	3	0	0	0	54	4.72
SSE	24	23	0	0	0	0	47	4.32
S	46	43	5	1	0	0	95	4.70
SSW	43	44	3	9	1	0	100	5.55
SW	93	65	7	0	0	0	165	4.03
WSW	150	107	31	2	0	0	290	4.85
W	103	125	16	5	0	0	249	4.81
WNW	80	28	8	0	0	0	116	3.88
NW	31	43	3	0	0	0	77	4.73
NNW	38	25	7	5	1	0	76	5.39
Total	775	735	359	167	10	0	2046	

Hours of Calm : 0
Hours of Varying Wind Direction : 0
Hours of Missing Data for All : 162
Hours of No Stability Class : 110
Total hours of observation : 2208

TABLE 8

JOINT FREQUENCY DISTRIBUTION

BY QUARTER FOR 2000

(BATCH RELEASES)

TABLE 8

JOINT FREQUENCY DISTRIBUTION

FIRST QUARTER 2000

NO BATCH RELEASES

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 6-29 15:00 to 0- 6-29 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 : 9

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 6-29 15:00 to 0- 6-29 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 : 9

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 6-29 15:00 to 0- 6-29 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 : 9

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 6-29 15:00 to 0- 6-29 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	1	1	0	0	0	2	8.29
ENE	0	1	2	0	0	0	3	8.74
E	0	1	0	0	0	0	1	6.55
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	3	3	0	0	0	6	

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 : 9

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 6-29 15:00 to 0- 6-29 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	1	0	0	0	0	1	4.91
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	1	0	0	0	0	1	4.07
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	6.13
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	3	0	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 : 9

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 6-29 15:00 to 0- 6-29 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 : 9

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 6-29 15:00 to 0- 6-29 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 : 9

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS

SITE: V. C. SUMMER Nuclear Station UNIT 1

Report Date : 01-03-29
Data Period : 0- 6-29 15:00 to 0- 6-29 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	1	0	0	0	0	1	4.91
NNE	0	0	0	0	0	0	0	0.00
NE	0	1	1	0	0	0	2	8.29
ENE	0	1	2	0	0	0	3	8.74
E	0	1	0	0	0	0	1	6.55
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	4.07
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	6.13
NW	0	0	0	0	0	0	0	0.00
NNW	0	0	0	0	0	0	0	0.00
Total	0	6	3	0	0	0	9	

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 : 9

TABLE 8

JOINT FREQUENCY DISTRIBUTION

THIRD QUARTER 2000

NO BATCH RELEASES

TABLE 8

JOINT FREQUENCY DISTRIBUTION

FOURTH QUARTER 2000

NO BATCH RELEASES