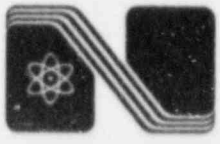
Nebraska Public Power District

Cooper Nuclear Station

DEMONSTRATION OF COMPLIANCE WITH 10 CFR 50, APPENDIX I SUPPLEMENT

June 27, 1977



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Nebraska Public Power District

Cooper Nuclear Station

Demonstration of Compliance with 10CFR50, Appendix I Supplement

June 27, 1977

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INTRODUCTION

This Supplement to the report "Demonstration of Compliance with 10CFR50, Appendix I, January 12, 1977" has been prepared to respond to the Nuclear Regulatory Commission (NRC) Request for Additional Information Appendix I, Cooper Nuclear Station Docket No. 50-298 Meteorology, dated March 24, 1977. There were nine items for which information was requested. The responses for each of the nine items contained in this document are intended to be fully responsive to the NRC's request. Each question is included from the March 24, 1977 letters, followed by the appropriate response.

QUESTION 1

Equation 10 on page 1-12 appears to overestimate D/Q values by a factor of 2 because of a miscalculation of arc length. The denominator of Equation 10 should be expressed as $0.3927\ x\ (= \frac{2\pi x}{16})$ rather than $0.19635\ x\ (= \frac{\pi x}{16})$. The D/Q values presented in Tables 3.15 - 3.18 would then be reduced by a factor of 2. Provide corrected Tables 3.15 -3.18.

RESPONSE 1

Equation 10 on Page 1-12 is in error, but Tables 3.15 - 3.18 are correct. The factor 2 was inadvertently dropped from the expression $\frac{2\pi x}{16}$ when the constant in the denominator of Equation 10 was derived for the text. Equation 10 should read:

$$Dep/Q = RDep \left(\frac{RCF}{0.3927x}\right) \quad (10)$$

The computer algorithm used to derive the tables is correct and thus Tables 3.15 to 3.18 are correct.

QUESTION 2

Section 3.4 indicates that prior to March 1, 1974, wind speeds from the 96.93m level were extrapolated by means of a power law to represent wind speeds at the 10.67m level, and wind direction measurements at the 96.93m level were assumed to represent wind directions at the 10.67m level. These substitutions would then allow the development of joint frequency distributions of wind speed and wind direction at the 10.67m level by atmospheric stability (defined by the vertical temperature gradient between 10.67m and 96.93m) for the period 3/1/70 - 12/31/75 as indicated in Table 3.4-1. However, Section 3.5 indicates that joint frequency tables were provided only using measurements from the 96.93m level (Tables 5.1 - 5.104). Tables 5.105 - 5.200 provide joint frequency distributions of wind speed and wind direction measured at the 10.67m level by atmospheric stability for the period 3/1/74 - 12/31/75. Provide joint frequency distributions for wind speed and wind direction at the 10.67m level by atmospheric stability for the period 3/1/70 - 12/31/75.

RESPONSE 2

Joint frequency distributions for wind speed and direction at the 10.67-meter-level by stability classes are given in Tables 2.1 through 2.104 for the period March 1970

through December 1975. The tables were derived by extrapolating the wind speeds from the 96.93-meter-level for the period from March 1970 to February 1974 by the following equation:

$$WS_{LL} = WS_{UL}\left(\frac{HT_{LL}}{HT_{UL}}\right)^{P(S)}$$

WS_{LL} = wind speed at lower level (10.67 meters)

WS_{UL} = wind speed at upper level (96.93 meters)

HT_{LL} = height of the lower wind sensors (10.67 meters)

HT_{UL} = height of the upper wind sensors (96.93 meters)

$P(S)$ = power factor based on stability class S

S = stability classes A-G as defined in RG 1.23

Missing wind speeds at either level during the period March 1974 through December 1975, if at least one level was available, were also extrapolated using the P(S)'s derived as explained in Response 3.

TABLE 2.1

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1, 1970 - DECEMBER 31, 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.21.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	21	111	212	144	47	3	538	4.46
	.25	1.31	2.51	1.71	.56	.04	6.37	
	.05	.24	.46	.31	.10	.01	1.18	
NE	28	77	76	28	3	0	212	3.26
	.33	.91	.90	.33	.04	0.00	2.51	
	.06	.17	.17	.06	.01	0.00	.46	
ENE	18	74	50	4	0	0	146	2.80
	.21	.88	.59	.05	0.00	0.00	1.73	
	.04	.16	.11	.01	0.00	0.00	.32	
E	12	63	38	12	8	0	133	3.34
	.14	.75	.45	.14	.09	0.00	1.58	
	.03	.14	.08	.03	.02	0.00	.29	
ESE	17	53	52	22	1	0	145	3.38
	.20	.63	.62	.26	.01	0.00	1.72	
	.04	.12	.11	.05	.00	0.00	.32	
SE	23	102	127	46	3	0	301	3.52
	.27	1.21	1.50	.54	.04	0.00	3.57	
	.05	.22	.28	.10	.01	0.00	.66	
SSE	14	113	287	165	30	0	609	4.37
	.17	1.34	3.40	1.95	.36	0.00	7.21	
	.03	.25	.63	.36	.07	0.00	1.33	
S	17	94	318	310	100	14	853	5.17
	.20	1.11	3.77	3.67	1.18	.17	10.10	
	.04	.21	.70	.68	.22	.03	1.86	
SSW	20	76	208	206	119	48	677	5.78
	.24	.90	2.46	2.44	1.41	.57	8.02	
	.04	.17	.45	.45	.26	.10	1.48	
SW	16	95	168	203	93	17	592	5.34
	.19	1.13	1.99	2.40	1.10	.20	7.01	
	.03	.21	.37	.44	.20	.04	1.29	
WSW	20	94	135	55	17	2	323	3.90
	.24	1.11	1.60	.65	.20	.02	3.83	
	.04	.21	.30	.12	.04	.00	.71	
W	18	121	117	52	14	2	324	3.76
	.21	1.43	1.39	.62	.17	.02	3.84	
	.04	.26	.26	.11	.03	.00	.71	
WNW	25	68	158	106	45	5	407	4.61
	.30	.81	1.87	1.26	.53	.06	4.82	
	.05	.15	.35	.23	.10	.01	.89	
NW	24	72	253	298	134	43	824	5.66
	.28	.85	3.00	3.53	1.59	.51	9.76	
	.05	.16	.55	.65	.29	.09	1.80	
NNW	31	115	273	399	228	32	1078	5.73
	.37	1.36	3.23	4.73	2.70	.38	12.77	
	.07	.25	.60	.87	.50	.07	2.36	
N	34	159	368	415	137	29	1142	5.17
	.40	1.88	4.36	4.92	1.62	.34	13.53	
	.07	.35	.80	.91	.30	.06	2.50	
CALM	138						138	CALM
	1.63						1.63	
	.30						.30	
TOTAL	476	1487	2840	2455	979	195	8442	4.83
	5.64	17.61	33.64	29.20	11.60	2.31	100.00	
	1.04	3.25	6.21	5.39	2.14	.43	18.45	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.2

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1, 1970 - DECEMBER 31, 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.21.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	7	22	46	49	20	0	144	4.89
	.37	1.15	2.41	2.57	1.05	0.00	7.54	
	.02	.05	.10	.11	.04	0.00	.31	
NE	3	16	14	4	2	0	39	3.41
	.16	.84	.73	.21	.10	0.00	2.04	
	.01	.03	.03	.01	.00	0.00	.09	
ENE	3	10	16	0	0	0	29	3.04
	.16	.52	.84	0.00	0.00	0.00	1.52	
	.01	.02	.03	0.00	0.00	0.00	.06	
E	3	9	14	2	1	0	29	3.48
	.16	.47	.73	.10	.05	0.00	1.52	
	.01	.02	.03	.00	.00	0.00	.06	
ESE	1	9	18	12	1	0	41	4.18
	.05	.47	.94	.63	.05	0.00	2.15	
	.00	.02	.04	.03	.00	0.00	.09	
SE	1	22	41	18	7	0	89	4.19
	.05	1.15	2.15	.94	.37	0.00	4.66	
	.00	.05	.09	.04	.02	0.00	.19	
SSE	4	22	60	38	4	0	128	4.40
	.21	1.15	3.14	1.99	.21	0.00	6.71	
	.01	.05	.13	.08	.01	0.00	.28	
S	5	26	68	81	24	5	209	5.30
	.26	1.36	3.56	4.24	1.26	.26	10.95	
	.01	.06	.15	.18	.05	.01	.46	
SSW	1	23	54	79	24	5	186	5.52
	.05	1.20	2.83	4.14	1.26	.26	9.74	
	.00	.05	.12	.17	.05	.01	.41	
SW	2	14	41	36	23	3	121	5.45
	.10	.73	2.15	1.89	1.20	.16	6.34	
	.00	.03	.09	.08	.05	.01	.26	
WSW	4	16	20	14	3	0	57	4.14
	.21	.84	1.05	.73	.16	0.00	2.99	
	.01	.03	.04	.03	.01	0.00	.12	
W	5	14	22	7	3	0	51	3.82
	.26	.73	1.15	.37	.16	0.00	2.67	
	.01	.03	.05	.02	.01	0.00	.11	
WNW	3	15	21	33	5	4	81	5.12
	.16	.79	1.10	1.73	.26	.21	4.24	
	.01	.03	.05	.07	.01	.01	.18	
NW	3	17	40	36	17	10	123	5.64
	.16	.89	2.10	1.89	.89	.52	6.44	
	.01	.04	.09	.08	.04	.02	.27	
NNW	14	46	80	93	27	4	264	4.89
	.73	2.41	4.19	4.87	1.41	.21	13.83	
	.03	.10	.17	.20	.06	.01	.58	
N	5	42	130	99	29	2	307	4.88
	.26	2.20	6.81	5.19	1.52	.10	16.08	
	.01	.09	.28	.22	.06	.00	.67	
CALM	11						11	CALM
	.58						.58	
	.02						.02	
TOTAL	75	323	685	603	190	33	1909	4.45
	3.93	16.92	35.88	31.59	9.95	1.73	100.00	
	.16	.71	1.50	1.32	.42	.07	4.17	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.3

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1, 1970 - DECEMBER 31, 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.21.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1	47	110	56	21	4	239	4.63
	.04	1.82	4.26	2.17	.81	.15	9.26	
	.00	.10	.24	.12	.05	.01	.52	
NE	10	17	36	14	0	0	77	3.56
	.39	.66	1.39	.54	0.00	0.00	2.98	
	.02	.04	.08	.03	0.00	0.00	.17	
ENE	2	23	22	2	0	0	49	3.10
	.08	.89	.85	.08	0.00	0.00	1.90	
	.00	.05	.05	.00	0.00	0.00	.11	
E	2	30	20	7	1	0	60	3.30
	.08	1.16	.77	.27	.04	0.00	2.32	
	.00	.07	.04	.02	.00	0.00	.13	
ESE	4	15	21	9	1	0	50	3.80
	.15	.58	.81	.35	.04	0.00	1.94	
	.01	.03	.05	.02	.00	0.00	.11	
SE	4	26	61	33	20	1	145	4.66
	.15	1.01	2.36	1.28	.77	.04	5.62	
	.01	.06	.13	.07	.04	.00	.32	
SSE	4	30	66	48	5	0	153	4.31
	.15	1.16	2.56	1.86	.19	0.00	5.93	
	.01	.07	.14	.10	.01	0.00	.33	
S	5	34	105	98	23	3	268	4.94
	.19	1.32	4.07	3.80	.89	.12	10.38	
	.01	.07	.23	.21	.05	.01	.59	
SSW	4	28	58	70	25	9	204	5.34
	.15	1.08	2.63	2.71	.97	.35	7.90	
	.01	.06	.15	.15	.05	.02	.45	
SW	2	20	53	43	24	3	145	5.24
	.08	.77	2.05	1.67	.93	.12	5.62	
	.00	.04	.12	.09	.05	.01	.32	
WSW	4	15	22	15	2	0	58	4.01
	.15	.58	.85	.58	.08	0.00	2.25	
	.01	.03	.05	.03	.00	0.00	.13	
W	6	20	22	16	2	0	66	3.83
	.23	.77	.85	.62	.08	0.00	2.56	
	.01	.04	.05	.03	.00	0.00	.14	
WNW	9	26	27	15	8	2	87	4.23
	.35	1.01	1.05	.58	.31	.08	3.37	
	.02	.06	.06	.03	.02	.00	.19	
NW	7	18	36	44	29	7	141	5.56
	.27	.70	1.39	1.70	1.12	.27	5.46	
	.02	.04	.08	.10	.06	.02	.31	
NNW	5	50	124	133	48	5	365	5.18
	.19	1.94	4.80	5.15	1.88	.19	14.14	
	.01	.11	.27	.29	.10	.01	.80	
N	8	63	184	143	46	7	451	4.90
	.31	2.44	7.13	5.54	1.78	.27	17.47	
	.02	.14	.40	.31	.10	.02	.99	
CALM	23						23	CALM
	.89						.89	
	.05						.05	
TOTAL	100	462	977	746	255	41	2581	4.71
	3.87	17.90	37.85	28.90	9.88	1.59	100.00	
	.22	1.01	2.14	1.63	.56	.09	5.64	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.4

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1, 1970 - DECEMBER 31, 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.21.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	77	381	552	260	28	10	1308	3.84
	.50	2.49	3.61	1.70	.18	.07	8.55	
	.17	.83	1.21	.57	.06	.02	2.86	
NE	61	296	337	58	6	0	758	3.22
	.40	1.93	2.20	.38	.04	0.00	4.95	
	.13	.65	.74	.13	.01	0.00	1.66	
ENE	66	268	184	34	2	0	548	2.87
	.39	1.75	1.20	.22	.01	0.00	3.58	
	.13	.59	.40	.07	.00	0.00	1.20	
E	63	266	239	30	1	1	600	2.97
	.41	1.74	1.56	.20	.01	.01	3.92	
	.14	.58	.52	.07	.00	.00	1.31	
ESE	64	286	285	115	11	1	762	3.45
	.42	1.87	1.86	.75	.07	.01	4.98	
	.14	.63	.62	.25	.02	.00	1.67	
SE	79	345	520	246	55	5	1290	4.05
	.52	2.25	3.40	1.87	.36	.03	8.43	
	.17	.75	1.14	.63	.12	.01	2.82	
SSE	67	326	528	272	41	6	1240	3.98
	.44	2.13	3.45	1.78	.27	.04	8.10	
	.15	.71	1.15	.59	.09	.01	2.71	
S	58	352	698	349	80	16	1553	4.26
	.38	2.30	4.56	2.28	.52	.10	10.15	
	.13	.77	1.53	.76	.17	.03	3.39	
SSW	41	223	379	363	77	8	1091	4.61
	.27	1.46	2.48	2.37	.50	.05	7.13	
	.09	.49	.83	.79	.17	.02	2.38	
SW	42	146	225	153	28	5	599	4.14
	.27	.95	1.47	1.00	.18	.03	3.91	
	.09	.32	.49	.33	.06	.01	1.31	
WSW	52	154	152	30	8	4	400	3.18
	.34	1.01	.99	.20	.05	.03	2.61	
	.11	.34	.33	.07	.02	.01	.87	
W	69	119	118	45	14	0	365	3.22
	.45	.78	.77	.29	.09	0.00	2.39	
	.15	.26	.26	.10	.03	0.00	.80	
WNW	40	116	137	111	16	5	425	4.02
	.26	.76	.90	.73	.10	.03	2.78	
	.09	.25	.30	.24	.03	.01	.93	
NW	74	197	357	278	67	1	974	4.33
	.48	1.29	2.33	1.82	.44	.01	6.37	
	.16	.43	.78	.61	.15	.00	2.13	
NNW	64	283	553	402	95	23	1420	4.53
	.42	1.85	3.61	2.63	.62	.15	9.28	
	.14	.62	1.21	.88	.21	.05	3.10	
N	84	433	799	392	73	25	1806	4.16
	.55	2.83	5.22	2.56	.48	.16	11.80	
	.18	.95	1.75	.86	.16	.05	3.95	
CALM	162						162	CALM
	1.06						1.06	
	.35						.35	
TOTAL	1157	4191	6063	3178	602	110	15301	3.93
	7.56	27.39	39.62	20.77	3.93	.72	100.00	
	2.53	9.16	13.25	6.95	1.32	.24	33.45	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.5

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1, 1970 - DECEMBER 31, 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.21.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	83	225	115	5	1	0	429	2.43
	.74	2.00	1.02	.04	.01	0.00	3.82	
	.18	.49	.25	.01	.00	0.00	.94	
NE	89	212	22	0	0	0	323	1.98
	.79	1.89	.20	0.00	0.00	0.00	2.88	
	.19	.46	.05	0.00	0.00	0.00	.71	
ENE	76	169	31	0	0	0	276	2.03
	.68	1.51	.28	0.00	0.00	0.00	2.46	
	.17	.37	.07	0.00	0.00	0.00	.60	
E	73	186	33	2	0	0	294	2.06
	.65	1.66	.29	.02	0.00	0.00	2.62	
	.16	.41	.07	.00	0.00	0.00	.64	
ESE	61	259	142	16	2	9	500	2.61
	.72	2.31	1.26	.14	.02	0.00	4.45	
	.18	.57	.31	.03	.00	0.00	1.09	
SE	88	415	348	55	7	0	913	2.99
	.78	3.70	3.10	.49	.06	0.00	8.13	
	.19	.91	.76	.12	.02	0.00	2.00	
SSE	116	552	543	76	11	0	1298	3.06
	1.03	4.92	4.84	.68	.10	0.00	11.56	
	.25	1.21	1.19	.17	.02	9.00	2.84	
S	145	760	757	93	24	2	1781	3.12
	1.29	6.77	6.74	.83	.21	.02	15.86	
	.32	1.66	1.65	.20	.05	.00	3.89	
SSW	104	511	675	97	5	0	1392	3.24
	.93	4.55	6.01	.86	.04	0.00	12.40	
	.23	1.12	1.48	.21	.01	0.00	3.04	
SW	67	298	410	46	2	1	824	3.21
	.60	2.65	3.65	.41	.02	.01	7.34	
	.15	.65	.90	.10	.00	.00	1.80	
WSW	80	190	120	10	1	0	401	2.57
	.71	1.69	1.07	.09	.01	0.00	3.57	
	.17	.42	.26	.02	.00	0.00	.88	
W	98	135	94	11	1	1	340	2.49
	.87	1.20	.84	.10	.01	.01	3.03	
	.21	.30	.21	.02	.00	.00	.74	
WNW	54	155	170	8	0	0	387	2.87
	.48	1.38	1.51	.07	0.00	0.00	3.45	
	.12	.34	.37	.02	0.00	0.00	.85	
NW	71	229	258	11	7	0	576	2.99
	.63	2.04	2.30	.10	.06	0.00	5.13	
	.16	.50	.56	.02	.02	0.00	1.26	
NNW	93	325	243	18	2	0	681	2.74
	.83	2.89	2.16	.16	.02	0.00	6.07	
	.20	.71	.53	.04	.00	0.00	1.49	
N	162	312	174	9	3	0	660	2.42
	1.44	2.78	1.55	.08	.03	0.00	5.88	
	.35	.68	.38	.02	.01	0.00	1.44	
CALM	152						152	CALM
	1.35						1.35	
	.33						.33	
TOTAL	1632	4933	4135	457	66	4	11227	2.83
	14.54	43.94	36.83	4.07	.59	.04	100.00	
	3.57	10.78	9.04	1.00	.14	.01	24.54	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.6

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1, 1970 - DECEMBER 31, 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.21.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	62	57	4	0	0	0	123	1.58
	1.40	1.29	.09	0.00	0.00	0.00	2.77	
	.14	.12	.01	0.00	0.00	0.00	.27	
NE	38	45	1	1	0	0	85	1.62
	.86	1.01	.02	.02	0.00	0.00	1.92	
	.08	.10	.00	.00	0.00	0.00	.19	
ENE	27	27	4	1	0	0	59	1.41
	.61	.61	.09	.02	0.00	0.00	1.33	
	.06	.06	.01	.00	0.00	0.00	.13	
E	40	33	4	0	0	0	77	1.52
	.90	.74	.09	0.00	0.00	0.00	1.74	
	.09	.07	.01	0.00	0.00	0.00	.17	
ESE	47	60	5	2	0	0	114	1.75
	1.06	1.35	.11	.05	0.00	0.00	2.57	
	.10	.13	.01	.00	0.00	0.00	.25	
SE	57	174	30	1	0	0	262	2.10
	1.29	3.92	.68	.02	0.00	0.00	5.91	
	.12	.38	.07	.00	0.00	0.00	.57	
SSE	74	314	57	2	3	0	450	2.20
	1.67	7.08	1.29	.05	.07	0.00	10.15	
	.16	.69	.12	.00	.01	0.00	.98	
S	133	459	71	3	1	0	677	2.11
	3.00	10.57	1.60	.07	.02	0.00	15.26	
	.29	1.03	.16	.01	.00	0.00	1.48	
SSW	89	425	74	1	0	0	589	2.17
	2.01	9.58	1.67	.02	0.00	0.00	13.28	
	.19	.93	.16	.00	0.00	0.00	1.29	
SW	80	325	96	0	1	0	502	2.31
	1.80	7.33	2.16	0.00	.02	0.00	11.32	
	.17	.71	.21	0.00	.00	0.00	1.10	
WSW	74	170	30	0	0	0	274	2.01
	1.67	3.83	.68	0.00	0.00	0.00	6.18	
	.16	.37	.07	0.00	0.00	0.00	.60	
W	77	114	22	1	0	0	214	1.86
	1.74	2.57	.50	.02	0.00	0.00	4.83	
	.17	.25	.05	.00	0.00	0.00	.47	
WNW	57	92	40	0	0	0	189	2.07
	1.29	2.07	.90	0.00	0.00	0.00	4.26	
	.12	.20	.09	0.00	0.00	0.00	.41	
NW	69	111	33	1	0	0	214	2.05
	1.56	2.50	.74	.02	0.00	0.00	4.83	
	.15	.24	.07	.00	0.00	0.00	.47	
NNW	93	131	22	0	0	0	246	1.84
	2.10	2.95	.50	0.00	0.00	0.00	5.55	
	.20	.29	.05	0.00	0.00	0.00	.54	
N	126	89	15	2	0	0	232	1.63
	2.84	2.01	.34	.05	0.00	0.00	5.23	
	.28	.19	.03	.00	0.00	0.00	.51	
CALM	128						128	CALM
	2.89						2.89	
	.28						.28	
TOTAL	1271	2836	508	15	5	0	4435	1.98
	28.66	59.44	11.45	.34	.11	0.00	100.00	
	2.78	5.76	1.11	.03	.01	0.00	9.69	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.7

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1, 1970 - DECEMBER 31, 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.21.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	47	13	1	0	0	0	61	1.36
	2.54	.70	.05	0.00	0.00	0.00	3.30	
	.10	.03	.00	0.00	0.00	0.00	.13	
NE	15	9	1	0	0	0	25	1.46
	.81	.49	.05	0.00	0.00	0.00	1.35	
	.03	.02	.00	0.00	0.00	0.00	.05	
ENE	16	14	0	0	0	0	30	1.45
	.86	.76	0.00	0.00	0.00	0.00	1.62	
	.03	.03	0.00	0.00	0.00	0.00	.07	
E	26	14	1	0	0	0	41	1.46
	1.40	.76	.05	0.00	0.00	0.00	2.22	
	.06	.03	.00	0.00	0.00	0.00	.09	
ESE	41	17	0	0	0	0	58	1.38
	2.22	.92	0.00	0.00	0.00	0.00	3.13	
	.09	.04	0.00	0.00	0.00	0.00	.13	
SE	43	46	1	0	0	0	90	1.58
	2.32	2.49	.05	0.00	0.00	0.00	4.86	
	.09	.10	.00	0.00	0.00	0.00	.20	
SSE	45	62	8	0	1	0	116	1.79
	2.43	3.35	.43	0.00	.05	0.00	6.27	
	.10	.14	.02	0.00	.00	0.00	.25	
S	63	104	2	0	1	0	170	1.77
	3.40	5.62	.11	0.00	.05	0.00	9.18	
	.14	.23	.00	0.00	.00	0.00	.37	
SSW	50	137	17	0	0	0	204	1.97
	2.70	7.40	.92	0.00	0.00	0.00	11.02	
	.11	.30	.04	0.00	0.00	0.00	.45	
SW	64	113	31	0	0	0	208	2.05
	3.46	6.10	1.67	0.00	0.00	0.00	11.24	
	.14	.25	.07	0.00	0.00	0.00	.45	
WSW	82	74	9	0	0	0	165	1.69
	4.43	4.00	.49	0.00	0.00	0.00	8.91	
	.18	.16	.02	0.00	0.00	0.00	.36	
W	66	67	1	0	0	0	134	1.59
	3.57	3.62	.05	0.00	0.00	0.00	7.24	
	.14	.15	.00	0.00	0.00	0.00	.29	
WNW	53	46	7	0	0	0	106	1.69
	2.86	2.49	.38	0.00	0.00	0.00	5.73	
	.12	.10	.02	0.00	0.00	0.00	.23	
NW	44	73	7	0	0	0	124	1.74
	2.38	3.94	.38	0.00	0.00	0.00	6.70	
	.10	.16	.02	0.00	0.00	0.00	.27	
NNW	45	41	4	0	0	0	90	1.64
	2.43	2.22	.22	0.00	0.00	0.00	4.86	
	.10	.09	.01	0.00	0.00	0.00	.20	
N	75	55	3	0	0	0	133	1.46
	4.05	2.97	.16	0.00	0.00	0.00	7.19	
	.16	.12	.01	0.00	0.00	0.00	.29	
CALM	96						96	CALM
	5.19						5.19	
	.21						.21	
TOTAL	871	885	93	0	2	0	1851	1.63
	47.06	47.81	5.02	0.00	.11	0.00	100.00	
	1.90	1.93	.20	0.00	.00	0.00	4.05	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.8

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1, 1970 - DECEMBER 31, 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.21.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	298 .65	856 1.87	1040 2.27	514 1.12	117 .26	17 .04	2842 6.21	3.72
NE	244 .53	672 1.47	487 1.06	105 .23	11 .02	0 0.00	1519 3.32	2.46
ENE	202 .44	585 1.28	307 .67	41 .09	2 .00	0 0.00	1137 2.49	2.58
E	219 .48	601 1.31	349 .76	53 .12	11 .02	1 .00	1234 2.70	2.68
ESE	255 .56	699 1.53	523 1.14	176 .38	16 .03	1 .00	1670 3.65	3.03
SE	295 .64	1130 2.47	1128 2.47	439 .96	92 .20	6 .01	3090 6.75	3.48
SSE	324 .71	1419 3.10	1549 3.39	601 1.31	95 .21	6 .01	3994 8.73	3.50
S	426 .93	1839 4.02	2019 4.41	934 2.04	253 .55	40 .09	5511 12.05	3.76
SSW	309 .68	1423 3.11	1475 3.22	816 1.78	250 .55	70 .15	4343 9.49	3.97
SW	273 .60	1011 2.21	1024 2.24	483 1.06	171 .37	29 .06	2991 6.54	3.77
WSW	316 .69	713 1.56	488 1.07	124 .27	31 .07	6 .01	1678 3.67	2.90
W	339 .74	590 1.29	396 .87	132 .29	34 .07	3 .01	1494 3.27	2.88
WNW	241 .53	518 1.13	560 1.22	273 .60	74 .16	16 .03	1682 3.66	3.59
NW	292 .64	717 1.57	984 2.15	668 1.46	254 .56	61 .13	2976 6.51	4.28
NNW	345 .75	991 2.17	1299 2.84	1045 2.28	400 .87	64 .14	4144 9.06	4.41
N	494 1.08	1153 2.52	1673 3.66	1060 2.32	288 .63	63 .14	4731 10.34	4.08
CALM	710 1.55						710 1.55	CALM
TOTAL	5582 12.20	14917 32.61	15301 33.45	7464 16.32	2099 4.59	383 .84	45746 100.00	3.62

NUMBER OF VALID OBSERVATIONS 45746 89.40 PCT.
NUMBER OF INVALID OBSERVATIONS 5422 10.60 PCT.
TOTAL NUMBER OF OBSERVATIONS 51168 100.00 PCT.

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES

TABLE 2.9

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JANUARY 1971 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.40.02.

COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	16	11	14	7	0	48	4.72
	0.00	3.23	2.22	2.82	1.41	0.00	9.68	
	0.00	.47	.32	.41	.21	0.00	1.41	
NE	1	8	7	0	0	0	16	2.89
	.20	1.61	1.41	0.00	0.00	0.00	3.23	
	.03	.23	.21	0.00	0.00	0.00	.47	
ENE	0	4	2	0	0	0	6	2.47
	0.00	.81	.40	0.00	0.00	0.00	1.21	
	0.00	.12	.06	0.00	0.00	0.00	.18	
E	1	3	2	0	0	0	6	2.69
	.20	.60	.40	0.00	0.00	0.00	1.21	
	.03	.09	.06	0.00	0.00	0.00	.18	
ESE	0	3	0	0	0	0	3	2.79
	0.00	.60	0.00	0.00	0.00	0.00	.60	
	0.00	.09	0.00	0.00	0.00	0.00	.09	
SE	0	1	2	0	0	0	3	2.91
	0.00	.20	.40	0.00	0.00	0.00	.60	
	0.00	.03	.06	0.00	0.00	0.00	.09	
SSE	2	6	3	0	0	0	11	2.47
	.40	1.21	.60	0.00	0.00	0.00	2.22	
	.06	.18	.09	0.00	0.00	0.00	.32	
S	1	4	9	7	0	0	21	4.27
	.20	.81	1.81	1.41	0.00	0.00	4.23	
	.03	.12	.26	.21	0.00	0.00	.62	
SSW	4	6	3	10	10	0	33	5.40
	.81	1.21	.60	2.02	2.02	0.00	6.65	
	.12	.18	.09	.29	.29	0.00	.97	
SW	2	5	19	5	4	1	36	4.63
	.40	1.01	3.83	1.01	.81	.20	7.26	
	.06	.15	.56	.15	.12	.03	1.05	
WSW	0	8	17	6	0	0	31	3.88
	0.00	1.61	3.43	1.21	0.00	0.00	6.25	
	0.00	.23	.50	.18	0.00	0.00	.91	
W	0	9	4	2	1	0	16	3.56
	0.00	1.81	.81	.40	.20	0.00	3.23	
	0.00	.26	.12	.06	.03	0.00	.47	
WNW	2	9	18	3	2	0	34	3.66
	.40	1.81	3.63	.60	.40	0.00	6.85	
	.06	.26	.53	.09	.06	0.00	1.00	
NW	0	5	24	18	6	5	58	5.51
	0.00	1.01	4.84	3.63	1.21	1.01	11.69	
	0.00	.15	.70	.53	.18	.15	1.70	
NNW	2	10	24	23	21	4	84	5.86
	.40	2.02	4.84	4.64	4.23	.81	16.94	
	.06	.29	.70	.67	.62	.12	2.46	
N	1	10	18	29	13	6	77	5.84
	.20	2.02	3.63	5.85	2.62	1.21	15.52	
	.03	.29	.53	.85	.38	.18	2.26	
CALM	13						13	CALM
	2.62						2.62	
	.38						.38	
TOTAL	29	107	163	117	64	16	496	4.73
	5.85	21.57	32.86	23.59	12.90	3.23	100.00	
	.85	3.13	4.77	3.43	1.87	.47	14.53	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.10

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JANUARY 1971 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.40.02.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-021-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	3	12	11	3	0	29	4.80
	0.00	2.14	8.57	7.86	2.14	0.00	20.71	
	0.00	.09	.35	.32	.09	0.00	.85	
NE	0	4	1	0	0	0	5	3.00
	0.00	2.86	.71	0.00	0.00	0.00	3.57	
	0.00	.12	.03	0.00	0.00	0.00	.15	
ENE	0	3	0	0	0	0	3	1.98
	0.00	2.14	0.00	0.00	0.00	0.00	2.14	
	0.00	.09	0.00	0.00	0.00	0.00	.09	
E	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ESE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SSE	0	1	1	0	0	0	2	3.89
	0.00	.71	.71	0.00	0.00	0.00	1.43	
	0.00	.03	.03	0.00	0.00	0.00	.06	
S	0	1	3	2	0	0	6	4.31
	0.00	.71	2.14	1.43	0.00	0.00	4.29	
	0.00	.03	.09	.06	0.00	0.00	.18	
SSW	0	0	4	9	4	0	17	6.26
	0.00	0.00	2.86	6.43	2.86	0.00	12.14	
	0.00	0.00	.12	.26	.12	0.00	.50	
SW	0	1	2	4	0	0	7	4.62
	0.00	.71	1.43	2.86	0.00	0.00	5.00	
	0.00	.03	.06	.12	0.00	0.00	.21	
WSW	0	1	2	1	0	0	4	4.33
	0.00	.71	1.43	.71	0.00	0.00	2.86	
	0.00	.03	.06	.03	0.00	0.00	.12	
W	0	1	1	0	0	0	2	3.64
	0.00	.71	.71	0.00	0.00	0.00	1.43	
	0.00	.03	.03	0.00	0.00	0.00	.06	
WNW	0	3	2	3	0	0	8	4.18
	0.00	2.14	1.43	2.14	0.00	0.00	5.71	
	0.00	.09	.06	.09	0.00	0.00	.23	
NW	1	2	3	3	3	0	12	5.47
	.71	1.43	2.14	2.14	2.14	0.00	8.57	
	.03	.06	.09	.09	.09	0.00	.35	
NNW	0	0	6	5	1	0	12	5.40
	0.00	0.00	4.29	3.57	.71	0.00	8.57	
	0.00	0.00	.18	.15	.03	0.00	.35	
N	0	2	14	15	1	0	32	5.11
	0.00	1.43	10.00	10.71	.71	0.00	22.86	
	0.00	.06	.41	.44	.03	0.00	.94	
CALM	1						1	CALM
	.71						.71	
	.03						.03	
TOTAL	2	22	51	53	12	0	140	4.89
	1.43	15.71	36.43	37.86	8.57	0.00	100.00	
	.06	.64	1.49	1.55	.35	0.00	4.10	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2:11

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JANUARY 1971 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.40.02.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	10	19	3	0	0	32	3.65
	0.00	5.71	10.86	1.71	0.00	0.00	18.29	
	0.00	.29	.56	.09	0.00	0.00	.94	
NE	0	5	9	0	0	0	14	3.46
	0.00	2.86	5.14	0.00	0.00	0.00	8.00	
	0.00	.15	.26	0.00	0.00	0.00	.41	
ENE	0	2	0	0	0	0	2	2.14
	0.00	1.14	0.00	0.00	0.00	0.00	1.14	
	0.00	.06	0.00	0.00	0.00	0.00	.06	
E	0	2	2	0	0	0	4	2.74
	0.00	1.14	1.14	0.00	0.00	0.00	2.29	
	0.00	.06	.06	0.00	0.00	0.00	.12	
ESE	0	3	2	0	0	0	5	2.87
	0.00	1.71	1.14	0.00	0.00	0.00	2.86	
	0.00	.09	.06	0.00	0.00	0.00	.15	
SE	0	3	3	0	0	0	6	2.86
	0.00	1.71	1.71	0.00	0.00	0.00	3.43	
	0.00	.09	.09	0.00	0.00	0.00	.18	
SSE	0	0	1	0	0	0	1	3.99
	0.00	0.00	.57	0.00	0.00	0.00	.57	
	0.00	0.00	.03	0.00	0.00	0.00	.03	
S	1	4	4	3	0	0	12	3.59
	.57	2.29	2.29	1.71	0.00	0.00	6.86	
	.03	.12	.12	.09	0.00	0.00	.35	
SSW	1	2	0	3	0	0	6	4.59
	.57	1.14	0.00	1.71	0.00	0.00	3.43	
	.03	.06	0.00	.09	0.00	0.00	.18	
SW	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WSW	0	1	0	1	0	0	2	4.28
	0.00	.57	0.00	.57	0.00	0.00	1.14	
	0.00	.03	0.00	.03	0.00	0.00	.06	
W	0	2	0	0	0	0	2	2.38
	0.00	1.14	0.00	0.00	0.00	0.00	1.14	
	0.00	.06	0.00	0.00	0.00	0.00	.06	
WNW	0	3	1	0	3	0	7	5.16
	0.00	1.71	.57	0.00	1.71	0.00	4.00	
	0.00	.09	.03	0.00	.09	0.00	.21	
NW	1	3	4	2	7	0	17	5.66
	.57	1.71	2.29	1.14	4.00	0.00	9.71	
	.03	.09	.12	.06	.21	0.00	.50	
NNW	0	1	14	10	2	0	27	5.12
	0.00	.57	8.00	5.71	1.14	0.00	15.43	
	0.00	.03	.41	.29	.06	0.00	.79	
N	0	5	12	15	5	1	38	5.30
	0.00	2.86	6.86	8.57	2.86	.57	21.71	
	0.00	.15	.35	.44	.15	.03	1.11	
CALM	0						0	CALM
	0.00						0.00	
	0.00						0.00	
TOTAL	3	46	71	37	17	1	175	4.41
	1.71	26.29	40.57	21.14	9.71	.57	100.00	
	.09	1.35	2.08	1.08	.50	.03	5.13	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.12

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JANUARY 1971 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.40.02.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	6	38	65	16	2	0	127	3.59
	.50	3.15	5.39	1.33	.17	0.00	10.52	
	.18	1.11	1.90	.47	.06	0.00	3.72	
NE	13	28	27	4	1	0	70	2.96
	.83	2.32	2.24	.33	.08	0.00	5.80	
	.29	.82	.79	.12	.03	0.00	2.05	
ENE	6	20	5	2	0	0	33	2.48
	.50	1.66	.41	.17	0.00	0.00	2.73	
	.18	.59	.15	.06	0.00	0.00	.97	
E	8	10	10	2	0	0	30	2.86
	.66	.83	.83	.17	0.00	0.00	2.49	
	.23	.29	.29	.06	0.00	0.00	.88	
ESE	9	25	12	20	0	0	66	3.54
	.75	2.07	.99	1.66	0.00	0.00	5.47	
	.26	.73	.35	.59	0.00	0.00	1.93	
SE	7	19	9	10	1	0	46	3.28
	.58	1.57	.75	.83	.08	0.00	3.81	
	.21	.55	.26	.29	.03	0.00	1.35	
SSE	5	19	18	7	0	0	49	3.21
	.41	1.57	1.49	.58	0.00	0.00	4.06	
	.15	.56	.53	.21	0.00	0.00	1.44	
S	5	23	35	27	0	0	90	3.88
	.41	1.91	2.90	2.24	0.00	0.00	7.46	
	.15	.67	1.03	.79	0.00	0.00	2.64	
SSW	2	11	22	25	1	0	61	4.39
	.17	.91	1.82	2.07	.08	0.00	5.05	
	.06	.32	.64	.73	.03	0.00	1.79	
SW	3	13	22	8	1	0	47	3.76
	.25	1.08	1.82	.66	.08	0.00	3.89	
	.09	.38	.64	.23	.03	0.00	1.38	
WSW	4	14	17	0	0	0	35	2.85
	.33	1.16	1.41	0.00	0.00	0.00	2.90	
	.12	.41	.50	0.00	0.00	0.00	1.03	
W	5	12	13	0	0	0	30	2.87
	.41	.99	1.08	0.00	0.00	0.00	2.49	
	.15	.35	.38	0.00	0.00	0.00	.88	
WNW	6	8	13	15	4	0	46	4.43
	.50	.66	1.08	1.24	.33	0.00	3.81	
	.18	.23	.38	.44	.12	0.00	1.35	
NW	10	32	35	26	8	0	111	4.07
	.83	2.65	2.90	2.15	.66	0.00	9.20	
	.29	.94	1.03	.76	.23	0.00	3.25	
NNW	5	42	69	33	17	1	167	4.45
	.41	3.48	5.72	2.73	1.41	.08	13.84	
	.15	1.23	2.02	.97	.50	.03	4.89	
N	9	48	75	32	12	12	188	4.58
	.75	3.98	6.21	2.65	.99	.99	15.58	
	.26	1.41	2.20	.94	.35	.35	5.51	
CALM	11						11	CALM
	.91						.91	
	.32						.32	
TOTAL	111	362	447	227	47	13	1207	3.82
	9.20	29.99	37.03	18.81	3.89	1.08	100.00	
	3.25	10.60	13.09	6.65	1.38	.38	35.35	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.13

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JANUARY 1971 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.40.02.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
SARGENT AND LUNDY JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	5	8	4	0	0	0	18	2.14
	.57	.90	.45	0.00	0.00	0.00	2.02	
	.18	.23	.12	0.00	0.00	0.00	.53	
NE	9	9	0	0	0	0	18	1.51
	1.01	1.01	0.00	0.00	0.00	0.00	2.02	
	.26	.26	0.00	0.00	0.00	0.00	.53	
ENE	3	3	0	0	0	0	6	1.60
	.34	.34	0.00	0.00	0.00	0.00	.67	
	.09	.09	0.00	0.00	0.00	0.00	.18	
E	1	4	2	0	0	0	7	2.29
	.11	.45	.22	0.00	0.00	0.00	.79	
	.03	.12	.06	0.00	0.00	0.00	.21	
ESE	5	6	14	0	0	0	25	2.79
	.56	.67	1.57	0.00	0.00	0.00	2.81	
	.15	.18	.41	0.00	0.00	0.00	.73	
SE	2	17	3	0	0	0	22	2.19
	.22	1.91	.34	0.00	0.00	0.00	2.47	
	.06	.50	.09	0.00	0.00	0.00	.64	
SSE	10	28	8	0	0	0	46	2.28
	1.12	3.15	.90	0.00	0.00	0.00	5.17	
	.29	.82	.23	0.00	0.00	0.00	1.35	
S	8	41	56	0	0	0	105	3.03
	.90	4.61	6.30	0.00	0.00	0.00	11.81	
	.23	1.20	1.64	0.00	0.00	0.00	3.08	
SSW	12	35	85	5	0	0	137	3.31
	1.35	3.94	9.56	.56	0.00	0.00	15.41	
	.35	1.03	2.49	.15	0.00	0.00	4.01	
SW	11	33	83	4	0	0	131	3.31
	1.24	3.71	9.34	.45	0.00	0.00	14.74	
	.32	.97	2.43	.12	0.00	0.00	3.84	
WSW	19	35	25	0	0	0	79	2.50
	2.14	3.94	2.81	0.00	0.00	0.00	8.89	
	.56	1.03	.73	0.00	0.00	0.00	2.32	
W	15	26	16	0	0	0	58	2.33
	1.69	2.92	1.80	0.00	0.00	0.00	6.52	
	.47	.76	.47	0.00	0.00	0.00	1.70	
WNW	5	23	30	0	0	0	58	3.07
	.56	2.59	3.37	0.00	0.00	0.00	6.52	
	.15	.67	.88	0.00	0.00	0.00	1.70	
NW	2	35	35	0	0	0	72	3.04
	.22	3.94	3.94	0.00	0.00	0.00	8.10	
	.06	1.03	1.03	0.00	0.00	0.00	2.11	
NNW	9	30	23	0	0	0	62	2.46
	1.01	3.37	2.59	0.00	0.00	0.00	6.97	
	.26	.88	.67	0.00	0.00	0.00	1.82	
N	15	14	7	0	6	0	36	2.11
	1.69	1.57	.79	0.00	0.00	0.00	4.05	
	.44	.41	.21	0.00	0.00	0.00	1.05	
CALM	9						9	CALM
	1.01						1.01	
	.26						.26	
TOTAL	142	347	391	9	6	0	889	2.79
	15.97	39.03	43.98	1.01	0.06	0.00	100.00	
	4.16	10.16	11.45	.26	0.00	0.00	26.04	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.14

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JANUARY 1971 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.40.02.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	1	0	0	0	0	4	.95
	.73	.24	0.00	0.00	0.00	0.00	.98	
	.09	.03	0.00	0.00	0.00	0.00	.12	
NE	2	1	0	0	0	0	3	1.33
	.49	.24	0.00	0.00	0.00	0.00	.73	
	.06	.03	0.00	0.00	0.00	0.00	.09	
ENE	1	0	0	0	0	0	1	1.44
	.24	0.00	0.00	0.00	0.00	0.00	.24	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
E	1	0	0	0	0	0	1	.91
	.25	0.00	0.00	0.00	0.00	0.00	.24	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
ESE	2	0	0	0	0	0	2	1.17
	.49	0.00	0.00	0.00	0.00	0.00	.49	
	.06	0.00	0.00	0.00	0.00	0.00	.06	
SE	1	7	4	0	0	0	12	2.62
	.24	1.71	.98	0.00	0.00	0.00	2.93	
	.03	.21	.12	0.00	0.00	0.00	.35	
SSE	3	13	0	0	0	0	16	1.79
	.73	3.18	0.00	0.00	0.00	0.00	3.91	
	.09	.38	0.00	0.00	0.00	0.00	.47	
S	8	25	4	0	0	0	37	1.98
	1.96	6.11	.98	0.00	0.00	0.00	9.05	
	.23	.73	.12	0.00	0.00	0.00	1.08	
SSW	8	49	11	0	0	0	68	2.26
	1.96	11.98	2.69	0.00	0.00	0.00	16.63	
	.23	1.44	.32	0.00	0.00	0.00	1.99	
SW	10	66	12	0	0	0	88	2.29
	2.44	16.14	2.93	0.00	0.00	0.00	21.52	
	.29	1.93	.35	0.00	0.00	0.00	2.58	
WSW	13	36	0	0	0	0	49	1.88
	3.18	8.80	0.00	0.00	0.00	0.00	11.98	
	.38	1.05	0.00	0.00	0.00	0.00	1.44	
W	15	25	4	0	0	0	44	1.86
	3.67	6.11	.98	0.00	0.00	0.00	10.76	
	.44	.73	.12	0.00	0.00	0.00	1.29	
WNW	5	19	7	0	0	0	31	2.24
	1.22	4.65	1.71	0.00	0.00	0.00	7.58	
	.15	.56	.21	0.00	0.00	0.00	.91	
NW	9	11	0	0	0	0	21	2.43
	.98	2.69	1.47	0.00	0.00	0.00	5.13	
	.12	.32	.18	0.00	0.00	0.00	.62	
NNW	7	8	1	0	0	0	16	1.86
	1.71	1.96	.24	0.00	0.00	0.00	3.91	
	.21	.23	.03	0.00	0.00	0.00	.47	
N	4	2	0	0	0	0	6	1.57
	.98	.49	0.00	0.00	0.00	0.00	1.47	
	.12	.06	0.00	0.00	0.00	0.00	.18	
CALM	10						10	CALM
	2.44						2.44	
	.29						.29	
TOTAL	97	263	49	0	0	0	409	2.04
	23.72	64.30	11.98	0.00	0.00	0.00	100.00	
	2.84	7.70	1.44	0.00	0.00	0.00	11.98	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.15

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JANUARY 1971 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.46.02.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	2	0	0	0	0	0	2	1.10
	2.04	0.00	0.00	0.00	0.00	0.00	2.04	
	.06	0.00	0.00	0.00	0.00	0.00	.06	
NE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ENE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
E	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ESE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SSE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
S	2	3	0	0	0	0	5	1.47
	2.04	3.06	0.00	0.00	0.00	0.00	5.10	
	.06	.09	0.00	0.00	0.00	0.00	.15	
SSW	6	4	0	0	0	0	10	1.58
	6.12	4.08	0.00	0.00	0.00	0.00	10.20	
	.18	.12	0.00	0.00	0.00	0.00	.29	
SW	3	11	2	0	0	0	16	2.13
	3.06	11.22	2.04	0.00	0.00	0.00	16.33	
	.09	.32	.06	0.00	0.00	0.00	.47	
WSW	8	11	1	0	0	0	20	1.97
	8.16	11.22	1.02	0.00	0.00	0.00	20.41	
	.23	.32	.03	0.00	0.00	0.00	.59	
W	8	8	0	0	0	0	16	1.69
	8.16	8.16	0.00	0.00	0.00	0.00	16.33	
	.23	.23	0.00	0.00	0.00	0.00	.47	
WNW	6	11	0	0	0	0	17	1.63
	6.12	11.22	0.00	0.00	0.00	0.00	17.35	
	.18	.32	0.00	0.00	0.00	0.00	.50	
NW	0	3	0	0	0	0	3	1.78
	0.00	3.06	0.00	0.00	0.00	0.00	3.06	
	0.00	.09	0.00	0.00	0.00	0.00	.09	
NNW	3	1	0	0	0	0	4	1.28
	3.06	1.02	0.00	0.00	0.00	0.00	4.08	
	.09	.03	0.00	0.00	0.00	0.00	.12	
N	0	3	0	0	0	0	3	1.68
	0.00	3.06	0.00	0.00	0.00	0.00	3.06	
	0.00	.09	0.00	0.00	0.00	0.00	.09	
CALM	2						2	CALM
	2.04						2.04	
	.06						.06	
TOTAL	40	55	3	0	0	0	98	1.73
	40.82	56.12	3.06	0.00	0.00	0.00	100.00	
	1.17	1.61	.09	0.00	0.00	0.00	2.87	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.16

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JANUARY 1971 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.40.02.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	17 .50	76 2.23	111 3.25	44 1.29	12 .35	0 0.00	260 7.62	3.78
NE	22 .64	55 1.61	44 1.29	4 .12	1 .03	0 0.00	126 3.69	2.76
ENE	10 .29	32 .94	7 .21	2 .06	0 0.00	0 0.00	51 1.49	2.31
E	11 .32	19 .56	16 .47	2 .06	0 0.00	0 0.00	48 1.41	2.70
ESE	16 .47	37 1.08	28 .82	20 .59	0 0.00	0 0.00	101 2.96	3.25
SE	10 .29	47 1.38	21 .62	10 .29	1 .03	0 0.00	89 2.61	2.88
SSE	20 .59	67 1.96	31 .91	7 .21	0 0.00	0 0.00	125 3.66	2.64
S	25 .73	101 2.96	111 3.25	39 1.14	0 0.00	0 0.00	276 8.08	3.28
SSW	33 .97	107 3.13	125 3.66	52 1.52	15 .44	0 0.00	332 9.72	3.62
SW	29 .85	129 3.78	140 4.10	21 .62	5 .15	1 .03	325 9.52	3.22
WSW	44 1.29	106 3.10	62 1.82	8 .23	0 0.00	0 0.00	220 6.44	2.61
W	44 1.29	83 2.43	38 1.11	2 .06	1 .03	0 0.00	168 4.92	2.37
WNW	24 .70	76 2.23	71 2.08	21 .62	7 .20	0 0.00	201 5.89	3.35
NW	18 .53	91 2.67	107 3.13	49 1.44	24 .70	5 .15	294 8.61	4.11
NNW	26 .76	92 2.69	137 4.01	71 2.08	41 1.20	5 .15	372 10.90	4.37
N	29 .85	84 2.46	126 3.69	91 2.67	31 .91	19 .56	380 11.13	4.65
CALM	46 1.35						46 1.35	CALM
TOTAL	424 12.42	1202 35.21	1175 34.42	443 12.98	140 4.10	30 .88	3414 100.00	3.49

NUMBER OF VALID OBSERVATIONS	3414	91.77 PCT.
NUMBER OF INVALID OBSERVATIONS	306	8.23 PCT.
TOTAL NUMBER OF OBSERVATIONS	3720	100.00 PCT.

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES

TABLE 2.17

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: FEBRUARY 1971 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.41.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
GAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	2	3	13	15	5	0	38	5.18
	.32	.48	2.07	2.39	.80	0.00	6.05	
	.06	.09	.40	.46	.15	0.00	1.17	
NE	1	3	0	1	0	0	5	2.36
	.16	.48	0.00	.16	0.00	0.00	.80	
	.03	.09	0.00	.03	0.00	0.00	.15	
ENE	0	3	1	0	0	0	4	2.41
	0.00	.48	.16	0.00	0.00	0.00	.64	
	0.00	.09	.03	0.00	0.00	0.00	.12	
E	1	0	0	0	0	0	1	1.19
	.16	0.00	0.00	0.00	0.00	0.00	.16	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
ESE	1	0	8	0	0	0	9	3.56
	.16	0.00	1.27	0.00	0.00	0.00	1.43	
	.03	0.00	.25	0.00	0.00	0.00	.28	
SE	4	1	6	3	0	0	14	3.42
	.64	.16	.96	.48	0.00	0.00	2.23	
	.12	.03	.18	.09	0.00	0.00	.43	
SSE	1	3	7	0	0	0	11	3.42
	.16	.48	1.11	0.00	0.00	0.00	1.75	
	.03	.09	.22	0.00	0.00	0.00	.34	
S	0	6	19	21	0	0	46	4.67
	0.00	.96	3.03	3.34	0.00	0.00	7.32	
	0.00	.18	.59	.65	0.00	0.00	1.42	
SSW	2	7	13	20	0	2	44	4.73
	.32	1.11	2.07	3.18	0.00	.32	7.01	
	.06	.22	.40	.62	0.00	.06	1.36	
SW	2	8	11	9	0	0	30	3.95
	.32	1.27	1.75	1.43	0.00	0.00	4.78	
	.06	.25	.34	.28	0.00	0.00	.92	
WSW	2	5	7	4	2	0	20	4.05
	.32	.80	1.11	.64	.32	0.00	3.18	
	.06	.15	.22	.12	.06	0.00	.62	
W	1	2	9	2	0	0	14	3.60
	.16	.32	1.43	.32	0.00	0.00	2.23	
	.03	.06	.28	.06	0.00	0.00		
WNW	2	9	10	10	5	0		
	.32	1.43	1.59	1.59	.96	0.00		
	.06	.28	.31	.31	.16	0.00		
NW	6	10	38	44	10	6	1	
	.32	1.59	6.05	7.01	1.59	.96	17.52	
	.06	.31	1.17	1.36	.31	.18	3.39	
NNW	6	25	21	31	29	1	113	5.28
	.96	3.98	3.34	4.94	4.62	.16	17.99	
	.18	.77	.65	.96	.89	.03	3.48	
N	3	17	34	52	16	5	127	5.47
	.48	2.71	5.41	8.28	2.55	.80	20.22	
	.09	.52	1.05	1.60	.49	.15	3.91	
CALM	5						5	CALM
	.80						.80	
	.15						.15	
TOTAL	35	102	197	212	68	14	628	4.90
	5.57	16.24	31.37	33.76	10.83	2.23	100.00	
	1.08	3.14	6.07	6.53	2.10	.43	19.35	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.18

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: FEBRUARY 1971 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.41.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	0	8	8	0	0	16	5.01
	0.00	0.00	4.73	4.73	0.00	0.00	9.47	
	0.00	0.00	.25	.25	0.00	0.00	.49	
NE	0	0	0	1	0	0	1	5.25
	0.00	0.00	0.00	.59	0.00	0.00	.59	
	0.00	0.00	0.00	.03	0.00	0.00	.03	
ENE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
E	1	1	1	0	0	0	3	2.75
	.59	.59	.59	0.00	0.00	0.00	1.78	
	.03	.03	.03	0.00	0.00	0.00	.09	
ESE	0	1	1	0	0	0	2	3.15
	0.00	.59	.59	0.00	0.00	0.00	1.18	
	0.00	.03	.03	0.00	0.00	0.00	.06	
SE	0	1	2	0	0	0	3	3.60
	0.00	.59	1.18	0.00	0.00	0.00	1.78	
	0.00	.03	.06	0.00	0.00	0.00	.09	
SSE	0	2	1	0	0	0	3	3.'
	0.00	1.18	.59	0.00	0.00	0.00	1.78	
	0.00	.06	.03	0.00	0.00	0.00	.09	
S	0	0	3	6	0	0	9	5.32
	0.00	0.00	1.78	3.55	0.00	0.00	5.33	
	0.00	0.00	.09	.18	0.00	0.00	.28	
SSW	0	2	2	6	1	0	11	5.35
	0.00	1.18	1.18	3.55	.59	0.00	6.51	
	0.00	.06	.06	.18	.03	0.00	.34	
SW	0	1	5	1	0	0	7	4.14
	0.00	.59	2.96	.59	0.00	0.00	4.14	
	0.00	.03	.15	.03	0.00	0.00	.22	
WSW	0	0	1	2	0	0	3	5.53
	0.00	0.00	.59	1.18	0.00	0.00	1.78	
	0.00	0.00	.03	.06	0.00	0.00	.09	
W	0	1	1	0	2	0	4	5.38
	0.00	.59	.59	0.00	1.18	0.00	2.37	
	0.00	.03	.03	0.00	.06	0.00	.12	
WNW	0	1	2	3	1	0	7	5.72
	0.00	.59	1.18	1.78	.59	0.00	4.14	
	0.00	.03	.06	.09	.03	0.00	.22	
NW	0	4	6	1	0	0	11	3.70
	0.00	2.37	3.55	.59	0.00	0.00	6.51	
	0.00	.12	.18	.03	0.00	0.00	.34	
NNW	6	19	12	16	1	0	54	3.86
	3.55	11.24	7.10	9.47	.59	0.00	31.95	
	.18	.59	.37	.49	.03	0.00	1.66	
N	1	10	8	14	2	0	35	4.63
	.59	5.92	4.73	8.28	1.18	0.00	20.71	
	.03	.31	.25	.43	.06	0.00	1.08	
CALM	0						0	CALM
	0.00						0.00	
	0.00						0.00	
TOTAL	8	43	53	58	7	0	169	4.41
	4.73	25.44	31.36	34.32	4.14	0.00	100.00	
	.25	1.33	1.63	1.79	.22	0.00	5.21	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.19

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: FEBRUARY 1971 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.41.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	4	8	20	1	0	33	5.10
	0.00	1.59	3.17	7.94	.40	0.00	13.10	
	0.00	.12	.25	.62	.03	0.00	1.02	
NE	0	1	1	0	0	0	2	3.08
	0.00	.40	.40	0.00	0.00	0.00	.79	
	0.00	.03	.03	0.00	0.00	0.00	.06	
ENE	0	3	0	0	0	0	3	2.46
	0.00	1.19	0.00	0.00	0.00	0.00	1.19	
	0.00	.09	0.00	0.00	0.00	0.00	.09	
E	0	11	3	0	0	0	14	2.80
	0.00	4.37	1.19	0.00	0.00	0.00	5.56	
	0.00	.34	.09	0.00	0.00	0.00	.43	
ESE	0	3	1	0	0	0	4	3.06
	0.00	1.19	.40	0.00	0.00	0.00	1.59	
	0.00	.09	.03	0.00	0.00	0.00	.12	
SE	0	0	3	1	0	0	4	4.06
	0.00	0.00	1.19	.40	0.00	0.00	1.59	
	0.00	0.00	.09	.03	0.00	0.00	.12	
SSE	0	1	1	3	1	0	6	5.65
	0.00	.40	.40	1.19	.40	0.00	2.38	
	0.00	.03	.03	.09	.03	0.00	.18	
S	0	1	1	2	0	0	8	5.32
	0.00	.40	.40	2.38	0.00	0.00	3.17	
	0.00	.03	.03	.18	0.00	0.00	.25	
SSW	1	1	1	7	0	0	10	5.14
	.40	.40	.40	2.78	0.00	0.00	3.97	
	.03	.03	.03	.22	0.00	0.00	.31	
SW	0	2	3	1	0	0	6	4.02
	0.00	.79	1.19	.40	0.00	0.00	2.38	
	0.00	.06	.09	.03	0.00	0.00	.18	
WSW	0	2	1	1	0	0	4	4.35
	0.00	.79	.40	.40	0.00	0.00	1.59	
	0.00	.06	.03	.03	0.00	0.00	.12	
W	0	2	2	3	0	0	7	4.49
	0.00	.79	.79	1.19	0.00	0.00	2.78	
	0.00	.06	.06	.09	0.00	0.00	.22	
WNW	0	3	5	0	1	0	9	4.16
	0.00	1.19	1.98	0.00	.40	0.00	3.57	
	0.00	.09	.15	0.00	.03	0.00	.28	
NW	0	0	8	3	3	0	14	5.27
	0.00	0.00	3.17	1.19	1.19	0.00	5.56	
	0.00	0.00	.25	.09	.09	0.00	.43	
NNW	1	10	19	25	15	0	70	5.37
	.40	3.97	7.54	9.92	5.95	0.00	27.78	
	.03	.31	.59	.77	.46	0.00	2.16	
N	0	5	27	18	7	0	57	5.02
	0.00	1.98	10.71	7.14	2.78	0.00	22.62	
	0.00	.15	.83	.55	.22	0.00	1.76	
CALM	1						1	CALM
	.40						.40	
	.03						.03	
TOTAL	3	49	84	88	28	0	252	4.85
	1.19	19.44	33.33	34.92	11.11	0.00	100.00	
	.09	1.51	2.59	2.71	.86	0.00	7.77	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.20

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: FEBRUARY 1971 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/24/77. 11.41.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	4	32	59	41	4	0	140	4.23
	.33	2.67	4.93	3.43	.33	0.00	11.70	
	.12	.99	1.82	1.26	.12	0.00	4.31	
NE	5	38	22	0	0	0	65	2.66
	.42	3.17	1.84	0.00	0.00	0.00	5.43	
	.15	1.17	.68	0.00	0.00	0.00	2.00	
ENE	7	26	5	0	0	0	38	2.21
	.58	2.17	.42	0.00	0.00	0.00	3.17	
	.22	.80	.15	0.00	0.00	0.00	1.17	
E	7	23	5	0	0	0	35	2.13
	.58	1.92	.42	0.00	0.00	0.00	2.92	
	.22	.71	.15	0.00	0.00	0.00	1.08	
ESE	5	25	12	5	0	0	47	2.98
	.42	2.09	1.00	.42	0.00	0.00	3.93	
	.15	.77	.37	.15	0.00	0.00	1.45	
SE	4	34	26	8	0	0	72	3.20
	.33	2.84	2.17	.67	0.00	0.00	6.02	
	.12	1.05	.80	.25	0.00	0.00	2.22	
SSE	5	16	35	23	0	0	76	4.13
	.17	1.34	2.92	1.92	0.00	0.00	6.35	
	.06	.49	1.08	.71	0.00	0.00	2.34	
S	1	16	51	20	2	0	90	4.17
	.08	1.34	4.26	1.67	.17	0.00	7.52	
	.03	.49	1.57	.62	.06	0.00	2.77	
SSW	1	25	32	23	1	0	82	4.09
	.08	2.09	2.67	1.92	.08	0.00	6.85	
	.03	.77	.99	.71	.03	0.00	2.53	
SW	3	11	21	11	1	0	47	4.01
	.25	.92	1.75	.92	.08	0.00	3.93	
	.09	.34	.65	.34	.03	0.00	1.45	
WSW	5	6	13	5	0	0	29	3.48
	.42	.50	1.09	.42	0.00	0.00	2.42	
	.15	.18	.40	.15	0.00	0.00	.89	
W	4	9	10	5	0	0	28	3.33
	.33	.75	.84	.42	0.00	0.00	2.34	
	.12	.28	.31	.15	0.00	0.00	.86	
WNW	5	11	10	16	2	0	44	4.19
	.42	.92	.84	1.34	.17	0.00	3.68	
	.15	.34	.31	.49	.06	0.00	1.36	
NW	4	33	32	26	5	0	100	4.04
	.33	2.76	2.67	2.17	.42	0.00	8.35	
	.12	1.02	.99	.80	.15	0.00	3.08	
NNW	1	23	49	39	23	6	141	5.31
	.08	1.92	4.09	3.26	1.92	.50	11.78	
	.03	.71	1.51	1.20	.71	.18	4.35	
N	4	34	60	29	21	1	149	4.71
	.33	2.84	5.01	2.42	1.75	.08	12.45	
	.12	1.05	1.85	.89	.65	.03	4.59	
CALM	14						14	CALM
	1.17						1.17	
	.43						.43	
TOTAL	76	362	442	251	59	7	1197	3.96
	6.35	30.24	36.93	20.97	4.93	.58	100.00	
	2.34	11.16	13.62	7.73	1.82	.22	36.89	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.21

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: FEBRUARY 1971 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.41.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	9	6	0	0	0	18	2.37
	.48	1.44	.96	0.00	0.00	0.00	2.88	
	.09	.28	.18	0.00	0.00	0.00	.55	
NE	4	1	0	0	0	0	5	1.10
	.64	.16	0.00	0.00	0.00	0.00	.80	
	.12	.03	0.00	0.00	0.00	0.00	.15	
ENE	2	1	0	0	0	0	3	1.38
	.32	.16	0.00	0.00	0.00	0.00	.48	
	.06	.03	0.00	0.00	0.00	0.00	.09	
E	2	0	0	0	0	0	2	1.00
	.32	0.00	0.00	0.00	0.00	0.00	.32	
	.06	0.00	0.00	0.00	0.00	0.00	.06	
ESE	5	10	5	0	0	0	20	2.11
	.80	1.60	.80	0.00	0.00	0.00	3.20	
	.15	.31	.15	0.00	0.00	0.00	.62	
SE	1	25	15	0	0	0	41	2.88
	.16	4.00	2.40	0.00	0.00	0.00	6.56	
	.03	.77	.46	0.00	0.00	0.00	1.26	
SSE	3	16	33	2	0	0	54	3.42
	.48	2.56	5.28	.32	0.00	0.00	8.64	
	.09	.49	1.02	.06	0.00	0.00	1.66	
S	1	27	27	1	0	0	56	3.00
	.16	4.32	4.32	.16	0.00	0.00	8.96	
	.03	.83	.83	.03	0.00	0.00	1.73	
SSW	1	30	28	1	0	0	0	3.07
	.16	4.80	4.48	.16	0.00	0.00	9.60	
	.03	.92	.86	.03	0.00	0.00	1.85	
SW	2	35	28	0	0	0	65	2.88
	.32	5.60	4.48	0.00	0.00	0.00	10.40	
	.06	1.08	.86	0.00	0.00	0.00	2.00	
WSW	10	23	15	0	0	0	48	2.52
	1.60	3.68	2.40	0.00	0.00	0.00	7.68	
	.31	.71	.46	0.00	0.00	0.00	1.48	
W	5	9	7	3	0	0	24	2.65
	.80	1.44	1.12	.48	0.00	0.00	3.84	
	.15	.28	.22	.09	0.00	0.00	.74	
WNW	11	9	18	0	0	0	38	2.69
	1.76	1.44	2.88	0.00	0.00	0.00	6.08	
	.34	.28	.55	0.00	0.00	0.00	1.17	
NW	7	53	37	1	0	0	98	2.86
	1.12	8.48	5.92	.16	0.00	0.00	15.68	
	.22	1.63	1.14	.03	0.00	0.00	3.02	
NNW	6	34	27	3	0	0	70	2.95
	.96	5.44	4.32	.48	0.00	0.00	11.20	
	.18	1.05	.83	.09	0.00	0.00	2.16	
N	8	3	7	1	0	0	19	2.44
	1.28	.48	1.12	.16	0.00	0.00	3.04	
	.25	.09	.22	.03	0.00	0.00	.59	
CALM	4						4	CALM
	.64						.64	
	.12						.12	
TOTAL	75	285	253	12	0	0	625	2.81
	12.00	45.60	40.48	1.92	0.00	0.00	100.00	
	2.31	8.78	7.80	.37	0.00	0.00	19.26	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.22

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: FEBRUARY 1971 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.41.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	0	0	0	0	0	3	.98
	1.18	0.00	0.00	0.00	0.00	0.00	1.18	
	.09	0.00	0.00	0.00	0.00	0.00	.09	
NE	2	0	0	0	0	0	2	.79
	.78	0.00	0.00	0.00	0.00	0.00	.78	
	.06	0.00	0.00	0.00	0.00	0.00	.06	
ENE	1	1	0	0	0	0	2	1.39
	.39	.39	0.00	0.00	0.00	0.00	.78	
	.03	.03	0.00	0.00	0.00	0.00	.06	
E	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ESE	2	2	0	0	0	0	4	1.48
	.78	.78	0.00	0.00	0.00	0.00	1.57	
	.06	.06	0.00	0.00	0.00	0.00	.12	
SE	1	8	4	0	0	0	13	2.64
	.39	3.14	1.57	0.00	0.00	0.00	5.10	
	.03	.25	.12	0.00	0.00	0.00	.40	
SSE	2	32	2	0	0	0	36	2.10
	.78	12.55	.78	0.00	0.00	0.00	14.12	
	.06	.99	.06	0.00	0.00	0.00	1.11	
S	3	22	3	0	0	0	28	2.13
	1.18	8.63	1.18	0.00	0.00	0.00	10.98	
	.09	.68	.09	0.00	0.00	0.00	.86	
SSW	1	22	3	0	0	0	26	2.24
	.39	8.63	1.18	0.00	0.00	0.00	10.20	
	.03	.68	.09	0.00	0.00	0.00	.80	
SW	3	21	17	0	0	0	41	2.66
	1.18	8.24	6.67	0.00	0.00	0.00	16.08	
	.09	.65	.52	0.00	0.00	0.00	1.26	
WSW	4	10	3	0	0	0	17	2.10
	1.57	3.92	1.18	0.00	0.00	0.00	6.67	
	.12	.31	.09	0.00	0.00	0.00	.52	
W	8	8	2	0	0	0	18	1.71
	3.14	3.14	.78	0.00	0.00	0.00	7.06	
	.25	.25	.06	0.00	0.00	0.00	.55	
WNW	4	8	4	0	0	0	16	2.15
	1.57	3.14	1.57	0.00	0.00	0.00	6.27	
	.12	.25	.12	0.00	0.00	0.00	.49	
NW	4	11	2	0	0	0	17	1.97
	1.57	4.31	.78	0.00	0.00	0.00	6.67	
	.12	.34	.06	0.00	0.00	0.00	.52	
NNW	6	11	2	0	0	0	19	2.04
	2.35	4.31	.78	0.00	0.00	0.00	7.45	
	.18	.34	.06	0.00	0.00	0.00	.59	
N	8	1	1	0	0	0	10	1.02
	3.14	.39	.39	0.00	0.00	0.00	3.92	
	.25	.03	.03	0.00	0.00	0.00	.31	
CALM	3						3	CALM
	1.18						1.18	
	.09						.09	
TOTAL	55	157	43	0	0	0	255	2.09
	21.57	61.57	16.86	0.00	0.00	0.00	100.00	
	1.69	4.84	1.33	0.00	0.00	0.00	7.86	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.23

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: FEBRUARY 1971 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.41.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NE	3	0	0	0	0	0	3	.66
	2.52	0.00	0.00	0.00	0.00	0.00	2.52	
	.09	0.00	0.00	0.00	0.00	0.00	.09	
ENE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
E	2	1	0	0	0	0	3	1.50
	1.68	.84	0.00	0.00	0.00	0.00	2.52	
	.06	.03	0.00	0.00	0.00	0.00	.09	
ESE	3	3	0	0	0	0	6	1.56
	2.52	2.52	0.00	0.00	0.00	0.00	5.04	
	.09	.09	0.00	0.00	0.00	0.00	.18	
SE	0	2	1	0	0	0	3	2.50
	0.00	1.68	.84	0.00	0.00	0.00	2.52	
	0.00	.06	.03	0.00	0.00	0.00	.09	
SSE	0	2	0	0	0	0	2	1.43
	0.00	1.68	0.00	0.00	0.00	0.00	1.68	
	0.00	.06	0.00	0.00	0.00	0.00	.06	
S	0	9	0	0	0	0	9	2.08
	0.00	7.56	0.00	0.00	0.00	0.00	7.56	
	0.00	.28	0.00	0.00	0.00	0.00	.28	
SSW	3	12	1	0	0	0	16	2.17
	2.52	10.08	.84	0.00	0.00	0.00	13.45	
	.09	.37	.03	0.00	0.00	0.00	.49	
SW	4	5	9	0	0	0	18	2.75
	3.36	4.20	7.56	0.00	0.00	0.00	15.13	
	.12	.15	.28	0.00	0.00	0.00	.55	
WSW	9	6	0	0	0	0	15	1.48
	7.56	5.04	0.00	0.00	0.00	0.00	12.61	
	.28	.18	0.00	0.00	0.00	0.00	.46	
W	7	9	0	0	0	0	16	1.54
	5.88	7.56	0.00	0.00	0.00	0.00	13.45	
	.22	.28	0.00	0.00	0.00	0.00	.49	
WNW	2	1	0	0	0	0	3	1.29
	1.68	.84	0.00	0.00	0.00	0.00	2.52	
	.06	.03	0.00	0.00	0.00	0.00	.09	
NW	2	4	0	0	0	0	6	1.66
	1.68	3.36	0.00	0.00	0.00	0.00	5.04	
	.06	.12	0.00	0.00	0.00	0.00	.18	
NNW	3	6	0	0	0	0	9	1.91
	2.52	5.04	0.00	0.00	0.00	0.00	7.56	
	.09	.18	0.00	0.00	0.00	0.00	.28	
N	5	2	1	0	0	0	8	1.52
	4.20	1.68	.84	0.00	0.00	0.00	6.72	
	.15	.06	.03	0.00	0.00	0.00	.25	
CALM	2						2	CALM
	1.68						1.68	
	.06						.06	
TOTAL	45	62	12	0	0	0	119	1.85
	37.82	52.10	10.08	0.00	0.00	0.00	100.00	
	1.39	1.91	.37	0.00	0.00	0.00	3.67	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.24

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: FEBRUARY 1971 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.41.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	12 .37	48 1.48	94 2.90	84 2.59	10 .31	0 0.00	248 7.64	4.37
NE	15 .46	43 1.33	23 .71	2 .06	0 0.00	0 0.00	83 2.56	2.47
ENE	10 .31	34 1.05	6 .18	0 0.00	0 0.00	0 0.00	50 1.54	2.19
E	13 .40	36 1.11	9 .28	0 0.00	0 0.00	0 0.00	58 1.79	2.23
ESE	16 .49	44 1.36	27 .83	5 .15	0 0.00	0 0.00	92 2.84	2.70
SE	10 .31	71 2.19	57 1.76	12 .37	0 0.00	0 0.00	150 4.62	3.10
SSE	8 .25	72 2.22	79 2.43	28 .86	1 .03	0 0.00	188 5.79	3.51
S	5 .15	81 2.50	104 3.20	54 1.66	2 .06	0 0.00	246 7.58	3.77
SSW	9 .28	99 3.05	80 2.47	57 1.76	2 .06	2 .06	249 7.67	3.75
SW	14 .43	83 2.56	94 2.90	22 .68	1 .03	0 0.00	214 6.59	3.30
WSW	30 .92	52 1.60	40 1.23	12 .37	2 .06	0 0.00	136 4.19	2.90
W	25 .77	40 1.23	31 .96	13 .40	2 .06	0 0.00	111 3.42	2.85
WNW	24 .74	42 1.29	49 1.51	29 .89	10 .31	0 0.00	154 4.75	3.76
NW	19 .59	115 3.54	123 3.79	75 2.31	18 .55	6 .18	356 10.97	4.03
NNW	29 .89	128 3.94	130 4.01	114 3.51	68 2.10	7 .22	476 14.67	4.60
N	29 .89	72 2.22	138 4.25	114 3.51	46 1.42	6 .18	405 12.48	4.73
CALM	29 .89						29 .89	CALM
TOTAL	297 9.15	1060 32.67	1084 33.41	621 19.14	162 4.99	21 .65	3245 100.00	3.79

NUMBER OF VALID OBSERVATIONS	3245	95.89 PCT.
NUMBER OF INVALID OBSERVATIONS	139	4.11 PCT.
TOTAL NUMBER OF OBSERVATIONS	3384	100.00 PCT.

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES

TABLE 2.25

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.44.03.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7435-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1	5	12	21	2	0	41	4.85
	.14	.69	1.65	2.89	.28	0.00	5.64	
	.02	.12	.29	.51	.05	0.00	1.00	
NE	0	4	9	9	0	0	22	4.28
	0.00	.55	1.24	1.24	0.00	0.00	3.03	
	0.00	.10	.22	.22	0.00	0.00	.54	
ENE	0	5	7	0	0	0	12	2.99
	0.00	.69	.96	0.00	0.00	0.00	1.65	
	0.00	.12	.17	0.00	0.00	0.00	.29	
E	1	1	10	0	0	0	12	3.60
	.14	.14	1.38	0.00	0.00	0.00	1.65	
	.02	.02	.24	0.00	0.00	0.00	.29	
ESE	0	4	5	1	0	0	10	3.64
	0.00	.55	.69	.14	0.00	0.00	1.38	
	0.00	.10	.12	.02	0.00	0.00	.24	
SE	2	9	14	2	1	0	28	3.53
	.28	1.24	1.93	.28	.14	0.00	3.85	
	.05	.22	.34	.05	.02	0.00	.69	
SSE	0	4	10	5	2	0	21	4.48
	0.00	.55	1.38	.69	.28	0.00	2.89	
	0.00	.10	.24	.12	.05	0.00	.51	
S	0	8	4	9	15	0	36	5.98
	0.00	1.10	.55	1.24	2.06	0.00	4.95	
	0.00	.20	.10	.22	.37	0.00	.88	
SSW	0	2	3	12	17	8	42	7.86
	0.00	.28	.41	1.65	2.34	1.16	5.78	
	0.00	.05	.07	.29	.42	.20	1.03	
SW	3	2	7	11	12	0	35	6.00
	.41	.28	.96	1.51	1.65	0.00	4.81	
	.07	.05	.17	.27	.29	0.00	.86	
WSW	3	2	6	0	1	0	12	3.20
	.41	.28	.83	0.00	.14	0.00	1.65	
	.07	.05	.15	0.00	.02	0.00	.29	
W	0	8	6	6	0	0	20	4.00
	0.00	1.10	.83	.83	0.00	0.00	2.75	
	0.00	.20	.15	.15	0.00	0.00	.49	
WNW	4	3	11	6	3	1	28	4.60
	.55	.41	1.51	.83	.41	.14	3.85	
	.10	.07	.27	.15	.07	.02	.69	
NW	2	1	22	23	37	6	91	6.89
	.28	.14	3.03	3.16	5.09	.83	12.52	
	.05	.02	.54	.56	.91	.15	2.23	
NNW	4	6	28	57	53	5	153	6.54
	.55	.83	3.85	7.84	7.29	.69	21.05	
	.10	.15	.69	1.40	1.30	.12	3.75	
N	5	11	36	65	25	4	146	5.80
	.69	1.51	4.95	8.94	3.44	.55	20.08	
	.12	.27	.88	1.59	.61	.10	3.57	
CALM	18						18	CALM
	2.48						2.48	
	.44						.44	
TOTAL	43	75	190	227	168	24	727	5.61
	5.91	10.32	26.13	31.22	23.11	3.30	100.00	
	1.05	1.84	4.65	5.56	4.11	.59	17.80	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.26

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1970 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.44.03.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	2	2	5	1	0	13	4.11
	1.83	1.22	1.22	3.05	.61	0.00	7.93	
	.07	.05	.05	.12	.02	0.00	.32	
NE	0	0	3	2	0	0	5	4.68
	0.00	0.00	1.83	1.22	0.00	0.00	3.05	
	0.00	0.00	.07	.05	0.00	0.00	.12	
ENE	0	1	4	0	0	0	5	3.51
	0.00	.61	2.44	0.00	0.00	0.00	3.05	
	0.00	.02	.10	0.00	0.00	0.00	.12	
E	0	0	2	1	1	0	4	5.53
	0.00	0.00	1.22	.61	.61	0.00	2.44	
	0.00	0.00	.05	.02	.02	0.00	.10	
ESE	0	1	3	2	0	0	6	4.18
	0.00	.61	1.83	1.22	0.00	0.00	3.66	
	0.00	.02	.07	.05	0.00	0.00	.15	
SE	0	1	4	3	3	0	11	5.78
	0.00	.61	2.44	1.83	1.83	0.00	6.71	
	0.00	.02	.10	.07	.07	0.00	.27	
SSE	0	1	2	5	1	0	9	5.58
	0.00	.61	1.22	3.05	.61	0.00	5.49	
	0.00	.02	.05	.12	.02	0.00	.22	
S	0	1	4	2	1	0	8	5.16
	0.00	.61	2.44	1.22	.61	0.00	4.88	
	0.00	.02	.10	.05	.02	0.00	.20	
SSW	0	0	4	2	0	1	7	5.67
	0.00	0.00	2.44	1.22	0.00	.61	4.27	
	0.00	0.00	.10	.05	0.00	.02	.17	
SW	0	0	4	4	1	1	10	6.17
	0.00	0.00	2.44	2.44	.61	.61	6.10	
	0.00	0.00	.10	.10	.02	.02	.24	
WSW	0	0	1	1	0	0	2	5.00
	0.00	0.00	.61	.61	0.00	0.00	1.22	
	0.00	0.00	.02	.02	0.00	0.00	.05	
W	0	1	3	1	1	0	6	5.28
	0.00	.61	1.83	.61	.61	0.00	3.66	
	0.00	.02	.07	.02	.02	0.00	.15	
WNW	0	1	2	5	1	2	11	6.72
	0.00	.61	1.22	3.05	.61	1.22	6.71	
	0.00	.02	.05	.12	.02	.05	.27	
NW	0	0	4	4	1	7	16	8.53
	0.00	0.00	2.44	2.44	.61	4.27	9.76	
	0.00	0.00	.10	.10	.02	.17	.39	
NNW	0	1	9	8	2	0	20	5.36
	0.00	.61	5.49	4.88	1.22	0.00	12.20	
	0.00	.02	.22	.20	.05	0.00	.49	
N	0	3	6	12	10	0	31	6.27
	0.00	1.83	3.66	7.32	6.10	0.00	18.90	
	0.00	.07	.15	.29	.24	0.00	.76	
CALM	0						0	CALM
	0.00						0.00	
	0.00						0.00	
TOTAL	3	13	57	57	23	11	164	5.80
	1.83	7.93	34.76	34.76	14.02	6.71	100.00	
	.07	.32	1.40	1.40	.56	.27	4.01	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.27

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.44.03.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	4	17	1	3	0	25	4.49
	0.00	1.53	6.49	.38	1.15	0.00	9.54	
	0.00	.10	.42	.02	.07	0.00	.61	
NE	0	1	6	2	0	0	9	4.13
	0.00	.38	2.29	.76	0.00	0.00	3.44	
	0.00	.02	.15	.05	0.00	0.00	.22	
ENE	0	0	4	0	0	0	4	3.98
	0.00	0.00	1.53	0.00	0.00	0.00	1.53	
	0.00	0.00	.10	0.00	0.00	0.00	.10	
E	0	4	3	1	1	0	9	3.72
	0.00	1.53	1.15	.38	.38	0.00	3.44	
	0.00	.10	.07	.02	.02	0.00	.22	
ESE	1	2	4	1	0	0	8	3.72
	.38	.76	1.53	.38	0.00	0.00	3.05	
	.02	.05	.10	.02	0.00	0.00	.20	
SE	0	2	8	3	7	0	20	5.66
	0.00	.76	3.05	1.15	2.67	0.00	7.63	
	0.00	.05	.20	.07	.17	0.00	.49	
SSE	0	1	4	6	0	0	11	5.30
	0.00	.38	1.53	2.29	0.00	0.00	4.20	
	0.00	.02	.10	.15	0.00	0.00	.27	
S	0	1	2	4	3	0	10	6.15
	0.00	.38	.76	1.53	1.15	0.00	3.82	
	0.00	.02	.05	.10	.07	0.00	.24	
SSW	1	1	3	3	2	0	10	4.86
	.38	.38	1.15	1.15	.76	0.00	3.82	
	.02	.02	.07	.07	.05	0.00	.24	
SW	0	1	1	7	2	1	12	6.50
	0.00	.38	.38	2.67	.76	.38	4.58	
	0.00	.02	.02	.17	.05	.02	.29	
WSW	0	0	3	0	1	0	4	5.03
	0.00	0.00	1.15	0.00	.38	0.00	1.53	
	0.00	0.00	.07	0.00	.02	0.00	.10	
W	0	1	3	0	0	0	4	4.09
	0.00	.38	1.15	0.00	0.00	0.00	1.53	
	0.00	.02	.07	0.00	0.00	0.00	.10	
WNW	0	1	0	5	2	1	9	7.17
	0.00	.38	0.00	1.91	.76	.38	3.44	
	0.00	.02	0.00	.12	.05	.02	.22	
NW	0	3	3	6	9	4	25	7.27
	0.00	1.15	1.15	2.29	3.44	1.53	9.54	
	0.00	.07	.07	.15	.22	.10	.61	
NNW	0	0	8	18	11	0	37	6.45
	0.00	0.00	3.05	6.87	4.20	0.00	14.12	
	0.00	0.00	.20	.44	.27	0.00	.91	
N	1	3	16	26	15	0	61	5.43
	.38	1.15	6.11	9.92	5.73	0.00	23.28	
	.02	.07	.39	.64	.37	0.00	1.49	
CALM	4						4	CALM
	1.53						1.53	
	.10						.10	
TOTAL	7	25	85	83	56	6	262	5.59
	2.67	9.54	32.44	31.68	21.37	2.29	100.00	
	.17	.61	2.08	2.03	1.37	.15	6.41	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.28

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.44.03.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
BAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	2	42	77	38	5	0	164	4.19
	.13	2.63	4.82	2.38	.31	0.00	10.26	
	.05	1.03	1.88	.93	.12	0.00	4.01	
NE	5	34	87	26	4	0	156	4.02
	.31	2.13	5.44	1.63	.25	0.00	9.76	
	.12	.83	2.13	.64	.10	0.00	3.82	
ENE	5	30	54	7	0	0	96	3.42
	.31	1.88	3.38	.44	0.00	0.00	6.01	
	.12	.73	1.32	.17	0.00	0.00	2.35	
E	4	33	57	8	1	1	104	3.55
	.25	2.07	3.57	.50	.06	.06	6.51	
	.10	.81	1.40	.20	.02	.02	2.55	
ESE	2	27	36	13	7	1	86	4.11
	.13	1.69	2.25	.81	.44	.06	5.38	
	.05	.66	.88	.32	.17	.02	2.11	
SE	4	38	59	55	8	2	166	4.52
	.25	2.38	3.69	3.44	.50	.13	10.39	
	.10	.93	1.44	1.35	.20	.05	4.06	
SSE	8	31	40	25	1	1	106	3.83
	.50	1.94	2.50	1.56	.06	.06	6.63	
	.20	.76	.98	.61	.02	.02	2.59	
S	3	14	25	14	1	3	60	4.41
	.19	.88	1.56	.88	.06	.19	3.75	
	.07	.34	.61	.34	.02	.07	1.47	
SSW	0	5	12	31	1	2	51	5.41
	0.00	.31	.75	1.94	.06	.13	3.19	
	0.00	.12	.29	.76	.02	.05	1.25	
SW	0	2	17	8	3	3	33	5.43
	0.00	.13	1.06	.50	.19	.19	2.07	
	0.00	.05	.42	.20	.07	.07	.81	
WSW	1	7	7	7	1	3	26	5.05
	.06	.44	.44	.44	.06	.19	1.63	
	.02	.17	.17	.17	.02	.07	.64	
W	1	8	10	11	6	0	36	4.82
	.06	.50	.63	.69	.38	0.00	2.25	
	.02	.20	.24	.27	.15	0.00	.88	
WNW	1	4	17	11	0	5	38	5.25
	.06	.25	1.06	.69	0.00	.31	2.38	
	.02	.10	.42	.27	0.00	.12	.93	
NW	0	17	42	30	11	0	100	4.77
	0.00	1.06	2.63	1.88	.69	0.00	6.26	
	0.00	.42	1.03	.73	.27	0.00	2.45	
NNW	3	20	47	52	8	6	136	5.19
	.19	1.25	2.94	3.25	.50	.38	8.51	
	.07	.49	1.15	1.27	.20	.15	3.33	
N	3	46	108	68	3	1	229	4.30
	.19	2.88	6.76	4.26	.19	.06	14.33	
	.07	1.13	2.64	1.66	.07	.02	5.61	
CALM	11						11	CALM
	.69						.69	
	.27						.27	
TOTAL	53	358	695	404	60	28	1598	4.33
	3.32	22.40	43.49	25.28	3.75	1.75	100.00	
	1.30	8.76	17.01	9.89	1.47	.69	39.12	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.29

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.44.03.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	9	24	22	3	0	0	58	2.79
	1.02	2.71	2.49	.34	0.00	0.00	6.56	
	.22	.59	.54	.07	0.00	0.00	1.42	
NE	7	19	6	0	0	0	32	2.29
	.79	2.15	.68	0.00	0.00	0.00	3.62	
	.17	.47	.15	0.00	0.00	0.00	.78	
ENE	8	13	1	0	0	0	22	1.66
	.90	1.47	.11	0.00	0.00	0.00	2.49	
	.20	.32	.02	0.00	0.00	0.00	.54	
E	8	17	7	0	0	0	32	2.16
	.90	1.92	.79	0.00	0.00	0.00	3.62	
	.20	.42	.17	0.00	0.00	0.00	.78	
ESE	10	25	13	2	0	0	50	2.50
	1.13	2.83	1.47	.23	0.00	0.00	5.66	
	.24	.61	.32	.05	0.00	0.00	1.22	
SE	11	31	52	16	0	0	110	3.44
	1.24	3.51	5.88	1.81	0.00	0.00	12.44	
	.27	.76	1.27	.39	0.00	0.00	2.69	
SSE	9	29	37	10	0	0	85	3.22
	1.02	3.28	4.19	1.13	0.00	0.00	9.62	
	.22	.71	.91	.24	0.00	0.00	2.08	
S	6	25	31	16	2	0	80	3.79
	.68	2.83	3.51	1.81	.23	0.00	9.05	
	.15	.61	.76	.39	.05	0.00	1.96	
SSW	3	14	44	12	1	0	74	3.79
	.34	1.58	4.98	1.36	.11	0.00	8.37	
	.07	.34	1.08	.29	.02	0.00	1.81	
SW	4	8	17	5	0	0	34	3.63
	.45	.90	1.92	.57	0.00	0.00	3.85	
	.10	.20	.42	.12	0.00	0.00	.83	
WSW	3	4	2	0	0	0	9	2.38
	.34	.45	.23	0.00	0.00	0.00	1.02	
	.07	.10	.05	0.00	0.00	0.00	.22	
W	3	9	2	0	0	0	14	2.24
	.34	1.02	.23	0.00	0.00	0.00	1.58	
	.07	.22	.05	0.00	0.00	0.00	.34	
WNW	3	7	12	0	0	0	22	3.00
	.34	.79	1.36	0.00	0.00	0.00	2.49	
	.07	.17	.29	0.00	0.00	0.00	.54	
NW	3	13	28	2	3	0	49	3.77
	.34	1.47	3.17	.23	.34	0.00	5.54	
	.07	.32	.69	.05	.07	0.00	1.20	
NNW	10	52	67	2	0	0	131	3.07
	1.13	5.88	7.58	.23	0.00	0.00	14.82	
	.24	1.27	1.64	.05	0.00	0.00	3.21	
N	10	33	25	4	1	0	73	2.87
	1.13	3.73	2.83	.45	.11	0.00	8.26	
	.24	.81	.61	.10	.02	0.00	1.79	
CALM	9						9	CALM
	1.02						1.02	
	.22						.22	
TOTAL	116	323	366	72	7	0	884	3.10
	13.12	36.54	41.40	8.14	.79	0.00	100.00	
	2.84	7.91	8.96	1.76	.17	0.00	21.64	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.30

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.44.03.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	2	1	0	0	0	6	1.80
	.98	.65	.33	0.00	0.00	0.00	1.96	
	.07	.05	.02	0.00	0.00	0.00	.15	
NE	5	4	1	1	0	0	11	2.12
	1.63	1.31	.33	.33	0.00	0.00	3.59	
	.12	.10	.02	.02	0.00	0.00	.27	
ENE	6	3	2	1	0	0	12	2.41
	1.96	.98	.65	.33	0.00	0.00	3.92	
	.15	.07	.05	.02	0.00	0.00	.29	
E	4	10	0	0	0	0	14	1.74
	1.31	3.27	0.00	0.00	0.00	0.00	4.58	
	.10	.24	0.00	0.00	0.00	0.00	.34	
ESE	3	15	0	2	0	0	20	2.20
	.98	4.90	0.00	.65	0.00	0.00	6.54	
	.07	.37	0.00	.05	0.00	0.00	.49	
SE	7	18	3	0	0	0	28	2.07
	2.29	5.88	.98	0.00	0.00	0.00	9.15	
	.17	.44	.07	0.00	0.00	0.00	.69	
SSE	2	31	13	0	0	0	46	2.53
	.65	10.13	4.25	0.00	0.00	0.00	15.03	
	.05	.76	.32	0.00	0.00	0.00	1.13	
S	7	41	6	0	0	0	54	2.23
	2.29	13.40	1.96	0.00	0.00	0.00	17.65	
	.17	1.00	.15	0.00	0.00	0.00	1.32	
SSW	2	24	2	0	0	0	28	2.10
	.65	7.84	.65	0.00	0.00	0.00	9.15	
	.05	.59	.05	0.00	0.00	0.00	.68	
SW	5	4	1	0	0	0	10	1.62
	1.63	1.31	.33	0.00	0.00	0.00	3.27	
	.12	.10	.02	0.00	0.00	0.00	.24	
WSW	4	7	3	0	0	0	14	2.00
	1.31	2.29	.98	0.00	0.00	0.00	4.58	
	.10	.17	.07	0.00	0.00	0.00	.34	
W	1	3	1	0	0	0	5	1.98
	.33	.98	.33	0.00	0.00	0.00	1.63	
	.02	.07	.02	0.00	0.00	0.00	.12	
WNW	4	5	1	0	0	0	10	1.83
	1.31	1.63	.33	0.00	0.00	0.00	3.27	
	.10	.12	.02	0.00	0.00	0.00	.24	
NW	2	7	3	0	0	0	12	2.43
	.65	2.29	.98	0.00	0.00	0.00	3.92	
	.05	.17	.07	0.00	0.00	0.00	.29	
NNW	2	9	6	0	0	0	17	2.65
	.65	2.94	1.96	0.00	0.00	0.00	5.56	
	.05	.22	.15	0.00	0.00	0.00	.42	
N	3	4	2	1	0	0	10	2.56
	.98	1.31	.65	.33	0.00	0.00	3.27	
	.07	.10	.05	.02	0.00	0.00	.24	
CALM	9						9	CALM
	2.94						2.94	
	.22						.22	
TOTAL	69	187	45	5	0	0	306	2.15
	22.55	61.11	14.71	1.63	0.00	0.00	100.00	
	1.69	4.58	1.10	.12	0.00	0.00	7.49	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.31

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.44.03.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1	0	0	0	0	0	1	1.34
	.69	0.00	0.00	0.00	0.00	0.00	.69	
	.02	0.00	0.00	0.00	0.00	0.00	.02	
NE	3	3	1	0	0	0	7	2.01
	2.08	2.08	.69	0.00	0.00	0.00	4.86	
	.07	.07	.02	0.00	0.00	0.00	.17	
ENE	6	0	0	0	0	0	6	1.24
	4.17	0.00	0.00	0.00	0.00	0.00	4.17	
	.15	0.00	0.00	0.00	0.00	0.00	.15	
E	6	7	1	0	0	0	14	1.83
	4.17	4.86	.69	0.00	0.00	0.00	9.72	
	.15	.17	.02	0.00	0.00	0.00	.34	
ESE	1	3	0	0	0	0	4	1.74
	.69	2.08	0.00	0.00	0.00	0.00	2.78	
	.02	.07	0.00	0.00	0.00	0.00	.10	
SE	7	8	0	0	0	0	15	1.55
	4.86	5.56	0.00	0.00	0.00	0.00	10.42	
	.17	.20	0.00	0.00	0.00	0.00	.37	
SSE	3	13	0	0	0	0	16	1.88
	2.08	9.03	0.00	0.00	0.00	0.00	11.11	
	.07	.32	0.00	0.00	0.00	0.00	.39	
S	0	11	0	0	0	0	11	2.35
	0.00	7.64	0.00	0.00	0.00	0.00	7.64	
	0.00	.27	0.00	0.00	0.00	0.00	.27	
SSW	0	12	2	0	0	0	14	2.34
	0.00	8.33	1.39	0.00	0.00	0.00	9.72	
	0.00	.29	.05	0.00	0.00	0.00	.34	
SW	4	7	1	0	0	0	12	1.97
	2.78	4.86	.69	0.00	0.00	0.00	8.33	
	.10	.17	.02	0.00	0.00	0.00	.29	
WSW	5	8	0	0	0	0	13	1.68
	3.47	5.56	0.00	0.00	0.00	0.00	9.03	
	.12	.20	0.00	0.00	0.00	0.00	.32	
W	5	1	0	0	0	0	6	1.19
	3.47	.69	0.00	0.00	0.00	0.00	4.17	
	.12	.02	0.00	0.00	0.00	0.00	.15	
WNW	3	4	0	0	0	0	7	1.89
	2.08	2.78	0.00	0.00	0.00	0.00	4.86	
	.07	.10	0.00	0.00	0.00	0.00	.17	
NW	2	4	1	0	0	0	7	2.02
	1.39	2.78	.69	0.00	0.00	0.00	4.86	
	.05	.10	.02	0.00	0.00	0.00	.17	
NNW	0	3	1	0	0	0	4	2.58
	0.00	2.08	.69	0.00	0.00	0.00	2.78	
	0.00	.07	.02	0.00	0.00	0.00	.10	
N	3	3	0	0	0	0	6	1.39
	2.08	2.08	0.00	0.00	0.00	0.00	4.17	
	.07	.07	0.00	0.00	0.00	0.00	.15	
CALM	1						1	CALM
	.69						.69	
	.02						.02	
TOTAL	50	87	7	0	0	0	144	1.85
	34.72	60.42	4.86	0.00	0.00	0.00	100.00	
	1.22	2.13	.17	0.00	0.00	0.00	3.53	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.32

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MARCH 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.44.03.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	19 .47	79 1.93	131 3.21	68 1.66	11 .27	0 0.00	308 7.54	3.98
NE	20 .49	65 1.59	113 2.77	40 .98	4 .10	0 0.00	242 5.92	3.69
ENE	25 .61	52 1.27	72 1.76	8 .20	0 0.00	0 0.00	157 3.84	3.09
E	23 .56	72 1.76	80 1.96	10 .24	3 .07	1 .02	189 4.63	3.11
ESE	17 .42	77 1.88	61 1.49	21 .51	7 .17	1 .02	184 4.50	3.38
SE	31 .76	107 2.62	140 3.43	79 1.93	19 .47	2 .05	378 9.25	3.93
SSE	22 .54	110 2.69	106 2.59	51 1.25	4 .10	1 .02	294 7.20	3.50
S	16 .39	101 2.47	72 1.76	45 1.10	22 .54	3 .07	259 6.34	3.99
SSW	6 .15	58 1.42	70 1.71	60 1.47	21 .51	11 .27	226 5.53	4.72
SW	16 .39	24 .59	48 1.18	35 .86	18 .44	5 .12	146 3.57	4.74
WSW	16 .39	28 .69	22 .54	8 .20	3 .07	3 .07	80 1.96	3.39
W	10 .24	31 .76	25 .61	18 .44	7 .17	0 0.00	91 2.23	3.85
WNW	15 .37	25 .61	43 1.05	27 .66	6 .15	9 .22	125 3.06	4.52
NW	9 .22	45 1.10	103 2.52	65 1.59	61 1.49	17 .42	300 7.34	5.50
NNW	19 .47	91 2.23	166 4.06	137 3.35	74 1.81	11 .27	498 12.19	5.04
N	25 .61	103 2.52	193 4.72	176 4.31	54 1.32	5 .12	556 13.61	4.72
CALM	52 1.27						52 1.27	CALM
TOTAL	341 8.35	1068 26.14	1445 35.37	848 20.76	314 7.69	69 1.69	4085 100.00	4.18

NUMBER OF VALID OBSERVATIONS 4085 91.51 PCT.
NUMBER OF INVALID OBSERVATIONS 379 8.49 PCT.
TOTAL NUMBER OF OBSERVATIONS 4464 100.00 PCT.

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES

TABLE 2.33

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: APRIL 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.46.53.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	16	15	25	13	2	71	5.31
	0.00	2.00	1.88	3.13	1.63	.25	8.89	
	0.00	.39	.36	.61	.32	.05	1.72	
NE	0	8	8	5	0	0	21	3.76
	0.00	1.00	1.00	.63	0.00	0.00	2.63	
	0.00	.19	.19	.12	0.00	0.00	.51	
ENE	0	4	6	0	0	0	10	3.44
	0.00	.50	.75	0.00	0.00	0.00	1.25	
	0.00	.10	.15	0.00	0.00	0.00	.24	
E	0	3	3	8	1	0	15	5.14
	0.00	.38	.38	1.00	.13	0.00	1.88	
	0.00	.07	.07	.19	.02	0.00	.36	
ESE	1	4	1	5	1	0	12	4.81
	.13	.50	.13	.63	.13	0.00	1.50	
	.02	.10	.02	.12	.02	0.00	.29	
SE	0	8	7	8	1	0	24	4.26
	0.00	1.00	.88	1.00	.13	0.00	3.00	
	0.00	.19	.17	.19	.02	0.00	.58	
SSE	2	3	18	23	2	0	48	4.98
	.25	.38	2.25	2.88	.25	0.00	6.01	
	.05	.07	.44	.56	.05	0.00	1.17	
S	0	3	5	21	10	7	46	7.21
	0.00	.38	.63	2.63	1.25	.88	5.76	
	0.00	.07	.12	.51	.24	.17	1.12	
SSW	0	2	9	12	14	15	52	8.15
	0.00	.25	1.13	1.50	1.75	1.88	6.51	
	0.00	.05	.22	.29	.34	.36	1.26	
SW	1	3	4	33	14	6	61	6.82
	.13	.38	.50	4.13	1.75	.75	7.63	
	.02	.07	.10	.80	.34	.15	1.48	
WSW	0	3	7	19	7	2	38	6.40
	0.00	.38	.88	2.38	.88	.25	4.76	
	0.00	.07	.17	.46	.17	.05	.92	
W	1	3	13	8	5	1	31	5.37
	.13	.38	1.63	1.00	.63	.13	3.88	
	.02	.07	.32	.19	.12	.02	.75	
WNW	0	1	15	10	11	4	41	6.33
	0.00	.13	1.88	1.25	1.38	.50	5.13	
	0.00	.02	.36	.24	.27	.10	1.00	
NW	0	2	20	40	22	18	102	7.31
	0.00	.25	2.50	5.01	2.75	2.25	12.77	
	0.00	.05	.49	.97	.53	.44	2.48	
NNW	0	1	16	51	33	11	112	7.22
	0.00	.13	2.00	6.38	4.13	1.38	14.02	
	0.00	.02	.39	1.24	.80	.27	2.72	
N	0	9	27	49	27	2	114	6.11
	0.00	1.13	3.38	6.13	3.38	.25	14.27	
	0.00	.22	.66	1.19	.66	.05	2.77	
CALM	1						1	CALM
	.13						.13	
	.02						.02	
TOTAL	6	73	174	317	161	68	799	6.33
	.75	9.14	21.78	39.67	20.15	8.51	100.00	
	.15	1.77	4.23	7.70	3.91	1.65	19.40	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.34

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: APRIL 1970 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.46.53.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	0	1	7	6	0	14	7.08
	0.00	0.00	.54	3.78	3.24	0.00	7.57	
	0.00	0.00	.02	.17	.15	0.00	.34	
NE	0	1	2	0	0	0	3	5.58
	0.00	.54	1.08	0.00	0.00	0.00	1.62	
	0.00	.02	.05	0.00	0.00	0.00	.07	
ENE	0	1	0	0	0	0	1	2.85
	0.00	.54	0.00	0.00	0.00	0.00	.54	
	0.00	.02	0.00	0.00	0.00	0.00	.02	
E	0	1	3	1	0	0	5	4.08
	0.00	.54	1.62	.54	0.00	0.00	2.70	
	0.00	.02	.07	.02	0.00	0.00	.12	
ESE	0	1	5	4	0	0	10	4.82
	0.00	.54	2.70	2.16	0.00	0.00	5.41	
	0.00	.02	.12	.10	0.00	0.00	.24	
SE	0	3	4	4	3	0	14	5.23
	0.00	1.62	2.16	2.16	1.62	0.00	7.57	
	0.00	.07	.10	.10	.07	0.00	.34	
SSE	1	1	6	3	0	0	11	4.29
	.54	.54	3.24	1.62	0.00	0.00	5.95	
	.02	.02	.15	.07	0.00	0.00	.27	
S	1	1	3	3	5	2	15	6.52
	.54	.54	1.62	1.62	2.70	1.08	8.11	
	.02	.02	.07	.07	.12	.05	.36	
SSW	0	0	2	6	5	3	16	7.92
	0.00	0.00	1.08	3.24	2.70	1.62	8.65	
	0.00	0.00	.05	.15	.12	.07	.39	
SW	0	0	2	3	5	1	11	7.21
	0.00	0.00	1.08	1.62	2.70	.54	5.95	
	0.00	0.00	.05	.07	.12	.02	.27	
WSW	0	0	1	2	2	0	5	7.35
	0.00	0.00	.54	1.08	1.08	0.00	2.70	
	0.00	0.00	.02	.05	.05	0.00	.12	
W	0	1	2	2	0	0	5	4.29
	0.00	.54	1.08	1.08	0.00	0.00	2.70	
	0.00	.02	.05	.05	0.00	0.00	.12	
WNW	0	0	2	5	1	0	8	5.86
	0.00	0.00	1.08	2.70	.54	0.00	4.3	
	0.00	0.00	.05	.12	.02	0.00	.1	
NW	0	0	3	3	12	1	19	7.59
	0.00	0.00	1.62	1.62	6.49	.54	10.27	
	0.00	0.00	.07	.07	.29	.02	.46	
NNW	0	1	2	7	5	3	18	7.33
	0.00	.54	1.08	3.78	2.70	1.62	9.73	
	0.00	.02	.05	.17	.12	.07	.44	
N	0	2	7	11	9	0	29	6.30
	0.00	1.08	3.78	5.95	4.86	0.00	15.68	
	0.00	.05	.17	.27	.22	0.00	.70	
CALM	1						1	CALM
	.54						.54	
	.02						.02	
TOTAL	3	13	45	61	53	10	185	6.32
	1.62	7.03	24.32	32.97	28.65	5.41	100.00	
	.07	.32	1.09	1.48	1.29	.24	4.49	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.35

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: APRIL 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.46.53.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	2	8	8	10	0	28	6.16
	0.00	.84	3.38	3.38	4.22	0.00	11.81	
	0.00	.05	.19	.19	.24	0.00	.68	
NE	0	0	1	8	0	0	9	5.77
	0.00	0.00	.42	3.38	0.00	0.00	3.80	
	0.00	0.00	.02	.19	0.00	0.00	.22	
ENE	0	1	4	0	0	0	5	3.95
	0.00	.42	1.69	0.00	0.00	0.00	2.11	
	0.00	.02	.10	0.00	0.00	0.00	.12	
E	0	0	2	5	0	0	7	5.40
	0.00	0.00	.84	2.11	0.00	0.00	2.95	
	0.00	0.00	.05	.12	0.00	0.00	.17	
ESE	0	0	5	5	1	0	11	5.53
	0.00	0.00	2.11	2.11	.42	0.00	4.64	
	0.00	0.00	.12	.12	.02	0.00	.27	
SE	0	0	8	8	11	1	28	6.68
	0.00	0.00	3.38	3.38	4.64	.42	11.81	
	0.00	0.00	.19	.19	.27	.02	.68	
SSE	2	0	3	9	1	0	15	5.32
	.84	0.00	1.27	3.80	.42	0.00	6.33	
	.05	0.00	.07	.22	.02	0.00	.36	
S	1	1	6	4	9	1	22	6.42
	.42	.42	2.53	1.69	3.80	.42	9.28	
	.02	.02	.15	.10	.22	.02	.53	
SSW	0	2	2	6	3	4	17	6.95
	0.00	.84	.84	2.53	1.27	1.69	7.17	
	0.00	.05	.05	.15	.07	.10	.41	
SW	0	0	0	3	5	1	9	8.00
	0.00	0.00	0.00	1.27	2.11	.42	3.80	
	0.00	0.00	0.00	.07	.12	.02	.22	
WSW	0	1	3	1	0	0	5	3.52
	0.00	.42	1.27	.42	0.00	0.00	2.11	
	0.00	.02	.07	.02	0.00	0.00	.12	
W	1	2	3	6	1	0	13	4.87
	.42	.84	1.27	2.53	.42	0.00	5.49	
	.02	.05	.07	.15	.02	0.00	.32	
WNW	0	0	5	0	0	1	6	5.52
	0.00	0.00	2.11	0.00	0.00	.42	2.53	
	0.00	0.00	.12	0.00	0.00	.02	.15	
NW	0	0	1	6	1	2	10	7.46
	0.00	0.00	.42	2.53	.42	.84	4.22	
	0.00	0.00	.02	.15	.02	.05	.24	
NNW	0	1	3	4	5	3	16	7.52
	0.00	.42	1.27	1.69	2.11	1.27	6.75	
	0.00	.02	.07	.10	.12	.07	.39	
N	0	1	13	15	3	3	35	6.04
	0.00	.42	5.49	6.33	1.27	1.27	14.77	
	0.00	.02	.32	.36	.07	.07	.85	
CALM	1						1	CALM
	.42						.42	
	.02						.02	
TOTAL	5	11	67	88	50	16	237	6.17
	2.11	4.64	28.27	37.13	21.10	6.75	100.00	
	.12	.27	1.63	2.14	1.21	.39	5.76	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.36

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: APRIL 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.46.53.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	12	38	68	3	0	121	4.99
	0.00	.83	2.62	4.70	.21	0.00	8.36	
	0.00	.29	.92	1.65	.07	0.00	2.94	
NE	0	10	29	3	0	0	42	3.53
	0.00	.69	2.00	.21	0.00	0.00	2.90	
	0.00	.24	.70	.07	0.00	0.00	1.04	
ENE	3	9	24	9	0	0	45	3.67
	.21	.62	1.66	.62	0.00	0.00	3.11	
	.07	.22	.58	.22	0.00	0.00	1.09	
E	0	12	23	7	0	0	42	3.78
	0.00	.83	1.59	.48	0.00	0.00	2.90	
	0.00	.29	.56	.17	0.00	0.00	1.02	
ESE	2	10	39	37	2	0	90	4.74
	.14	.69	2.69	2.56	.14	0.00	6.22	
	.05	.24	.95	.90	.05	0.00	2.19	
SE	2	19	53	88	41	3	206	5.86
	.14	1.31	3.66	6.08	2.83	.21	14.23	
	.05	.46	1.29	2.14	1.00	.07	5.00	
SSE	0	13	40	67	34	4	158	5.91
	0.00	.90	2.76	4.63	2.35	.28	10.91	
	0.00	.32	.97	1.63	.83	.10	3.84	
S	3	15	28	49	45	11	131	6.15
	.21	1.04	1.93	3.38	1.73	.76	9.05	
	.07	.36	.68	1.19	.61	.27	3.18	
SSW	1	8	15	39	18	6	87	6.31
	.07	.55	1.04	2.69	1.24	.41	6.01	
	.02	.19	.36	.95	.44	.15	2.11	
SW	1	9	14	27	5	0	56	5.16
	.07	.62	.97	1.86	.35	0.00	3.87	
	.02	.22	.34	.66	.12	0.00	1.36	
WSW	1	9	14	2	3	1	30	4.34
	.07	.62	.97	.14	.21	.07	2.07	
	.02	.22	.34	.05	.07	.02	.73	
W	3	6	10	7	1	0	27	3.81
	.21	.41	.69	.48	.07	0.00	1.86	
	.07	.15	.24	.17	.02	0.00	.66	
WNW	1	6	17	25	2	0	51	4.96
	.07	.41	1.17	1.73	.14	0.00	3.52	
	.02	.15	.41	.61	.05	0.00	1.24	
NW	1	3	26	46	19	1	96	5.98
	.07	.21	1.80	3.18	1.31	.07	6.63	
	.02	.07	.63	1.12	.46	.02	2.33	
NNW	7	10	38	45	16	2	118	5.21
	.48	.69	2.62	3.11	1.10	.14	8.15	
	.17	.24	.92	1.09	.39	.05	2.87	
N	5	17	56	53	9	1	141	4.77
	.35	1.17	3.87	3.66	.62	.07	9.74	
	.12	.41	1.36	1.29	.22	.02	3.42	
CALM	7						7	CALM
	.48						.48	
	.17						.17	
TOTAL	37	168	464	572	178	29	1448	5.27
	2.56	11.60	32.04	39.50	12.29	2.00	100.00	
	.90	4.08	11.27	13.89	4.32	.70	35.16	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.37

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: APRIL 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.46.53.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
AMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	22	24	0	0	0	49	2.92
	.29	2.13	2.32	0.00	0.00	0.00	4.74	
	.07	.53	.58	0.00	0.00	0.00	1.19	
NE	4	18	4	0	0	0	26	2.24
	.39	1.74	.39	0.00	0.00	0.00	2.51	
	.10	.44	.10	0.00	0.00	0.00	.63	
ENE	5	12	3	0	0	0	20	2.20
	.48	1.16	.29	0.00	0.00	0.00	1.93	
	.12	.29	.07	0.00	0.00	0.00	.49	
E	4	24	10	1	0	0	39	2.46
	.39	2.32	.97	.10	0.00	0.00	3.77	
	.10	.58	.24	.02	0.00	0.00	.95	
ESE	6	18	46	12	2	0	84	3.74
	.58	1.74	4.45	1.16	.19	0.00	8.12	
	.15	.44	1.12	.29	.05	0.00	2.04	
SE	4	18	70	26	4	0	122	4.07
	.39	1.74	6.77	2.51	.39	0.00	11.80	
	.10	.44	1.70	.63	.10	0.00	2.96	
SSE	6	29	72	19	3	0	129	3.77
	.58	2.80	6.96	1.84	.29	0.00	12.48	
	.15	.70	1.75	.46	.07	0.00	3.13	
S	9	27	53	21	11	1	122	4.21
	.87	2.61	5.13	2.03	1.06	.10	11.80	
	.22	.66	1.29	.51	.27	.02	2.96	
SSW	4	18	61	29	0	0	112	4.15
	.39	1.74	5.90	2.80	0.00	0.00	10.83	
	.10	.44	1.48	.70	0.00	0.00	2.72	
SW	2	9	22	8	0	0	41	3.84
	.19	.87	2.13	.77	0.00	0.00	3.97	
	.05	.22	.53	.19	0.00	0.00	1.00	
WSW	2	9	9	1	0	0	21	2.96
	.19	.87	.87	.10	0.00	0.00	2.03	
	.05	.22	.22	.02	0.00	0.00	.51	
W	4	13	16	6	0	0	39	3.41
	.39	1.26	1.55	.58	0.00	0.00	3.77	
	.10	.32	.39	.15	0.00	0.00	.95	
WNW	3	9	25	1	0	0	37	3.28
	.19	.87	2.42	.10	0.00	0.00	3.58	
	.05	.22	.61	.02	0.00	0.00	.90	
NW	5	13	25	1	4	0	48	3.67
	.48	1.26	2.42	.10	.39	0.00	4.64	
	.12	.32	.61	.02	.10	0.00	1.17	
NNW	1	24	29	4	0	0	58	3.32
	.10	2.32	2.80	.39	0.00	0.00	5.61	
	.02	.58	.70	.10	0.00	0.00	1.41	
N	6	28	32	2	0	0	68	3.09
	.58	2.71	3.09	.19	0.00	0.00	6.58	
	.15	.68	.78	.05	0.00	0.00	1.65	
CALM	19						19	CALM
	1.84						1.84	
	.46						.46	
TOTAL	86	291	501	131	24	1	1034	3.55
	8.32	28.14	48.45	12.67	2.32	.10	100.00	
	2.09	7.07	12.17	3.18	.58	.02	25.11	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.38

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: APRIL 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.46.53.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	5	1	2	0	0	0	8	2.27
	1.78	.36	.71	0.00	0.00	0.00	2.85	
	.12	.02	.05	0.00	0.00	0.00	.19	
NE	0	3	0	0	0	0	3	2.27
	0.00	1.07	0.00	0.00	0.00	0.00	1.07	
	0.00	.07	0.00	0.00	0.00	0.00	.07	
ENE	0	2	0	0	0	0	2	1.70
	0.00	.71	0.00	0.00	0.00	0.00	.71	
	0.00	.05	0.00	0.00	0.00	0.00	.05	
E	1	5	0	0	0	0	6	1.60
	.36	1.78	0.00	0.00	0.00	0.00	2.14	
	.02	.12	0.00	0.00	0.00	0.00	.15	
ESE	6	2	1	0	0	0	9	1.58
	2.14	.71	.36	0.00	0.00	0.00	3.20	
	.15	.05	.02	0.00	0.00	0.00	.22	
SE	0	11	6	0	0	0	17	2.76
	0.00	3.91	2.14	0.00	0.00	0.00	6.05	
	0.00	.27	.15	0.00	0.00	0.00	.41	
SSE	2	14	4	1	2	0	23	3.33
	.71	4.98	1.42	.36	.71	0.00	8.19	
	.05	.34	.10	.02	.05	0.00	.56	
S	1	33	9	0	1	0	44	2.59
	.36	11.74	3.20	0.00	.36	0.00	15.66	
	.02	.80	.22	0.00	.02	0.00	1.07	
SSW	0	27	9	0	0	0	36	2.73
	0.00	9.61	3.20	0.00	0.00	0.00	12.81	
	0.00	.66	.22	0.00	0.00	0.00	.87	
SW	3	12	7	0	0	0	22	2.56
	1.07	4.27	2.49	0.00	0.00	0.00	7.83	
	.07	.29	.17	0.00	0.00	0.00	.53	
WSW	0	14	4	0	0	0	18	2.47
	0.00	4.98	1.42	0.00	0.00	0.00	6.41	
	0.00	.34	.10	0.00	0.00	0.00	.44	
W	2	11	3	0	0	0	16	2.31
	.71	3.91	1.07	0.00	0.00	0.00	5.69	
	.05	.27	.07	0.00	0.00	0.00	.39	
WNW	3	8	3	0	0	0	14	2.52
	1.07	2.85	1.07	0.00	0.00	0.00	4.98	
	.07	.19	.07	0.00	0.00	0.00	.34	
NW	5	8	1	0	0	0	14	2.08
	1.78	2.85	.36	0.00	0.00	0.00	4.98	
	.12	.19	.02	0.00	0.00	0.00	.34	
NNW	5	12	4	0	0	0	21	2.17
	1.78	4.27	1.42	0.00	0.00	0.00	7.47	
	.12	.29	.10	0.00	0.00	0.00	.51	
N	5	8	4	1	0	0	18	2.58
	1.78	2.85	1.42	.36	0.00	0.00	6.41	
	.12	.19	.10	.02	0.00	0.00	.44	
CALM	10						10	CALM
	3.56						3.56	
	.24						.24	
TOTAL	48	171	57	2	3	0	281	2.43
	17.08	60.85	20.28	.71	1.07	0.00	100.00	
	1.17	4.15	1.38	.05	.07	0.00	6.82	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.39

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: APRIL 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.46.53.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	2	1	1	0	0	0	4	2.12
	1.49	.75	.75	0.00	0.00	0.00	2.99	
	.05	.02	.02	0.00	0.00	0.00	.10	
NE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ENE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
E	1	0	0	0	0	0	1	1.39
	.75	0.00	0.00	0.00	0.00	0.00	.75	
	.02	0.00	0.00	0.00	0.00	0.00	.02	
ESE	3	0	0	0	0	0	3	1.33
	2.24	0.00	0.00	0.00	0.00	0.00	2.24	
	.07	0.00	0.00	0.00	0.00	0.00	.07	
SE	1	5	0	0	0	0	6	1.87
	.75	3.73	0.00	0.00	0.00	0.00	4.48	
	.02	.12	0.00	0.00	0.00	0.00	.15	
SSE	1	9	2	0	1	0	13	3.09
	.75	6.72	1.49	0.00	.75	0.00	9.70	
	.02	.22	.05	0.00	.02	0.00	.32	
S	3	15	1	0	1	0	20	2.40
	2.24	11.19	.75	0.00	.75	0.00	14.93	
	.07	.36	.02	0.00	.02	0.00	.49	
SSW	1	9	7	0	0	0	17	2.67
	.75	6.72	5.22	0.00	0.00	0.00	12.69	
	.02	.22	.17	0.00	0.00	0.00	.41	
SW	1	7	4	0	0	0	12	2.71
	.75	5.22	2.99	0.00	0.00	0.00	8.96	
	.02	.17	.10	0.00	0.00	0.00	.29	
WSW	7	2	0	0	0	0	9	1.29
	5.22	1.49	0.00	0.00	0.00	0.00	6.72	
	.17	.05	0.00	0.00	0.00	0.00	.22	
W	5	4	0	0	0	0	9	1.49
	3.73	2.99	0.00	0.00	0.00	0.00	6.72	
	.12	.10	0.00	0.00	0.00	0.00	.22	
WNW	4	4	2	0	0	0	10	2.07
	2.99	2.99	1.49	0.00	0.00	0.00	7.46	
	.10	.10	.05	0.00	0.00	0.00	.24	
NW	2	2	1	0	0	0	5	1.98
	1.49	1.49	.75	0.00	0.00	0.00	3.73	
	.05	.05	.02	0.00	0.00	0.00	.12	
NNW	3	4	2	0	0	0	9	1.96
	2.24	2.99	1.49	0.00	0.00	0.00	6.72	
	.07	.10	.05	0.00	0.00	0.00	.22	
N	6	5	0	0	0	0	11	1.60
	4.48	3.73	0.00	0.00	0.00	0.00	8.21	
	.15	.12	0.00	0.00	0.00	0.00	.27	
CALM	5						5	CALM
	3.73						3.73	
	.12						.12	
TOTAL	45	67	20	0	2	0	134	2.11
	33.58	50.00	14.93	0.00	1.49	0.00	100.00	
	1.09	1.63	.49	0.00	.05	0.00	3.25	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.40

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: APRIL 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.57 METERS
TABLE GENERATED: 05/14/77. 11.46.53.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	10 .24	54 1.31	89 2.16	108 2.62	32 .78	2 .05	295 7.16	4.82
NE	4 .10	40 .97	44 1.07	16 .39	0 0.00	0 0.00	104 2.53	3.41
ENE	8 .19	29 .70	37 .90	9 .22	0 0.00	0 0.00	83 2.02	3.25
E	6 .15	45 .09	41 1.00	22 .53	1 .02	0 0.00	115 2.79	3.49
ESE	18 .44	35 .85	97 2.36	63 1.53	6 .15	0 0.00	219 5.32	4.23
SE	7 .17	64 1.55	148 3.59	134 3.25	60 1.46	4 .10	417 10.13	5.10
SSE	14 .34	69 1.68	145 3.52	122 2.96	43 1.04	4 .10	397 9.64	4.79
S	18 .44	95 2.31	105 2.55	98 2.38	62 1.51	22 .53	400 9.71	5.13
SSW	6 .15	66 1.60	105 2.55	92 2.23	40 .97	28 .68	337 8.18	5.42
SW	8 .19	40 .97	53 1.29	74 1.80	29 .70	8 .19	212 5.15	5.20
WSW	10 .24	38 .92	38 .92	25 .61	12 .29	3 .07	126 3.06	4.33
W	16 .39	40 .97	47 1.14	29 .70	7 .17	1 .02	140 3.40	3.84
WNW	10 .24	28 .68	69 1.68	41 1.00	14 .34	5 .12	167 4.06	4.61
NW	13 .32	28 .68	77 1.87	96 2.33	58 1.41	22 .53	294 7.14	5.97
NNW	16 .39	53 1.29	94 2.28	111 2.70	59 1.43	19 .46	352 8.55	5.49
N	22 .53	70 1.70	139 3.38	131 3.18	48 1.17	6 .15	416 10.10	4.90
CALM	44 1.07						44 1.07	CALM
TOTAL	230 5.59	794 19.28	1328 32.25	1171 28.44	471 11.44	124 3.01	4118 100.00	4.85

NUMBER OF VALID OBSERVATIONS	4118	95.32 PCT.
NUMBER OF INVALID OBSERVATIONS	202	4.68 PCT.
TOTAL NUMBER OF OBSERVATIONS	4320	100.00 PCT.

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES

TABLE 2.41

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MAY 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.49.29.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	2	10	5	1	0	18	4.52
	0.00	.23	1.15	.58	.12	0.00	2.07	
	0.00	.05	.24	.12	.02	0.00	.43	
NE	0	3	5	4	0	0	12	4.24
	0.00	.35	.58	.46	0.00	0.00	1.38	
	0.00	.07	.12	.09	0.00	0.00	.28	
ENE	1	5	3	1	0	0	10	2.92
	.12	.58	.35	.12	0.00	0.00	1.15	
	.02	.12	.07	.02	0.00	0.00	.24	
E	0	8	3	2	7	0	20	5.12
	0.00	.92	.35	.23	.81	0.00	2.30	
	0.00	.19	.07	.05	.17	0.00	.47	
ESE	2	5	3	2	0	0	12	2.94
	.23	.58	.35	.23	0.00	0.00	1.38	
	.05	.12	.07	.05	0.00	0.00	.28	
SE	2	9	17	4	0	0	32	3.45
	.23	1.04	1.96	.46	0.00	0.00	3.68	
	.05	.21	.40	.09	0.00	0.00	.76	
SSE	5	19	36	24	10	0	94	4.44
	.58	2.19	4.14	2.76	1.15	0.00	10.82	
	.12	.45	.85	.57	.24	0.00	2.22	
S	3	9	36	20	13	1	82	5.01
	.35	1.04	4.14	2.30	1.50	.12	9.44	
	.07	.21	.85	.47	.31	.02	1.94	
SSW	4	3	18	13	9	3	50	5.59
	.46	.35	2.07	1.50	1.04	.35	5.75	
	.09	.07	.43	.31	.21	.07	1.18	
SW	1	4	7	18	13	5	48	6.81
	.12	.46	.81	2.07	1.50	.58	5.52	
	.02	.09	.17	.43	.31	.12	1.13	
WSW	2	8	14	8	4	0	36	4.40
	.23	.92	1.61	.92	.46	0.00	4.14	
	.05	.19	.33	.19	.09	0.00	.85	
W	2	8	19	14	7	0	50	5.01
	.23	.92	2.17	1.61	.81	0.00	5.75	
	.05	.19	.45	.33	.17	0.00	1.18	
WNW	0	0	23	18	5	0	46	5.19
	0.00	0.00	2.65	2.07	.58	0.00	5.29	
	0.00	0.00	.54	.43	.12	0.00	1.09	
NW	5	7	34	39	15	3	100	5.55
	.23	.81	3.91	4.49	1.73	.35	11.51	
	.05	.17	.80	.92	.35	.07	2.36	
NNW	1	6	38	51	22	2	120	5.80
	.12	.69	4.37	5.87	2.53	.23	13.81	
	.02	.14	.90	1.20	.52	.05	2.83	
N	0	10	35	65	19	4	133	5.75
	0.00	1.15	4.03	7.48	2.19	.46	15.30	
	0.00	.24	.83	1.54	.45	.09	3.14	
CALM	6						6	CALM
	.69						.69	
	.14						.14	
TOTAL	31	106	301	288	125	18	869	5.19
	3.57	12.20	34.64	33.14	14.38	2.07	100.00	
	.73	2.50	7.11	6.80	2.95	.43	20.53	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.42

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MAY 1970 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.49.29.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7435-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	3	2	4	0	0	9	4.29
	0.00	1.75	1.17	2.34	0.00	0.00	5.26	
	0.00	.07	.05	.09	0.00	0.00	.21	
NE	0	2	2	0	0	0	4	3.11
	0.00	1.17	1.17	0.00	0.00	0.00	2.34	
	0.00	.05	.05	0.00	0.00	0.00	.09	
ENE	0	0	6	0	0	0	6	4.09
	0.00	0.00	3.51	0.00	0.00	0.00	3.51	
	0.00	0.00	.14	0.00	0.00	0.00	.14	
E	0	0	1	0	0	0	1	3.58
	0.00	0.00	.58	0.00	0.00	0.00	.58	
	0.00	0.00	.02	0.00	0.00	0.00	.02	
ESE	0	1	1	1	0	0	3	3.74
	0.00	.58	.58	.58	0.00	0.00	1.75	
	0.00	.02	.02	.02	0.00	0.00	.07	
SE	0	4	1	1	0	0	6	3.19
	0.00	2.34	.58	.58	0.00	0.00	3.51	
	0.00	.09	.02	.02	0.00	0.00	.14	
SSE	0	1	4	4	2	0	11	5.51
	0.00	.58	2.34	2.34	1.17	0.00	6.43	
	0.00	.02	.09	.09	.05	0.00	.26	
S	1	4	4	11	8	1	29	6.20
	.58	2.34	2.34	6.43	4.68	.58	16.96	
	.02	.09	.09	.26	.19	.02	.69	
SSW	0	2	1	12	6	0	21	6.69
	0.00	1.17	.58	7.02	3.51	0.00	12.28	
	0.00	.05	.02	.28	.14	0.00	.50	
SW	1	0	4	3	8	1	17	6.46
	.58	0.00	2.34	1.75	4.68	.58	9.94	
	.02	0.00	.09	.07	.19	.02	.40	
WSW	0	2	2	2	0	0	6	4.28
	0.00	1.17	1.17	1.17	0.00	0.00	3.51	
	0.00	.05	.05	.05	0.00	0.00	.14	
W	1	1	4	0	0	0	6	3.24
	.58	.58	2.34	0.00	0.00	0.00	3.51	
	.02	.02	.09	0.00	0.00	0.00	.14	
WNW	0	0	3	6	1	0	10	5.91
	0.00	0.00	1.75	3.51	.58	0.00	5.85	
	0.00	0.00	.07	.14	.02	0.00	.24	
NW	0	3	3	8	0	0	14	5.05
	0.00	1.75	1.75	4.68	0.00	0.00	8.19	
	0.00	.07	.07	.19	0.00	0.00	.33	
NNW	0	0	7	5	0	1	13	5.47
	0.00	0.00	4.09	2.92	0.00	.58	7.60	
	0.00	0.00	.17	.12	0.00	.02	.31	
N	0	1	4	8	2	0	15	5.46
	0.00	.58	2.34	4.68	1.17	0.00	8.77	
	0.00	.02	.09	.19	.05	0.00	.35	
CALM	0						0	CALM
	0.00						0.00	
	0.00						0.00	
TOTAL	3	24	49	65	27	3	171	5.47
	1.75	14.04	28.65	38.01	15.79	1.75	100.00	
	.07	.57	1.16	1.54	.64	.07	4.04	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.43

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MAY 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.49.29.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	2	5	4	0	0	11	4.55
	0.00	.91	2.28	1.83	0.00	0.00	5.02	
	0.00	.05	.12	.09	0.00	0.00	.26	
NE	0	1	3	1	0	0	5	3.92
	0.00	.46	1.37	.46	0.00	0.00	2.28	
	0.00	.02	.07	.02	0.00	0.00	.12	
ENE	1	2	7	0	0	0	10	3.32
	.46	.91	3.20	0.00	0.00	0.00	4.57	
	.02	.05	.17	0.00	0.00	0.00	.24	
E	0	1	5	0	0	0	6	3.68
	0.00	.46	2.28	0.00	0.00	0.00	2.74	
	0.00	.02	.12	0.00	0.00	0.00	.14	
ESE	0	1	0	1	0	0	2	3.91
	0.00	.46	0.00	.46	0.00	0.00	.91	
	0.00	.02	0.00	.02	0.00	0.00	.05	
SE	0	0	5	9	1	0	16	5.61
	0.00	0.00	2.28	4.17	.46	0.00	7.31	
	0.00	0.00	.12	.24	.02	0.00	.38	
SSE	0	1	4	7	1	0	13	5.35
	0.00	.46	1.83	3.20	.46	0.00	5.94	
	0.00	.02	.09	.17	.02	0.00	.31	
S	0	0	10	18	4	0	32	5.87
	0.00	0.00	4.57	8.22	1.83	0.00	14.61	
	0.00	0.00	.24	.43	.09	0.00	.76	
SSW	0	1	4	8	9	0	22	6.76
	0.00	.46	1.83	3.65	4.11	0.00	10.05	
	0.00	.02	.09	.19	.21	0.00	.52	
SW	1	1	5	11	11	1	30	6.77
	.46	.46	2.28	5.02	5.02	.46	13.70	
	.02	.02	.12	.26	.26	.02	.71	
WSW	0	0	0	3	0	0	3	6.24
	0.00	0.00	0.00	1.37	0.00	0.00	1.37	
	0.00	0.00	0.00	.07	0.00	0.00	.07	
W	0	0	2	1	1	0	4	5.81
	0.00	0.00	.91	.46	.46	0.00	1.83	
	0.00	0.00	.05	.02	.02	0.00	.09	
WNW	0	2	1	4	0	0	7	4.53
	0.00	.91	.46	1.83	0.00	0.00	3.20	
	0.00	.05	.02	.09	0.00	0.00	.17	
NW	0	0	3	10	0	0	13	5.47
	0.00	0.00	1.37	4.57	0.00	0.00	5.94	
	0.00	0.00	.07	.24	0.00	0.00	.31	
NNW	1	1	10	5	1	1	19	5.13
	.46	.46	4.57	2.28	.46	.46	8.68	
	.02	.02	.24	.12	.02	.02	.45	
N	0	0	8	11	6	0	25	5.63
	0.00	0.00	3.65	5.02	2.74	0.00	11.42	
	0.00	0.00	.19	.26	.14	0.00	.59	
CALM	1						1	CALM
	.46						.46	
	.02						.02	
TOTAL	5	13	72	94	34	2	219	5.55
	1.83	5.94	32.88	42.92	15.53	.91	100.00	
	.09	.31	1.70	2.22	.80	.05	5.17	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.44

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MAY 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.49.29.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	18	44	25	0	0	90	4.11
	.21	1.29	3.14	1.79	0.00	0.00	6.43	
	.07	.43	1.04	.59	0.00	0.00	2.13	
NE	1	20	30	10	0	0	61	3.67
	.07	1.43	2.14	.71	0.00	0.00	4.36	
	.02	.47	.71	.24	0.00	0.00	1.44	
ENE	7	24	13	1	0	0	45	2.55
	.50	1.71	.93	.07	0.00	0.00	3.21	
	.17	.57	.31	.02	0.00	0.00	1.06	
E	8	29	39	3	0	0	79	3.07
	.57	2.07	2.79	.21	0.00	0.00	5.64	
	.19	.69	.92	.07	0.00	0.00	1.87	
ESE	8	18	39	19	1	0	85	3.83
	.57	1.29	2.79	1.36	.07	0.00	6.07	
	.19	.43	.92	.45	.02	0.00	2.01	
SE	3	17	71	56	4	0	151	4.59
	.21	1.21	5.07	4.00	.29	0.00	10.79	
	.07	.40	1.68	1.32	.09	0.00	3.57	
SSE	6	27	28	44	3	0	108	4.29
	.43	1.93	2.00	3.14	.21	0.00	7.71	
	.14	.64	.66	1.04	.07	0.00	2.55	
S	3	32	63	39	16	0	153	4.51
	.21	2.29	4.50	2.79	1.14	0.00	10.93	
	.07	.76	1.49	.92	.38	0.00	3.61	
SSW	6	19	27	49	21	0	122	5.20
	.43	1.36	1.93	3.50	1.50	0.00	8.71	
	.14	.45	.64	1.16	.50	0.00	2.88	
SW	2	11	23	33	10	2	81	5.32
	.14	.79	1.64	2.36	.71	.14	5.79	
	.05	.26	.54	.78	.24	.05	1.91	
WSW	4	13	20	3	0	0	40	3.23
	.29	.93	1.43	.21	0.00	0.00	2.86	
	.09	.31	.47	.07	0.00	0.00	.94	
W	1	13	19	3	5	0	41	4.01
	.07	.93	1.36	.21	.36	0.00	2.93	
	.02	.31	.45	.07	.12	0.00	.97	
WNW	2	6	20	14	5	0	47	4.75
	.14	.43	1.43	1.00	.36	0.00	3.36	
	.05	.14	.47	.33	.12	0.00	1.11	
NW	2	16	38	28	3	0	87	4.44
	.14	1.14	2.71	2.00	.21	0.00	6.21	
	.05	.38	.90	.66	.07	0.00	2.06	
NNW	1	16	34	32	1	3	87	4.60
	.07	1.14	2.43	2.29	.07	.21	6.21	
	.02	.38	.80	.76	.02	.07	2.06	
N	2	19	52	41	1	0	115	4.40
	.14	1.36	3.71	2.93	.07	0.00	8.21	
	.05	.45	1.23	.97	.02	0.00	2.72	
CALM	8						8	CALM
	.57						.57	
	.19						.19	
TOTAL	67	298	560	400	70	5	1400	4.28
	4.79	21.29	40.00	28.57	5.00	.36	100.00	
	1.58	7.04	13.23	9.45	1.65	.12	33.07	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.45

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MAY 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.49.29.

COOPER NUC FAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	5	20	2	1	1	0	29	2.51
	.50	2.01	.20	.10	.10	0.00	2.91	
	.12	.47	.05	.02	.02	0.00	.69	
NE	9	12	1	0	0	0	22	1.89
	.90	1.20	.10	0.00	0.00	0.00	2.21	
	.21	.28	.02	0.00	0.00	0.00	.52	
ENE	14	20	7	0	0	0	41	2.08
	1.41	2.01	.70	0.00	0.00	0.00	4.12	
	.33	.47	.17	0.00	0.00	0.00	.97	
E	8	19	7	0	0	0	34	2.26
	.80	1.91	.70	0.00	0.00	0.00	3.41	
	.19	.45	.17	0.00	0.00	0.00	.80	
ESE	6	19	28	0	0	0	53	2.75
	.60	1.91	2.81	0.00	0.00	0.00	5.32	
	.14	.45	.66	0.00	0.00	0.00	1.25	
SE	4	32	47	2	1	0	86	3.26
	.40	3.21	4.72	.20	.10	0.00	8.63	
	.09	.76	1.11	.05	.02	0.00	2.03	
SSE	6	50	34	11	3	0	104	3.31
	.60	5.02	3.41	1.10	.30	0.00	10.44	
	.14	1.18	.80	.26	.07	0.00	2.46	
S	10	46	57	9	2	0	124	3.17
	1.00	4.62	5.72	.90	.20	0.00	12.45	
	.24	1.09	1.35	.21	.05	0.00	2.93	
SSW	10	37	68	5	3	0	123	3.38
	1.00	3.71	6.83	.50	.30	0.00	12.35	
	.24	.87	1.61	.12	.07	0.00	2.91	
SW	8	29	40	9	0	0	86	3.32
	.80	2.91	4.02	.90	0.00	0.00	8.63	
	.19	.69	.94	.21	0.00	0.00	2.03	
WSW	2	15	12	1	0	0	30	3.02
	.20	1.51	1.20	.10	0.00	0.00	3.01	
	.05	.35	.28	.02	0.00	0.00	.71	
W	10	17	8	0	0	0	35	2.34
	1.00	1.71	.80	0.00	0.00	0.00	3.51	
	.24	.40	.19	0.00	0.00	0.00	.83	
WNW	1	17	14	2	0	0	34	3.09
	.10	1.71	1.41	.20	0.00	0.00	3.41	
	.02	.40	.33	.05	0.00	0.00	.80	
NW	3	12	21	2	0	0	38	3.13
	.30	1.20	2.11	.20	0.00	0.00	3.82	
	.07	.28	.50	.05	0.00	0.00	.90	
NNW	11	34	23	1	1	0	70	2.68
	1.10	3.41	2.31	.10	.10	0.00	7.03	
	.26	.80	.54	.02	.02	0.00	1.65	
N	10	34	26	1	1	0	72	2.74
	1.00	3.41	2.61	.10	.10	0.00	7.23	
	.24	.80	.61	.02	.02	0.00	1.70	
CALM	15						15	CALM
	1.51						1.51	
	.35						.35	
TOTAL	132	413	395	44	12	0	996	2.94
	13.25	41.47	39.66	4.42	1.20	0.00	100.00	
	3.12	9.76	9.33	1.04	.28	0.00	23.53	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.46

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MAY 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.49.29.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	4	13	0	0	0	0	17	1.83
	1.03	3.35	0.00	0.00	0.00	0.00	4.38	
	.09	.31	0.00	0.00	0.00	0.00	.40	
NE	3	4	0	0	0	0	7	1.40
	.77	1.03	0.00	0.00	0.00	0.00	1.80	
	.07	.09	0.00	0.00	0.00	0.00	.17	
ENE	4	3	0	0	0	0	7	1.37
	1.03	.77	0.00	0.00	0.00	0.00	1.80	
	.09	.07	0.00	0.00	0.00	0.00	.17	
E	4	0	0	0	0	0	4	1.24
	1.03	0.00	0.00	0.00	0.00	0.00	1.03	
	.09	0.00	0.00	0.00	0.00	0.00	.09	
ESE	8	6	0	0	0	0	14	1.41
	2.06	1.55	0.00	0.00	0.00	0.00	3.61	
	.19	.14	0.00	0.00	0.00	0.00	.33	
SE	7	22	0	0	0	0	29	1.94
	1.80	5.67	0.00	0.00	0.00	0.00	7.47	
	.17	.52	0.00	0.00	0.00	0.00	.69	
SSE	8	40	1	0	0	0	49	1.96
	2.06	10.31	.26	0.00	0.00	0.00	12.63	
	.19	.94	.02	0.00	0.00	0.00	1.16	
S	15	31	3	2	0	0	51	2.06
	3.87	7.99	.77	.52	0.00	0.00	13.14	
	.35	.73	.07	.05	0.00	0.00	1.20	
SSW	10	20	7	0	0	0	37	2.13
	2.58	5.15	1.80	0.00	0.00	0.00	9.54	
	.24	.47	.17	0.00	0.00	0.00	.87	
SW	4	13	5	0	1	0	23	2.73
	1.03	3.35	1.29	0.00	.26	0.00	5.93	
	.09	.31	.12	0.00	.02	0.00	.54	
WSW	7	9	5	0	0	0	21	2.25
	1.80	2.32	1.29	0.00	0.00	0.00	5.41	
	.17	.21	.12	0.00	0.00	0.00	.50	
W	1	8	4	0	0	0	13	2.56
	.26	2.06	1.03	0.00	0.00	0.00	3.35	
	.02	.19	.09	0.00	0.00	0.00	.31	
WNW	2	10	8	0	0	0	20	2.65
	.52	2.58	2.06	0.00	0.00	0.00	5.15	
	.05	.24	.19	0.00	0.00	0.00	.47	
NW	8	19	5	0	0	0	32	2.18
	2.06	4.90	1.29	0.00	0.00	0.00	8.25	
	.19	.45	.12	0.00	0.00	0.00	.76	
NNW	9	10	1	0	0	0	20	1.79
	2.32	2.58	.26	0.00	0.00	0.00	5.15	
	.21	.24	.02	0.00	0.00	0.00	.47	
N	10	17	2	0	0	0	29	1.80
	2.58	4.38	.52	0.00	0.00	0.00	7.47	
	.24	.40	.05	0.00	0.00	0.00	.69	
CALM	15						15	CALM
	3.87						3.87	
	.35						.35	
TOTAL	119	225	41	2	1	0	388	1.97
	30.67	57.99	10.57	.52	.26	0.00	100.00	
	2.81	5.32	.97	.05	.02	0.00	9.17	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.47

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MAY 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.49.29.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	7	3	0	0	0	0	10	1.36
	3.68	1.58	0.00	0.00	0.00	0.00	5.26	
	.17	.07	0.00	0.00	0.00	0.00	.24	
NE	0	1	0	0	0	0	1	1.58
	0.00	.53	0.00	0.00	0.00	0.00	.53	
	0.00	.02	0.00	0.00	0.00	0.00	.02	
ENE	1	7	0	0	0	0	8	1.83
	.53	3.68	0.00	0.00	0.00	0.00	4.21	
	.02	.17	0.00	0.00	0.00	0.00	.19	
E	3	0	0	0	0	0	3	1.16
	1.58	0.00	0.00	0.00	0.00	0.00	1.58	
	.07	0.00	0.00	0.00	0.00	0.00	.07	
ESE	3	0	0	0	0	0	3	1.21
	1.58	0.00	0.00	0.00	0.00	0.00	1.58	
	.07	0.00	0.00	0.00	0.00	0.00	.07	
SE	6	1	0	0	0	0	7	1.37
	3.16	.53	0.00	0.00	0.00	0.00	3.68	
	.14	.02	0.00	0.00	0.00	0.00	.17	
SSE	4	10	2	0	0	0	16	1.79
	2.11	5.26	1.05	0.00	0.00	0.00	8.42	
	.09	.24	.05	0.00	0.00	0.00	.38	
S	6	10	0	0	0	0	16	1.64
	3.16	5.26	0.00	0.00	0.00	0.00	8.42	
	.14	.24	0.00	0.00	0.00	0.00	.38	
SSW	4	5	0	0	0	0	9	1.81
	2.11	2.63	0.00	0.00	0.00	0.00	4.74	
	.09	.12	0.00	0.00	0.00	0.00	.21	
SW	5	6	1	0	0	0	12	1.65
	2.63	3.16	.53	0.00	0.00	0.00	6.32	
	.12	.14	.02	0.00	0.00	0.00	.28	
WSW	6	6	2	0	0	0	14	1.82
	3.16	3.16	1.05	0.00	0.00	0.00	7.37	
	.14	.14	.05	0.00	0.00	0.00	.33	
W	4	9	0	0	0	0	13	1.82
	2.11	4.74	0.00	0.00	0.00	0.00	6.84	
	.09	.21	0.00	0.00	0.00	0.00	.31	
WNW	5	9	1	0	0	0	15	1.95
	2.63	4.74	.53	0.00	0.00	0.00	7.89	
	.12	.21	.02	0.00	0.00	0.00	.35	
NW	5	18	2	0	0	0	25	2.02
	2.63	9.47	1.05	0.00	0.00	0.00	13.16	
	.12	.43	.05	0.00	0.00	0.00	.59	
NNW	1	7	0	0	0	0	8	1.82
	.53	3.68	0.00	0.00	0.00	0.00	4.21	
	.02	.17	0.00	0.00	0.00	0.00	.19	
N	9	9	0	0	0	0	18	1.57
	4.74	4.74	0.00	0.00	0.00	0.00	9.47	
	.21	.21	0.00	0.00	0.00	0.00	.43	
CALM	12						12	CALM
	6.32						6.32	
	.28						.28	
TOTAL	81	101	8	0	0	0	190	1.63
	42.63	53.16	4.21	0.00	0.00	0.00	100.00	
	1.91	2.39	.19	0.00	0.00	0.00	4.49	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.48

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: MAY 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.49.29.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	19 .45	61 1.44	63 1.49	39 .92	2 .05	0 0.00	184 4.35	3.58
NE	13 .31	43 1.02	41 .97	15 .35	0 0.00	0 0.00	112 2.65	3.21
ENE	6 .14	61 1.44	36 .85	2 .05	0 0.00	0 0.00	127 3.00	2.45
E	23 .54	57 1.35	55 1.30	5 .12	7 .17	0 0.00	147 3.47	3.10
ESE	27 .64	50 1.18	71 1.68	23 .54	1 .02	0 0.00	172 4.06	3.19
SE	22 .52	85 2.01	141 3.33	73 1.72	6 .14	0 0.00	327 7.73	3.85
SSE	29 .69	148 3.50	109 2.58	90 2.13	19 .45	0 0.00	395 9.33	3.75
S	38 .90	132 3.12	173 4.09	99 2.34	43 1.02	2 .05	487 11.50	4.09
SSW	34 .80	87 2.06	125 2.95	87 2.06	48 1.13	3 .07	384 9.07	4.46
SW	22 .52	64 1.51	85 2.01	74 1.75	43 1.02	9 .21	297 7.02	4.87
WSW	21 .50	53 1.25	55 1.30	17 .40	4 .09	0 0.00	150 3.54	3.30
W	19 .45	56 1.32	56 1.32	18 .43	13 .31	0 0.00	162 3.83	3.68
WNW	10 .24	44 1.04	70 1.65	44 1.04	11 .26	0 0.00	179 4.23	4.13
NW	20 .47	75 1.77	106 2.50	87 2.06	18 .43	3 .07	309 7.30	4.28
NNW	24 .57	74 1.75	113 2.67	94 2.22	25 .59	7 .17	337 7.96	4.46
N	31 .73	90 2.13	127 3.00	126 2.98	29 .69	4 .09	407 9.61	4.35
CALM	57 1.35						57 1.35	CALM
TOTAL	437 10.32	1180 27.88	1426 33.69	893 21.10	369 8.35	28 .66	4233 100.00	3.93

NUMBER OF VALID OBSERVATIONS	4233	94.83 PCT.
NUMBER OF INVALID OBSERVATIONS	231	5.17 PCT.
TOTAL NUMBER OF OBSERVATIONS	4464	100.00 PCT.

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES

TABLE 2.49

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JUNE 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.52.06.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	11	11	3	0	0	28	3.28
	.37	1.37	1.37	.37	0.00	0.00	3.49	
	.09	.32	.32	.09	0.00	0.00	.81	
NE	3	8	4	0	0	0	15	2.31
	.37	1.00	.50	0.00	0.00	0.00	1.87	
	.09	.23	.12	0.00	0.00	0.00	.44	
ENE	5	15	7	1	0	0	28	2.53
	.62	1.87	.87	.12	0.00	0.00	3.49	
	.15	.44	.20	.03	0.00	0.00	.81	
E	1	13	9	1	0	0	24	2.90
	.12	1.62	1.12	.12	0.00	0.00	2.99	
	.03	.38	.26	.03	0.00	0.00	.70	
ESE	1	5	14	10	0	0	30	4.31
	.12	.62	1.74	1.25	0.00	0.00	3.74	
	.03	.15	.41	.29	0.00	0.00	.87	
SE	4	9	21	3	0	0	37	3.39
	.50	1.12	2.62	.37	0.00	0.00	4.61	
	.12	.26	.61	.09	0.00	0.00	1.07	
SSE	2	4	30	25	0	0	61	4.70
	.25	.50	3.74	3.11	0.00	0.00	7.60	
	.06	.12	.87	.73	0.00	0.00	1.77	
S	1	5	24	48	12	0	90	5.70
	.12	.62	2.99	5.98	1.49	0.00	11.21	
	.03	.15	.70	1.39	.35	0.00	2.61	
SSW	1	5	12	29	20	0	67	6.30
	.12	.62	1.49	3.61	2.49	0.00	8.34	
	.03	.15	.35	.84	.58	0.00	1.94	
SW	0	10	18	25	14	0	67	5.50
	0.00	1.25	2.24	3.11	1.74	0.00	8.34	
	0.00	.29	.52	.73	.41	0.00	1.94	
WSW	3	4	18	3	0	0	28	3.57
	.37	.50	2.24	.37	0.00	0.00	3.49	
	.09	.12	.52	.09	0.00	0.00	.81	
W	1	13	22	5	0	0	41	3.66
	.12	1.62	2.74	.62	0.00	0.00	5.11	
	.03	.38	.64	.15	0.00	0.00	1.19	
WNW	0	3	13	17	5	0	38	5.33
	0.00	.37	1.62	2.12	.62	0.00	4.73	
	0.00	.09	.38	.49	.15	0.00	1.10	
NW	0	4	23	40	9	1	77	5.60
	0.00	.50	2.86	4.98	1.12	.12	9.59	
	0.00	.12	.67	1.16	.26	.03	2.23	
NNW	0	7	19	46	17	1	90	5.96
	0.00	.87	2.37	5.73	2.12	.12	11.21	
	0.00	.20	.55	1.33	.49	.03	2.61	
N	4	14	26	16	10	0	70	4.57
	.50	1.74	3.24	1.99	1.25	0.00	8.72	
	.12	.41	.75	.46	.29	0.00	2.03	
CALM	12						12	CALM
	1.49						1.49	
	.35						.35	
TOTAL	41	130	271	272	87	2	803	4.79
	5.11	16.19	33.75	33.87	10.83	.25	100.00	
	1.19	3.77	7.86	7.89	2.52	.06	23.30	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.50

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JUNE 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.57.05.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	0	1	0	0	0	1	3.13
	0.00	0.00	.83	0.00	0.00	0.00	.83	
	0.00	0.00	.03	0.00	0.00	0.00	.03	
NE	0	2	2	0	0	0	4	2.92
	0.00	1.67	1.67	0.00	0.00	0.00	3.33	
	0.00	.06	.06	0.00	0.00	0.00	.12	
ENE	0	1	0	0	0	0	1	1.79
	0.00	.83	0.00	0.00	0.00	0.00	.83	
	0.00	.03	0.00	0.00	0.00	0.00	.03	
E	0	3	2	0	0	0	5	3.08
	0.00	2.50	1.67	0.00	0.00	0.00	4.17	
	0.00	.09	.06	0.00	0.00	0.00	.15	
ESE	0	0	2	2	0	0	4	5.02
	0.00	0.00	1.67	1.67	0.00	0.00	3.33	
	0.00	0.00	.06	.06	0.00	0.00	.12	
SE	0	1	7	3	1	0	12	4.58
	0.00	.83	5.83	2.50	.83	0.00	10.00	
	0.00	.03	.20	.09	.03	0.00	.35	
SSE	0	1	4	5	0	0	10	4.72
	0.00	.83	3.33	4.17	0.00	0.00	8.33	
	0.00	.03	.12	.15	0.00	0.00	.29	
S	0	3	12	10	1	0	26	4.88
	0.00	2.50	10.00	8.33	.83	0.00	21.67	
	0.00	.09	.35	.29	.03	0.00	.75	
SSW	1	2	1	6	2	0	12	5.49
	.83	1.67	.83	5.00	1.67	0.00	10.00	
	.03	.06	.03	.17	.06	0.00	.35	
SW	0	0	5	4	1	0	10	5.52
	0.00	0.00	4.17	3.33	.83	0.00	8.33	
	0.00	0.00	.15	.12	.03	0.00	.29	
WSW	1	0	1	0	0	0	2	2.46
	.83	0.00	.83	0.00	0.00	0.00	1.67	
	.03	0.00	.03	0.00	0.00	0.00	.06	
W	1	1	0	0	0	0	2	2.10
	.83	.83	0.00	0.00	0.00	0.00	1.67	
	.03	.03	0.00	0.00	0.00	0.00	.06	
WNW	0	1	2	3	0	0	6	4.65
	0.00	.83	1.67	2.50	0.00	0.00	5.00	
	0.00	.03	.06	.09	0.00	0.00	.17	
NW	0	2	3	3	0	0	8	4.14
	0.00	1.67	2.50	2.50	0.00	0.00	6.67	
	0.00	.06	.09	.09	0.00	0.00	.23	
NNW	0	2	3	1	1	0	7	4.54
	0.00	1.67	2.50	.83	.83	0.00	5.83	
	0.00	.06	.09	.03	.03	0.00	.20	
N	0	1	7	2	0	0	10	4.08
	0.00	.83	5.83	1.67	0.00	0.00	8.33	
	0.00	.03	.20	.06	0.00	0.00	.29	
CALM	0						0	CALM
	0.00						0.00	
	0.00						0.00	
TOTAL	3	20	52	39	6	0	120	4.54
	2.50	16.67	43.33	32.50	5.00	0.00	100.00	
	.09	.58	1.51	1.13	.17	0.00	3.48	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.51

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JUNE 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.52.06.

COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7035-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0 0.00 0.00	3 1.82 .09	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	3 1.82 .09	2.03
NE	1 .61 .03	1 .61 .03	1 .61 .03	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	3 1.82 .09	2.21
ENE	0 0.00 0.00	4 2.42 .12	0 0.00 0.00	2 1.21 .06	0 0.00 0.00	0 0.00 0.00	6 3.64 .17	3.40
E	0 0.00 0.00	1 .61 .03	2 1.21 .06	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	3 1.82 .09	2.83
ESE	0 0.00 0.00	0 0.00 0.00	1 .61 .03	1 .61 .03	0 0.00 0.00	0 0.00 0.00	2 1.21 .06	5.15
SE	0 0.00 0.00	1 .61 .03	7 4.24 .20	2 1.21 .06	0 0.00 0.00	0 0.00 0.00	10 6.06 .29	4.02
SSE	0 0.00 0.00	4 2.42 .12	6 3.64 .17	7 4.24 .20	0 0.00 0.00	0 0.00 0.00	17 10.30 .49	4.28
S	0 0.00 0.00	6 3.64 .17	18 10.91 .52	11 6.67 .32	0 0.00 0.00	0 0.00 0.00	35 21.21 1.02	4.44
SSW	0 0.00 0.00	3 1.82 .09	8 4.85 .23	10 6.06 .29	4 2.42 .12	0 0.00 0.00	25 15.15 .73	5.46
SW	0 0.00 0.00	2 1.21 .06	7 4.24 .20	1 .61 .03	0 0.00 0.00	0 0.00 0.00	10 6.06 .29	4.06
WSW	3 1.82 .09	0 0.00 0.00	2 1.21 .06	2 1.21 .06	0 0.00 0.00	0 0.00 0.00	7 4.24 .20	3.35
W	1 .61 .03	2 1.21 .06	6 3.64 .17	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	9 5.45 .26	3.18
WNW	1 .61 .03	1 .61 .03	2 1.21 .06	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	4 2.42 .12	3.21
NW	0 0.00 0.00	1 .61 .03	1 .61 .03	3 1.82 .09	0 0.00 0.00	0 0.00 0.00	5 3.03 .15	5.09
NNW	0 0.00 0.00	2 1.21 .06	5 3.03 .15	6 3.64 .17	0 0.00 0.00	0 0.00 0.00	13 7.88 .38	4.83
N	1 .61 .03	2 1.21 .06	6 3.64 .17	2 1.21 .06	0 0.00 0.00	0 0.00 0.00	11 6.67 .32	3.79
CALM	2 1.21 .06						2 1.21 .06	CALM
TOTAL	9 5.45 .26	33 20.00 .96	72 43.64 2.09	47 28.48 1.36	4 2.42 .12	0 0.00 0.00	165 100.00 4.79	4.19

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.52

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JUNE 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.52.06.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	4	9	12	6	0	0	31	3.55
	.45	1.02	1.35	.68	0.00	.00	3.50	
	.12	.26	.35	.17	0.00	.00	.90	
NE	3	6	4	2	0	0	15	3.04
	.34	.68	.45	.23	0.00	0.00	1.69	
	.09	.17	.12	.06	0.00	0.00	.44	
ENE	2	8	9	6	0	0	25	3.61
	.23	.90	1.02	.68	0.00	0.00	2.82	
	.06	.23	.26	.17	0.00	0.00	.73	
E	1	14	13	8	0	0	36	3.45
	.11	1.58	1.47	.90	0.00	0.00	4.06	
	.03	.41	.38	.23	0.00	0.00	1.04	
ESE	0	10	15	2	1	0	28	3.60
	0.00	1.13	1.69	.23	.11	0.00	3.16	
	0.00	.29	.44	.06	.03	0.00	.81	
SE	5	16	43	14	1	0	79	3.90
	.56	1.81	4.85	1.58	.11	0.00	8.92	
	.15	.46	1.25	.41	.03	0.00	2.29	
SSE	5	28	64	32	0	0	129	3.99
	.56	3.16	7.22	3.61	0.00	0.00	14.56	
	.15	.81	1.86	.93	0.00	0.00	3.74	
S	11	37	70	25	3	0	146	3.82
	1.24	4.18	7.90	2.82	.34	0.00	16.48	
	.32	1.07	2.03	.73	.09	0.00	4.24	
SSW	1	23	53	47	4	0	128	4.71
	.11	2.60	5.98	5.30	.45	0.00	14.45	
	.03	.67	1.54	1.36	.12	0.00	3.71	
SW	4	13	17	19	0	0	53	4.02
	.45	1.47	1.92	2.14	0.00	0.00	5.98	
	.12	.38	.49	.55	0.00	0.00	1.54	
WSW	4	14	13	1	0	0	32	2.76
	.45	1.58	1.47	.11	0.00	0.00	3.61	
	.12	.41	.38	.03	0.00	0.00	.93	
W	2	10	6	2	0	0	20	2.72
	.23	1.13	.68	.23	0.00	0.00	2.25	
	.06	.29	.17	.06	0.00	0.00	.58	
WNW	2	9	6	5	0	0	22	3.48
	.23	1.02	.68	.56	0.00	0.00	2.48	
	.06	.26	.17	.15	0.00	0.00	.64	
NW	4	7	20	15	7	0	53	4.67
	.45	.79	2.26	1.69	.79	0.00	5.98	
	.12	.20	.58	.44	.20	0.00	1.54	
NNW	2	10	11	12	0	0	35	3.99
	.23	1.13	1.24	1.35	0.00	0.00	3.95	
	.06	.29	.32	.35	0.00	0.00	1.02	
N	3	19	20	4	0	0	46	3.27
	.34	2.14	2.26	.45	0.00	0.00	5.19	
	.09	.55	.58	.12	0.00	0.00	1.33	
CALM	8						8	CALM
	.90						.90	
	.23						.23	
TOTAL	61	233	376	200	16	0	886	3.87
	6.88	26.30	42.44	22.57	1.81	0.00	100.00	
	1.77	6.76	10.91	5.80	.46	0.00	25.71	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.53

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JUNE 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.52.06.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	7	24	15	0	0	0	46	2.57
	.68	2.34	1.46	0.00	0.00	0.00	4.49	
	.20	.70	.44	0.00	0.00	0.00	1.33	
NE	6	19	3	0	0	0	28	2.32
	.59	1.85	.29	0.00	0.00	0.00	2.73	
	.17	.55	.09	0.00	0.00	0.00	.81	
ENE	4	29	14	0	0	0	47	2.53
	.39	2.83	1.37	0.00	0.00	0.00	4.59	
	.12	.84	.41	0.00	0.00	0.00	1.36	
E	3	27	2	0	0	0	32	2.15
	.29	2.63	.20	0.00	0.00	0.00	3.12	
	.09	.78	.06	0.00	0.00	0.00	.93	
ESE	8	41	4	0	0	0	53	2.22
	.78	4.00	.39	0.00	0.00	0.00	5.17	
	.23	1.19	.12	0.00	0.00	0.00	1.54	
SE	11	46	29	1	0	0	87	2.51
	1.07	4.49	2.83	.10	0.00	0.00	8.49	
	.32	1.33	.84	.03	0.00	0.00	2.52	
SSE	14	63	47	2	0	0	126	2.69
	1.37	6.15	4.59	.20	0.00	0.00	12.29	
	.41	1.83	1.36	.06	0.00	0.00	3.66	
S	21	69	91	3	0	0	184	2.92
	2.05	6.73	8.88	.29	0.00	0.00	17.95	
	.61	2.00	2.64	.09	0.00	0.00	5.34	
SSW	10	52	63	5	0	0	130	3.17
	.98	5.07	6.15	.49	0.00	0.00	12.68	
	.29	1.51	1.83	.15	0.00	0.00	3.77	
SW	5	33	18	0	1	0	57	2.85
	.49	3.22	1.76	0.00	.10	0.00	5.56	
	.15	.96	.52	0.00	.03	0.00	1.65	
WSW	4	19	5	0	0	0	28	2.11
	.39	1.85	.49	0.00	0.00	0.00	2.73	
	.12	.55	.15	0.00	0.00	0.00	.81	
W	7	5	5	0	0	0	17	2.08
	.68	.49	.49	0.00	0.00	0.00	1.66	
	.20	.15	.15	0.00	0.00	0.00	.49	
WNW	4	10	6	0	0	0	20	2.53
	.39	.98	.59	0.00	0.00	0.00	1.95	
	.12	.29	.17	0.00	0.00	0.00	.58	
NW	6	19	14	0	0	0	39	2.83
	.59	1.85	1.37	0.00	0.00	0.00	3.80	
	.17	.55	.41	0.00	0.00	0.00	1.13	
NNW	10	18	19	1	0	0	48	2.59
	.98	1.76	1.85	.10	0.00	0.00	4.68	
	.29	.52	.55	.03	0.00	0.00	1.39	
N	16	36	20	0	0	0	72	2.37
	1.56	3.51	1.95	0.00	0.00	0.00	7.02	
	.46	1.04	.58	0.00	0.00	0.00	2.09	
CALM	11						11	CALM
	1.07						1.07	
	.32						.32	
TOTAL	147	510	355	12	1	0	1025	2.65
	14.34	49.76	34.63	1.17	.10	0.00	100.00	
	4.27	14.80	10.30	.35	.03	0.00	29.74	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.54

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JUNE 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.52.06.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	6	8	0	0	0	0	14	1.56
	1.81	2.42	0.00	0.00	0.00	0.00	4.23	
	.17	.23	0.00	0.00	0.00	0.00	.41	
NE	7	6	0	0	0	0	13	1.53
	2.11	1.81	0.00	0.00	0.00	0.00	3.93	
	.20	.17	0.00	0.00	0.00	0.00	.38	
ENE	2	4	0	0	0	0	6	1.81
	.60	1.21	0.00	0.00	0.00	0.00	1.81	
	.06	.12	0.00	0.00	0.00	0.00	.17	
E	6	8	1	0	0	0	18	1.56
	2.72	2.42	.33	0.00	0.00	0.00	5.44	
	.26	.23	.03	0.00	0.00	0.00	.52	
ESE	5	6	0	0	0	0	11	1.67
	1.51	1.81	0.00	0.00	0.00	0.00	3.32	
	.15	.17	0.00	0.00	0.00	0.00	.32	
SE	5	13	0	0	0	0	18	1.62
	1.51	3.93	0.00	0.00	0.00	0.00	5.44	
	.15	.38	0.00	0.00	0.00	0.00	.52	
SSE	3	10	2	0	0	0	15	2.01
	.91	3.02	.60	0.00	0.00	0.00	4.53	
	.09	.29	.06	0.00	0.00	0.00	.44	
S	12	19	4	0	0	0	35	1.96
	3.63	5.74	1.21	0.00	0.00	0.00	10.57	
	.35	.55	.12	0.00	0.00	0.00	1.02	
SSW	4	15	4	0	0	0	23	2.18
	1.21	4.53	1.21	0.00	0.00	0.00	6.95	
	.12	.44	.12	0.00	0.00	0.00	.67	
SW	3	13	4	0	0	0	20	2.37
	.91	3.93	1.21	0.00	0.00	0.00	6.04	
	.09	.38	.12	0.00	0.00	0.00	.58	
WSW	4	11	0	0	0	0	15	1.82
	1.21	3.32	0.00	0.00	0.00	0.00	4.53	
	.12	.32	0.00	0.00	0.00	0.00	.44	
W	7	9	6	0	0	0	16	1.64
	2.11	2.72	0.00	0.00	0.00	0.00	4.83	
	.20	.26	0.00	0.00	0.00	0.00	.46	
WNW	7	9	6	0	0	0	22	2.02
	2.11	2.72	1.81	0.00	0.00	0.00	6.65	
	.20	.26	.17	0.00	0.00	0.00	.64	
NW	11	12	2	0	0	0	25	1.70
	3.32	3.63	.60	0.00	0.00	0.00	7.55	
	.32	.35	.06	0.00	0.00	0.00	.73	
NNW	15	18	1	0	0	0	34	1.68
	4.53	5.44	.30	0.00	0.00	0.00	10.27	
	.44	.52	.03	0.00	0.00	0.00	.99	
N	20	11	3	0	0	0	34	1.56
	6.04	3.32	.91	0.00	0.00	0.00	10.27	
	.58	.32	.09	0.00	0.00	0.00	.99	
CALM	12						12	CALM
	3.63						3.63	
	.35						.35	
TOTAL	132	172	27	0	0	0	331	1.74
	39.88	51.96	8.16	0.00	0.00	0.00	100.00	
	3.83	4.99	.78	0.00	0.00	0.00	9.61	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.55

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JUNE 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.57 METERS
TABLE GENERATED: 05/14/77. 11.52.06.

COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	8	1	0	0	0	0	9	1.25
	6.90	.86	0.00	0.00	0.00	0.00	7.76	
	.23	.03	0.00	0.00	0.00	0.00	.26	
NE	2	0	0	0	0	0	2	1.46
	1.72	0.00	0.00	0.00	0.00	0.00	1.72	
	.06	0.00	0.00	0.00	0.00	0.00	.06	
ENE	2	1	0	0	0	0	3	1.16
	1.72	.86	0.00	0.00	0.00	0.00	2.59	
	.06	.03	0.00	0.00	0.00	0.00	.09	
E	1	0	0	0	0	0	1	1.27
	.86	0.00	0.00	0.00	0.00	0.00	.86	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
ESE	2	0	0	0	0	0	2	.99
	1.72	0.00	0.00	0.00	0.00	0.00	1.72	
	.06	0.00	0.00	0.00	0.00	0.00	.06	
SE	3	0	0	0	0	0	3	.99
	2.59	0.00	0.00	0.00	0.00	0.00	2.59	
	.09	0.00	0.00	0.00	0.00	0.00	.09	
SSE	2	2	0	0	0	0	4	1.24
	1.72	1.72	0.00	0.00	0.00	0.00	3.45	
	.06	.06	0.00	0.00	0.00	0.00	.12	
S	1	3	0	0	0	0	4	1.96
	.86	2.59	0.00	0.00	0.00	0.00	3.45	
	.03	.09	0.00	0.00	0.00	0.00	.12	
SSW	3	1	2	0	0	0	6	2.01
	2.59	.86	1.72	0.00	0.00	0.00	5.17	
	.09	.03	.06	0.00	0.00	0.00	.17	
SW	2	6	2	0	0	0	10	2.25
	1.72	5.17	1.72	0.00	0.00	0.00	8.62	
	.06	.17	.06	0.00	0.00	0.00	.29	
WSW	8	2	0	0	0	0	10	1.30
	6.90	1.72	0.00	0.00	0.00	0.00	8.62	
	.23	.06	0.00	0.00	0.00	0.00	.29	
W	2	5	0	0	0	0	7	1.79
	1.72	4.31	0.00	0.00	0.00	0.00	6.03	
	.06	.15	0.00	0.00	0.00	0.00	.20	
WNW	7	3	1	0	0	0	11	1.59
	6.03	2.59	.86	0.00	0.00	0.00	9.48	
	.20	.09	.03	0.00	0.00	0.00	.32	
NW	6	13	2	0	0	0	21	1.86
	5.17	11.21	1.72	0.00	0.00	0.00	18.10	
	.17	.38	.06	0.00	0.00	0.00	.61	
NNW	6	3	0	0	0	0	9	1.46
	5.17	2.59	0.00	0.00	0.00	0.00	7.76	
	.17	.09	0.00	0.00	0.00	0.00	.26	
N	8	0	0	0	0	0	8	.93
	6.90	0.00	0.00	0.00	0.00	0.00	6.90	
	.23	0.00	0.00	0.00	0.00	0.00	.23	
CALM	6						6	CALM
	5.17						5.17	
	.17						.17	
TOTAL	69	40	7	0	0	0	116	1.50
	59.48	34.48	6.03	0.00	0.00	0.00	100.00	
	2.00	1.16	.20	0.00	0.00	0.00	3.37	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.56

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JUNE 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.52.06.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.6-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	28 .81	56 1.63	39 1.13	9 .26	0 0.00	0 0.00	132 3.83	2.74
NE	22 .64	42 1.22	14 .41	2 .06	0 0.00	0 0.00	80 2.32	2.33
ENE	15 .44	62 1.80	30 .87	9 .26	0 0.00	0 0.00	116 3.37	2.73
E	15 .44	66 1.92	29 .84	9 .26	0 0.00	0 0.00	119 3.45	2.65
ESE	16 .46	62 1.80	36 1.04	15 .44	1 .03	0 0.00	130 3.77	3.07
SE	28 .81	86 2.50	107 3.11	23 .67	2 .06	0 0.00	246 7.14	3.20
SSE	26 .75	112 3.25	153 4.44	71 2.06	0 0.00	0 0.00	362 10.50	3.58
S	46 1.33	142 4.12	219 6.36	97 2.81	16 .46	0 0.00	520 15.09	3.78
SSW	20 .58	101 2.93	143 4.15	97 2.81	30 .87	0 0.00	391 11.35	4.35
SW	14 .41	77 2.23	71 2.06	49 1.42	16 .46	0 0.00	227 6.59	4.01
WSW	27 .78	50 1.45	39 1.13	6 .17	0 0.00	0 0.00	122 3.54	2.59
W	21 .61	45 1.31	39 1.13	7 .20	0 0.00	0 0.00	112 3.25	2.78
WNW	21 .61	36 1.04	36 1.04	25 .73	5 .15	0 0.00	123 3.57	3.53
NW	27 .78	58 1.68	65 1.89	61 1.77	16 .46	1 .03	228 6.62	4.04
NNW	33 .96	60 1.74	58 1.68	66 1.92	18 .52	1 .03	236 6.85	4.09
N	52 1.51	63 2.41	82 2.38	24 .70	10 .29	0 0.00	251 7.28	3.12
CALM	51 1.48						51 1.48	CALM
TOTAL	462 13.41	1138 33.02	1160 33.66	570 16.54	114 3.31	2 .06	3446 100.00	3.47

NUMBER OF VALID OBSERVATIONS	3446	79.77 PCT.
NUMBER OF INVALID OBSERVATIONS	874	20.23 PCT.
TOTAL NUMBER OF OBSERVATIONS	4320	100.00 PCT.

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES

TABLE 2.57

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JULY 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.54.47.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	16	50	18	2	0	89	4.00
	.32	1.71	5.34	1.92	.21	0.00	9.51	
	.08	.45	1.39	.50	.06	0.00	2.48	
NE	8	13	9	0	0	0	30	2.39
	.85	1.39	.96	0.00	0.00	0.00	3.21	
	.22	.36	.25	0.00	0.00	0.00	.84	
ENE	0	10	0	0	0	0	10	2.06
	0.00	1.07	0.00	0.00	0.00	0.00	1.07	
	0.00	.28	0.00	0.00	0.00	0.00	.28	
E	7	7	1	0	0	0	15	1.84
	.75	.75	.11	0.00	0.00	0.00	1.60	
	.20	.20	.03	0.00	0.00	0.00	.42	
ESE	7	5	3	0	0	0	15	2.12
	.75	.53	.32	0.00	0.00	0.00	1.60	
	.20	.14	.08	0.00	0.00	0.00	.42	
SE	3	10	18	4	0	0	35	3.43
	.32	1.07	1.92	.43	0.00	0.00	3.74	
	.08	.28	.50	.11	0.00	0.00	.98	
SSE	0	28	72	25	1	0	127	4.07
	0.00	2.99	7.69	2.78	.11	0.00	13.57	
	0.00	.78	2.01	.72	.03	0.00	3.54	
S	1	16	72	69	13	2	173	5.06
	.11	1.71	7.69	7.37	1.39	.21	18.48	
	.03	.45	2.01	1.92	.36	.06	4.82	
SSW	1	13	38	34	8	7	101	5.32
	.11	1.39	4.06	3.63	.85	.75	10.79	
	.03	.36	1.06	.95	.22	.20	2.81	
SW	1	9	19	13	11	1	54	5.34
	.11	.96	2.03	1.39	1.18	.11	5.77	
	.03	.25	.53	.36	.31	.03	1.50	
WSW	0	17	10	0	0	0	27	2.78
	0.00	1.82	1.07	0.00	0.00	0.00	2.88	
	0.00	.47	.28	0.00	0.00	0.00	.75	
W	2	18	9	0	0	0	29	2.67
	.21	1.92	.96	0.00	0.00	0.00	3.10	
	.06	.50	.25	0.00	0.00	0.00	.81	
WNW	0	10	8	2	0	0	20	3.33
	0.00	1.07	.85	.21	0.00	0.00	2.14	
	0.00	.28	.22	.06	0.00	0.00	.56	
NW	4	4	12	1	1	0	22	3.39
	.43	.43	1.28	.11	.11	0.00	2.35	
	.11	.11	.33	.03	.03	0.00	.61	
NNW	5	4	15	9	4	0	37	4.37
	.53	.43	1.60	.96	.43	0.00	3.95	
	.14	.11	.42	.25	.11	0.00	1.03	
N	5	14	59	35	9	0	122	4.58
	.53	1.50	6.30	3.74	.96	0.00	13.03	
	.14	.39	1.64	.98	.25	0.00	3.40	
CALM	30						30	CALM
	3.21						3.21	
	.84						.84	
TOTAL	77	194	395	211	49	10	936	4.12
	8.23	20.73	42.20	22.54	5.24	1.07	100.00	
	2.15	5.41	11.01	5.88	1.37	.28	26.08	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.58

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JULY 1970 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.54.47.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1 .65 .03	1 .65 .03	2 1.30 .06	1 .65 .03	0 0.00 0.00	0 0.00 0.00	5 3.25 .14	3.68
NE	0 0.00 0.00	4 2.60 .11	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	4 2.60 .11	2.00
ENE	0 0.00 0.00	1 .65 .03	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1 .65 .03	2.85
E	0 0.00 0.00	3 1.95 .08	2 1.30 .06	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	5 3.25 .14	3.05
ESE	0 0.00 0.00	1 .65 .03	2 1.30 .06	0 0.00 0.00	1 .65 .03	0 0.00 0.00	4 2.60 .11	4.55
SE	0 0.00 0.00	2 1.30 .06	6 3.90 .17	3 1.95 .08	0 0.00 0.00	0 0.00 0.00	11 7.14 .31	4.03
SSE	0 0.00 0.00	8 5.19 .22	14 9.09 .39	4 2.60 .11	0 0.00 0.00	0 0.00 0.00	26 16.88 .72	3.82
S	0 0.00 0.00	6 3.90 .17	10 6.49 .28	8 5.19 .22	0 0.00 0.00	1 .65 .03	25 16.23 .70	4.68
SSW	0 0.00 0.00	5 3.25 .14	12 7.79 .33	4 2.60 .11	0 0.00 0.00	1 .65 .03	22 14.29 .61	4.31
SW	0 0.00 0.00	4 2.60 .11	8 5.19 .22	4 2.60 .11	2 1.30 .06	0 0.00 0.00	18 11.69 .50	4.55
WSW	0 0.00 0.00	2 1.30 .06	4 2.60 .11	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	6 3.90 .17	3.21
W	0 0.00 0.00	2 1.30 .06	2 1.30 .06	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	4 2.60 .11	2.91
WNW	1 .65 .03	1 .65 .03	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	2 1.30 .06	2.02
NW	0 0.00 0.00	0 0.00 0.00	1 .65 .03	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1 .65 .03	3.13
NNW	1 .65 .03	2 1.30 .06	3 1.95 .08	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	6 3.90 .17	2.88
N	1 .65 .03	2 1.30 .06	4 2.60 .11	4 2.60 .11	1 .65 .03	0 0.00 0.00	12 7.79 .33	4.82
CALM	2 1.30 .06						2 1.30 .06	CALM
TOTAL	6 3.90 .17	44 28.57 1.23	70 45.45 1.95	28 18.18 .78	4 2.60 .11	2 1.30 .06	154 100.00 4.29	3.98

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.59

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JULY 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.54.47.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	3	3	1	0	0	7	3.54
	0.00	1.76	1.76	.59	0.00	0.00	4.12	
	0.00	.08	.08	.03	0.00	0.00	.20	
NE	2	1	3	0	0	0	6	2.49
	1.18	.59	1.76	0.00	0.00	0.00	3.53	
	.06	.03	.08	0.00	0.00	0.00	.17	
ENE	0	6	1	0	0	0	7	2.45
	0.00	3.53	.59	0.00	0.00	0.00	4.12	
	0.00	.17	.03	0.00	0.00	0.00	.20	
E	0	3	1	1	0	0	5	3.49
	0.00	1.76	.59	.59	0.00	0.00	2.94	
	0.00	.08	.03	.03	0.00	0.00	.14	
ESE	0	1	2	1	0	0	4	4.18
	0.00	.59	1.18	.59	0.00	0.00	2.35	
	0.00	.03	.06	.03	0.00	0.00	.11	
SE	2	2	3	1	0	0	8	2.90
	1.18	1.18	1.76	.59	0.00	0.00	4.71	
	.06	.06	.08	.03	0.00	0.00	.22	
SSE	2	9	17	3	0	0	31	3.24
	1.18	5.29	10.00	1.76	0.00	0.00	18.24	
	.06	.25	.47	.08	0.00	0.00	.86	
S	0	2	14	10	0	0	26	4.47
	0.00	1.18	8.24	5.88	0.00	0.00	15.29	
	0.00	.06	.39	.28	0.00	0.00	.72	
SSW	0	4	13	5	3	0	25	4.48
	0.00	2.35	7.65	2.94	1.76	0.00	14.71	
	0.00	.11	.36	.14	.08	0.00	.70	
SW	0	6	12	3	1	0	22	3.84
	0.00	3.53	7.06	1.76	.59	0.00	12.94	
	0.00	.17	.33	.08	.03	0.00	.61	
WSW	0	2	1	1	0	0	4	3.38
	0.00	1.18	.59	.59	0.00	0.00	2.35	
	0.00	.06	.03	.03	0.00	0.00	.11	
W	0	1	1	0	0	0	2	3.11
	0.00	.59	.59	0.00	0.00	0.00	1.18	
	0.00	.03	.03	0.00	0.00	0.00	.06	
WNW	0	1	0	0	0	0	1	2.18
	0.00	.59	0.00	0.00	0.00	0.00	.59	
	0.00	.03	0.00	0.00	0.00	0.00	.03	
NW	1	0	0	0	0	0	1	.74
	.59	0.00	0.00	0.00	0.00	0.00	.59	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
NNW	0	0	2	1	0	0	3	4.79
	0.00	0.00	1.18	.59	0.00	0.00	1.76	
	0.00	0.00	.06	.03	0.00	0.00	.08	
N	0	2	6	7	0	0	15	4.52
	0.00	1.18	3.53	4.12	0.00	0.00	8.82	
	0.00	.06	.17	.20	0.00	0.00	.42	
CALM	3						3	CALM
	1.76						1.76	
	.08						.08	
TOTAL	10	43	79	34	4	0	170	3.72
	5.88	25.29	46.47	20.00	2.35	0.00	100.00	
	.28	1.20	2.20	.95	.11	0.00	4.74	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.60

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JULY 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.54.47.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	5	14	27	2	0	0	48	3.20
	.68	1.90	3.67	.27	0.00	0.00	6.53	
	.14	.39	.75	.05	0.00	0.00	1.34	
NE	2	25	12	1	0	0	40	*2.75
	.27	3.40	1.63	.14	0.00	0.00	5.44	
	.06	.70	.33	.03	0.00	0.00	1.11	
ENE	8	17	1	0	0	0	26	1.90
	1.09	2.31	.14	0.00	0.00	0.00	3.54	
	.22	.47	.03	0.00	0.00	0.00	.72	
E	2	13	4	0	0	0	19	2.39
	.27	1.77	.54	0.00	0.00	0.00	2.59	
	.06	.36	.11	0.00	0.00	0.00	.53	
ESE	6	15	13	1	0	0	35	2.73
	.82	2.04	1.77	.14	0.00	0.00	4.76	
	.17	.42	.36	.03	0.00	0.00	.98	
SE	6	18	23	4	0	0	51	3.25
	.82	2.45	3.13	.54	0.00	0.00	6.94	
	.17	.50	.64	.11	0.00	0.00	1.42	
SSE	4	32	42	5	1	0	84	3.34
	.54	4.35	5.71	.68	.14	0.00	11.43	
	.11	.89	1.17	.14	.03	0.00	2.34	
S	4	32	52	23	8	0	119	4.10
	.54	4.35	7.07	3.13	1.09	0.00	16.19	
	.11	.89	1.45	.64	.22	0.00	3.32	
SSW	5	22	33	17	6	0	83	4.12
	.68	2.99	4.49	2.31	.82	0.00	11.29	
	.14	.61	.92	.47	.17	0.00	2.31	
SW	2	15	16	7	3	0	43	3.83
	.27	2.04	2.18	.95	.41	0.00	5.85	
	.06	.42	.45	.20	.08	0.00	1.20	
WSW	1	15	12	1	0	0	29	2.95
	.14	2.04	1.63	.14	0.00	0.00	3.95	
	.03	.42	.33	.03	0.00	0.00	.81	
W	5	2	2	0	0	0	9	1.97
	.68	.27	.27	0.00	0.00	0.00	1.22	
	.14	.06	.06	0.00	0.00	0.00	.25	
WNW	0	5	2	2	0	0	9	3.12
	0.00	.68	.27	.27	0.00	0.00	1.22	
	0.00	.14	.06	.06	0.00	0.00	.25	
NW	1	5	7	2	0	0	15	3.49
	.14	.68	.95	.27	0.00	0.00	2.04	
	.03	.14	.20	.06	0.00	0.00	.42	
NNW	2	19	11	0	0	0	32	2.69
	.27	2.59	1.50	0.00	0.00	0.00	4.35	
	.06	.53	.31	0.00	0.00	0.00	.89	
N	4	21	46	11	0	0	82	3.53
	.54	2.86	6.25	1.50	0.00	0.00	11.16	
	.11	.59	1.28	.31	0.00	0.00	2.28	
CALM	11						11	CALM
	1.50						1.50	
	.31						.31	
TOTAL	68	270	303	76	18	0	735	3.35
	9.25	36.73	41.22	10.34	2.45	0.00	100.00	
	1.89	7.52	8.44	2.12	.50	0.00	20.48	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.61

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JULY 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.54.47.

COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
BAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	8	28	5	1	0	0	42	2.17
	.78	2.73	.49	.10	0.00	0.00	4.10	
	.22	.78	.14	.03	0.00	0.00	1.17	
NE	14	17	0	0	0	0	31	1.65
	1.37	1.65	0.00	0.00	0.00	0.00	3.02	
	.39	.47	0.00	0.00	0.00	0.00	.86	
ENE	6	9	0	0	0	0	15	1.76
	.59	.88	0.00	0.00	0.00	0.00	1.46	
	.17	.25	0.00	0.00	0.00	0.00	.42	
E	9	10	1	0	0	0	20	1.80
	.88	.98	.10	0.00	0.00	0.00	1.95	
	.25	.28	.03	0.00	0.00	0.00	.56	
ESE	0	26	5	0	0	0	31	2.45
	0.00	2.54	.49	0.00	0.00	0.00	3.02	
	0.00	.72	.14	0.00	0.00	0.00	.86	
SE	11	40	22	0	0	0	73	2.41
	1.07	3.90	2.15	0.00	0.00	0.00	7.12	
	.31	1.11	.61	0.00	0.00	0.00	2.03	
SSE	14	84	48	3	0	0	149	2.68
	1.37	8.20	4.68	.29	0.00	0.00	14.54	
	.39	2.34	1.34	.08	0.00	0.00	4.15	
S	12	132	77	7	0	0	228	2.87
	1.17	12.88	7.51	.68	0.00	0.00	22.24	
	.33	3.68	2.15	.20	0.00	0.00	6.35	
SSW	11	74	66	9	0	0	154	3.05
	1.07	7.22	5.85	.88	0.00	0.00	15.02	
	.31	2.06	1.67	.25	0.00	0.00	4.29	
SW	8	30	51	1	0	0	90	3.05
	.78	2.93	4.98	.10	0.00	0.00	8.78	
	.22	.84	1.42	.03	0.00	0.00	2.51	
WSW	7	12	10	1	0	0	30	2.58
	.68	1.17	.98	.10	0.00	0.00	2.93	
	.20	.33	.28	.03	0.00	0.00	.84	
W	6	7	6	1	0	0	20	2.59
	.59	.68	.59	.10	0.00	0.00	1.95	
	.17	.20	.17	.03	0.00	0.00	.56	
WNW	7	12	6	1	0	0	26	2.35
	.68	1.17	.59	.10	0.00	0.00	2.54	
	.20	.33	.17	.03	0.00	0.00	.72	
NW	4	9	7	0	0	0	20	2.39
	.39	.88	.68	0.00	0.00	0.00	1.95	
	.11	.25	.20	0.00	0.00	0.00	.56	
NNW	6	16	1	1	0	0	24	2.06
	.59	1.56	.10	.10	0.00	0.00	2.34	
	.17	.45	.03	.03	0.00	0.00	.67	
N	10	43	13	0	0	0	66	2.34
	.98	4.20	1.27	0.00	0.00	0.00	6.44	
	.28	1.20	.36	0.00	0.00	0.00	1.84	
CALM	6						6	CALM
	.59						.59	
	.17						.17	
TOTAL	139	549	312	25	0	0	1025	2.63
	13.56	53.56	30.44	2.44	0.00	0.00	100.00	
	3.87	15.30	8.69	.70	0.00	0.00	28.56	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.62

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JULY 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.54.47.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND): 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	7	6	0	0	0	0	13	1.48
	1.60	1.37	0.00	0.00	0.00	0.00	2.97	
	.20	.17	0.00	0.00	0.00	0.00	.36	
NE	1	4	0	0	0	0	5	1.63
	.23	.91	0.00	0.00	0.00	0.00	1.14	
	.03	.11	0.00	0.00	0.00	0.00	.14	
ENE	3	1	0	0	0	0	4	1.17
	.68	.23	0.00	0.00	0.00	0.00	.91	
	.08	.03	0.00	0.00	0.00	0.00	.11	
E	9	0	0	0	0	0	9	.98
	2.05	0.00	0.00	0.00	0.00	0.00	2.05	
	.25	0.00	0.00	0.00	0.00	0.00	.25	
ESE	5	10	0	0	0	0	15	1.60
	1.14	2.28	0.00	0.00	0.00	0.00	3.42	
	.14	.28	0.00	0.00	0.00	0.00	.42	
SE	12	26	1	0	0	0	39	1.40
	2.74	5.94	.23	0.00	0.00	0.00	8.90	
	.33	.72	.03	0.00	0.00	0.00	1.09	
SSE	17	42	1	0	0	0	60	1.86
	3.88	9.59	.23	0.00	0.00	0.00	13.70	
	.47	1.17	.03	0.00	0.00	0.00	1.67	
S	22	67	0	0	0	0	89	1.93
	5.02	15.30	0.00	0.00	0.00	0.00	20.32	
	.61	1.87	0.00	0.00	0.00	0.00	2.48	
SSW	12	44	3	1	0	0	60	2.02
	2.74	10.05	.68	.23	0.00	0.00	13.70	
	.33	1.23	.08	.03	0.00	0.00	1.67	
SW	18	19	4	0	0	0	41	1.79
	4.11	4.34	.91	0.00	0.00	0.00	9.36	
	.50	.53	.11	0.00	0.00	0.00	1.14	
WSW	12	4	1	0	0	0	17	1.28
	2.74	.91	.23	0.00	0.00	0.00	3.88	
	.33	.11	.03	0.00	0.00	0.00	.47	
W	10	5	0	0	0	0	15	1.36
	2.28	1.14	0.00	0.00	0.00	0.00	3.42	
	.28	.14	0.00	0.00	0.00	0.00	.42	
WNW	5	2	1	0	0	0	8	1.48
	1.14	.46	.23	0.00	0.00	0.00	1.83	
	.14	.06	.03	0.00	0.00	0.00	.22	
NW	4	2	2	1	0	0	9	2.42
	.91	.46	.46	.23	0.00	0.00	2.05	
	.11	.05	.06	.03	0.00	0.00	.25	
NNW	11	5	1	0	0	0	17	1.19
	2.51	1.14	.23	0.00	0.00	0.00	3.88	
	.31	.14	.03	0.00	0.00	0.00	.47	
N	18	9	1	0	0	0	28	1.34
	4.11	2.05	.23	0.00	0.00	0.00	6.39	
	.50	.25	.03	0.00	0.00	0.00	.78	
CALM	9						9	CALM
	2.05						2.05	
	.25						.25	
TOTAL	175	246	15	2	0	0	438	1.72
	39.95	56.16	3.42	.46	0.00	0.00	100.00	
	4.88	6.85	.42	.06	0.00	0.00	12.20	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.63

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JULY 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.54.47.

COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	5	1	0	0	0	0	6	1.21
	3.82	.76	0.00	0.00	0.00	0.00	4.58	
	.14	.03	0.00	0.00	0.00	0.00	.17	
NE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ENE	1	1	0	0	0	0	2	1.41
	.76	.76	0.00	0.00	0.00	0.00	1.53	
	.03	.03	0.00	0.00	0.00	0.00	.06	
E	1	0	0	0	0	0	1	1.11
	.76	0.00	0.00	0.00	0.00	0.00	.76	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
ESE	4	1	0	0	0	0	5	1.26
	3.05	.76	0.00	0.00	0.00	0.00	3.82	
	.11	.03	0.00	0.00	0.00	0.00	.14	
SE	4	2	0	0	0	0	6	1.41
	3.05	1.53	0.00	0.00	0.00	0.00	4.58	
	.11	.05	0.00	0.00	0.00	0.00	.17	
SSE	4	8	0	0	0	0	12	1.49
	3.05	6.11	0.00	0.00	0.00	0.00	9.16	
	.11	.22	0.00	0.00	0.00	0.00	.33	
S	16	4	0	0	0	0	20	1.19
	12.21	3.05	0.00	0.00	0.00	0.00	15.27	
	.45	.11	0.00	0.00	0.00	0.00	.56	
SSW	9	1	0	0	0	0	10	1.13
	6.87	.76	0.00	0.00	0.00	0.00	7.63	
	.25	.03	0.00	0.00	0.00	0.00	.28	
SW	7	8	0	0	0	0	15	1.67
	5.34	6.11	0.00	0.00	0.00	0.00	11.45	
	.20	.22	0.00	0.00	0.00	0.00	.42	
WSW	7	1	1	0	0	0	9	1.49
	5.34	.76	.76	0.00	0.00	0.00	6.87	
	.20	.03	.03	0.00	0.00	0.00	.25	
W	4	0	0	0	0	0	4	.66
	3.05	0.00	0.00	0.00	0.00	0.00	3.05	
	.11	0.00	0.00	0.00	0.00	0.00	.11	
WNW	6	1	0	0	0	0	7	1.04
	4.58	.76	0.00	0.00	0.00	0.00	5.34	
	.17	.03	0.00	0.00	0.00	0.00	.20	
NW	6	0	0	0	0	0	6	.96
	4.58	0.00	0.00	0.00	0.00	0.00	4.58	
	.17	0.00	0.00	0.00	0.00	0.00	.17	
NNW	5	1	0	0	0	0	6	1.28
	3.82	.76	0.00	0.00	0.00	0.00	4.58	
	.14	.03	0.00	0.00	0.00	0.00	.17	
N	10	4	0	0	0	0	14	1.29
	7.63	3.05	0.00	0.00	0.00	0.00	10.69	
	.28	.11	0.00	0.00	0.00	0.00	.39	
CALM	8						8	CALM
	6.11						6.11	
	.22						.22	
TOTAL	97	33	1	0	0	0	131	1.21
	74.05	25.19	.76	0.00	0.00	0.00	100.00	
	2.70	.92	.03	0.00	0.00	0.00	3.65	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.64

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: JULY 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.54.47.

COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES METERS PER SECOND 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	29 .81	69 1.92	87 2.42	23 .64	2 .06	0 0.00	210 5.85	3.19
NE	27 .75	64 1.78	24 .67	1 .03	0 0.00	0 0.00	116 3.23	2.27
ENE	18 .50	45 1.25	2 .06	0 0.00	0 0.00	0 0.00	65 1.81	1.41
E	28 .78	36 1.00	9 .25	1 .03	0 0.00	0 0.00	74 2.06	2.05
ESE	22 .61	59 1.64	25 .70	2 .06	1 .03	0 0.00	109 3.04	2.46
SE	38 1.06	100 2.79	73 2.03	12 .33	0 0.00	0 0.00	223 6.21	2.73
SSE	41 1.14	211 5.88	194 5.41	41 1.14	2 .06	0 0.00	489 13.62	3.12
S	55 1.53	259 7.22	225 6.27	117 3.26	21 .59	3 .08	680 18.95	3.60
SSW	38 1.06	163 4.54	159 4.43	70 1.95	17 .47	8 .22	455 12.68	3.71
SW	36 1.00	91 2.54	110 3.06	28 .78	17 .47	1 .03	283 7.89	3.51
WSW	27 .75	53 1.48	39 1.09	3 .08	0 0.00	0 0.00	122 3.40	2.51
W	27 .75	35 .98	20 .56	1 .03	0 0.00	0 0.00	83 2.31	2.26
WNW	19 .53	32 .89	17 .47	5 .14	0 0.00	0 0.00	73 2.03	2.48
NW	20 .56	20 .56	29 .81	4 .11	1 .03	0 0.00	74 2.06	2.79
NNW	30 .84	47 1.31	33 .92	11 .31	4 .11	0 0.00	125 3.48	2.89
N	48 1.34	95 2.65	129 3.59	57 1.59	10 .28	0 0.00	339 9.45	3.51
CALM	69 1.92						69 1.92	CALM
TOTAL	572 15.94	1379 38.42	1175 32.74	376 10.48	75 2.09	12 .33	3589 100.00	3.11

NUMBER OF VALID OBSERVATIONS	3589	80.40 PCT.
NUMBER OF INVALID OBSERVATIONS	875	19.60 PCT.
TOTAL NUMBER OF OBSERVATIONS	4464	100.00 PCT.

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES

TABLE 2.65

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: AUGUST 1976 - 1995

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/97. 11.57.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	4	19	41	5	0	0	69	3.35
	.43	2.05	4.41	.54	0.00	0.00	7.43	
	.11	.55	1.18	.14	0.00	0.00	1.98	
NE	7	13	9	1	0	0	30	2.73
	.75	1.40	.97	.11	0.00	0.00	3.23	
	.20	.37	.26	.03	0.00	0.00	.86	
ENE	7	15	12	0	0	0	34	2.67
	.75	1.61	1.29	0.00	0.00	0.00	3.66	
	.20	.43	.34	0.00	0.00	0.00	.98	
E	1	14	8	1	0	0	24	2.87
	.11	1.51	.86	.11	0.00	0.00	2.58	
	.03	.40	.23	.03	0.00	0.00	.69	
ESE	2	10	4	1	0	0	17	2.86
	.22	1.08	.43	.11	0.00	0.00	1.83	
	.06	.29	.11	.03	0.00	0.00	.49	
SE	4	25	16	8	1	0	54	3.44
	.43	2.69	1.72	.86	.11	0.00	5.81	
	.11	.72	.46	.23	.03	0.00	1.55	
SSE	0	17	48	31	5	0	101	4.52
	0.00	1.83	5.17	3.34	.54	0.00	10.87	
	0.00	.49	1.38	.89	.14	0.00	2.90	
S	4	17	80	44	4	0	149	4.45
	.43	1.83	8.61	4.74	.43	0.00	16.04	
	.11	.49	2.30	1.26	.11	0.00	4.28	
SSW	3	15	58	27	1	1	105	4.33
	.32	1.61	6.24	2.91	.11	.11	11.30	
	.09	.43	1.67	.78	.03	.03	3.02	
SW	3	16	26	35	5	0	85	4.75
	.32	1.72	2.80	3.77	.54	0.00	9.15	
	.09	.46	.75	1.01	.14	0.00	2.44	
WSW	6	9	9	1	0	0	25	2.78
	.65	.97	.97	.11	0.00	0.00	2.69	
	.17	.26	.26	.03	0.00	0.00	.72	
W	3	9	5	0	0	0	17	2.36
	.32	.97	.54	0.00	0.00	0.00	1.83	
	.09	.26	.14	0.00	0.00	0.00	.49	
WNW	2	7	3	2	0	0	14	2.92
	.22	.75	.32	.22	0.00	0.00	1.51	
	.06	.20	.09	.06	0.00	0.00	.40	
NW	2	9	12	19	1	0	43	4.55
	.22	.97	1.29	2.05	.11	0.00	4.63	
	.06	.26	.34	.55	.03	0.00	1.24	
NNW	3	14	13	20	9	0	59	4.65
	.32	1.51	1.40	2.15	.97	0.00	6.35	
	.09	.40	.37	.57	.26	0.00	1.69	
N	3	26	35	18	1	0	83	3.80
	.32	2.80	3.77	1.94	.11	0.00	8.93	
	.09	.75	1.01	.52	.03	0.00	2.38	
CALM	20						20	CALM
	2.15						2.15	
	.57						.57	
TOTAL	74	235	379	213	27	1	929	3.90
	7.97	25.30	40.80	22.93	2.91	.11	100.00	
	2.13	6.75	10.89	6.12	.78	.03	26.69	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.66

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: AUGUST 1973 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.57.26.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	0	4	0	0	0	4	3.56
	0.00	0.00	2.52	0.00	0.00	0.00	2.52	
	0.00	0.00	.11	0.00	0.00	0.00	.11	
NE	1	1	3	0	0	0	5	2.72
	.63	.63	1.89	0.00	0.00	0.00	3.14	
	.03	.03	.09	0.00	0.00	0.00	.14	
ENE	1	2	2	0	0	0	5	2.66
	.63	1.26	1.26	0.00	0.00	0.00	3.14	
	.03	.06	.06	0.00	0.00	0.00	.14	
E	0	1	1	0	0	0	2	2.63
	0.00	.63	.63	0.00	0.00	0.00	1.26	
	0.00	.03	.03	0.00	0.00	0.00	.06	
ESE	0	2	1	0	0	0	3	2.89
	0.00	1.26	.63	0.00	0.00	0.00	1.89	
	0.00	.06	.03	0.00	0.00	0.00	.09	
SE	1	5	11	1	0	0	18	3.18
	.63	3.14	6.92	.63	0.00	0.00	11.32	
	.03	.14	.32	.03	0.00	0.00	.52	
SSE	1	5	11	5	1	0	24	4.10
	.63	3.14	6.92	3.77	.63	0.00	15.09	
	.03	.14	.32	.17	.03	0.00	.69	
S	2	5	13	10	0	0	30	4.18
	1.26	3.14	8.18	6.29	0.00	0.00	18.87	
	.06	.14	.37	.29	0.00	0.00	.86	
SSW	0	2	12	10	1	0	25	4.80
	0.00	1.26	7.55	6.29	.63	0.00	15.72	
	0.00	.06	.34	.29	.03	0.00	.72	
SW	1	0	5	2	1	0	9	4.51
	.63	0.00	3.14	1.26	.63	0.00	5.66	
	.03	0.00	.14	.06	.03	0.00	.26	
WSW	2	6	0	0	0	0	8	2.12
	1.26	3.77	0.00	0.00	0.00	0.00	5.03	
	.06	.17	0.00	0.00	0.00	0.00	.23	
W	1	5	1	0	0	0	7	2.34
	.63	3.14	.63	0.00	0.00	0.00	4.40	
	.03	.14	.03	0.00	0.00	0.00	.20	
WNW	0	2	0	0	0	0	2	2.17
	0.00	1.26	0.00	0.00	0.00	0.00	1.26	
	0.00	.06	0.00	0.00	0.00	0.00	.06	
NW	0	0	2	1	0	0	3	4.98
	0.00	0.00	1.26	.63	0.00	0.00	1.89	
	0.00	0.00	.06	.03	0.00	0.00	.09	
NNW	1	2	2	1	0	0	6	3.10
	.63	1.26	1.26	.63	0.00	0.00	3.77	
	.03	.06	.06	.03	0.00	0.00	.17	
N	1	2	5	0	0	0	8	3.05
	.63	1.26	3.14	0.00	0.00	0.00	5.03	
	.03	.06	.14	0.00	0.00	0.00	.23	
CALM	0						0	CALM
	0.00						0.00	
	0.00						0.00	
TOTAL	12	40	73	31	3	0	159	3.73
	7.55	25.16	45.91	19.50	1.89	0.00	100.00	
	.34	1.15	2.10	.89	.09	0.00	4.57	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.67

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: AUGUST 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.57.26.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
BAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES/METERS PER SECOND 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	8	6	0	0	0	14	2.81
	0.00	4.85	3.64	0.00	0.00	0.00	8.48	
	0.00	.23	.17	0.00	0.00	0.00	.40	
NE	3	2	3	0	0	0	8	2.32
	1.82	1.21	1.82	0.00	0.00	0.00	4.85	
	.09	.06	.09	0.00	0.00	0.00	.23	
ENE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
E	1	4	1	0	0	0	6	2.37
	.61	2.42	.61	0.00	0.00	0.00	3.64	
	.03	.11	.03	0.00	0.00	0.00	.17	
ESE	1	1	3	0	0	0	5	3.13
	.61	.61	1.82	0.00	0.00	0.00	3.03	
	.03	.03	.09	0.00	0.00	0.00	.14	
SE	2	13	11	5	1	0	31	3.52
	1.21	7.27	6.67	3.03	.61	0.00	18.79	
	.06	.34	.32	.14	.03	0.00	.89	
SSE	0	4	4	5	0	0	13	3.99
	0.00	2.42	5.45	3.03	0.00	0.00	10.91	
	0.00	.11	.25	.14	0.00	0.00	.52	
S	1	8	13	8	1	0	31	4.21
	.61	4.85	7.88	4.85	.61	0.00	18.79	
	.03	.23	.37	.23	.03	0.00	.89	
SSW	1	3	7	9	0	0	20	4.40
	.61	1.82	4.24	5.45	0.00	0.00	12.12	
	.03	.09	.20	.26	0.00	0.00	.57	
SW	1	1	6	0	0	0	8	3.27
	.61	.61	3.64	0.00	0.00	0.00	4.85	
	.03	.03	.17	0.00	0.00	0.00	.23	
WSW	1	1	0	0	0	0	2	1.71
	.61	.61	0.00	0.00	0.00	0.00	1.21	
	.03	.03	0.00	0.00	0.00	0.00	.06	
W	0	2	0	0	0	0	2	2.36
	0.00	1.21	0.00	0.00	0.00	0.00	1.21	
	0.00	.06	0.00	0.00	0.00	0.00	.06	
WNW	2	1	0	0	0	0	3	1.43
	1.21	.61	0.00	0.00	0.00	0.00	1.82	
	.06	.03	0.00	0.00	0.00	0.00	.09	
NW	0	0	0	1	0	0	1	6.05
	0.00	0.00	0.00	.61	0.00	0.00	.61	
	0.00	0.00	0.00	.03	0.00	0.00	.03	
NNW	0	1	3	0	0	0	4	3.47
	0.00	.61	1.82	0.00	0.00	0.00	2.42	
	0.00	.03	.09	0.00	0.00	0.00	.11	
N	1	5	2	1	1	0	10	3.35
	.61	3.03	1.21	.61	.61	0.00	6.06	
	.03	.14	.06	.03	.03	0.00	.29	
CALM	2						2	CALM
	1.21						1.21	
	.06						.06	
TOTAL	16	53	64	29	3	0	165	3.51
	9.70	32.12	38.79	17.58	1.82	0.00	100.00	
	.46	1.52	1.84	.83	.09	0.00	4.74	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.68

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: AUGUST 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.17.29.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
NAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1	32	31	3	1	0	68	3.18
	.14	4.63	4.49	.43	.14	0.00	9.84	
	.03	.92	.89	.09	.03	0.00	1.95	
NE	4	23	20	1	0	0	48	2.88
	.58	3.33	2.89	.14	0.00	0.00	6.95	
	.11	.66	.57	.03	0.00	0.00	1.38	
ENE	2	25	5	0	0	0	32	2.42
	.29	3.62	.72	0.00	0.00	0.00	4.63	
	.06	.72	.14	0.00	0.00	0.00	.92	
E	3	15	9	0	0	0	27	2.60
	.43	2.17	1.30	0.00	0.00	0.00	3.91	
	.09	.43	.26	0.00	0.00	0.00	.78	
ESE	8	21	28	2	0	0	59	2.96
	1.16	3.04	4.05	.29	0.00	0.00	8.54	
	.23	.60	.80	.06	0.00	0.00	1.69	
SE	2	34	49	9	0	0	94	3.55
	.29	4.92	7.09	1.30	0.00	0.00	13.60	
	.06	.98	1.41	.26	0.00	0.00	2.70	
SSE	4	18	31	10	0	0	63	3.57
	.58	2.60	4.49	1.45	0.00	0.00	9.12	
	.11	.52	.89	.29	0.00	0.00	1.81	
S	4	26	46	16	0	0	92	3.70
	.58	3.76	6.66	2.32	0.00	0.00	13.31	
	.11	.75	1.32	.46	0.00	0.00	2.64	
SSW	3	15	19	13	0	0	50	3.89
	.43	2.17	2.75	1.88	0.00	0.00	7.24	
	.09	.43	.55	.37	0.00	0.00	1.44	
SW	0	9	5	4	0	0	18	3.61
	0.00	1.30	.72	.58	0.00	0.00	2.60	
	0.00	.26	.14	.11	0.00	0.00	.52	
WSW	0	7	3	0	0	0	10	2.65
	0.00	1.01	.43	0.00	0.00	0.00	1.45	
	0.00	.20	.09	0.00	0.00	0.00	.29	
W	2	4	1	0	0	0	7	2.21
	.29	.58	.14	0.00	0.00	0.00	1.01	
	.06	.11	.03	0.00	0.00	0.00	.20	
WNW	3	7	1	0	0	0	11	2.10
	.43	1.01	.14	0.00	0.00	0.00	1.59	
	.09	.20	.03	0.00	0.00	0.00	.32	
NW	3	6	8	2	1	0	20	3.30
	.43	.87	1.16	.29	.14	0.00	2.89	
	.09	.17	.23	.06	.03	0.00	.57	
NNW	1	11	16	0	0	0	28	3.06
	.14	1.59	2.32	0.00	0.00	0.00	4.05	
	.03	.32	.46	0.00	0.00	0.00	.80	
N	1	40	20	2	1	0	54	2.97
	.14	4.34	2.89	.29	.14	0.00	7.81	
	.03	.86	.57	.06	.03	0.00	1.55	
CALM	10						10	CALM
	1.45						1.45	
	.29						.29	
TOTAL	51	283	292	62	3	0	691	3.21
	7.38	40.96	42.26	8.97	.43	0.00	100.00	
	1.47	8.13	8.39	1.78	.09	0.00	19.85	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.69

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: AUGUST 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.57.26.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	7	20	9	0	0	0	36	2.31
	.69	1.97	.89	0.00	0.00	0.00	3.55	
	.20	.57	.26	0.00	0.00	0.00	1.03	
NE	12	42	0	0	0	0	54	1.87
	1.18	4.14	0.00	0.00	0.00	0.00	5.33	
	.34	1.21	0.00	0.00	0.00	0.00	1.55	
ENE	9	28	2	0	0	0	39	1.98
	.89	2.76	.20	0.00	0.00	0.00	3.85	
	.26	.80	.06	0.00	0.00	0.00	1.12	
E	11	26	1	0	0	0	38	1.87
	1.08	2.56	.10	0.00	0.00	0.00	3.75	
	.32	.75	.03	0.00	0.00	0.00	1.09	
ESE	1	22	4	0	0	0	27	2.42
	.10	2.17	.39	0.00	0.00	0.00	2.66	
	.03	.63	.11	0.00	0.00	0.00	.78	
SE	11	66	37	1	0	0	115	2.61
	1.08	6.51	3.65	.10	0.00	0.00	11.34	
	.32	1.90	1.06	.03	0.00	0.00	3.30	
SSE	14	77	70	5	0	0	166	2.93
	1.38	7.59	6.90	.49	0.00	0.00	16.37	
	.40	2.21	2.01	.14	0.00	0.00	4.77	
S	20	113	78	7	0	0	218	2.82
	1.97	11.14	7.69	.69	0.00	0.00	21.50	
	.57	3.25	2.24	.20	0.00	0.00	6.26	
SSW	5	57	50	4	0	0	116	3.02
	.49	5.62	4.93	.39	0.00	0.00	11.44	
	.14	1.64	1.44	.11	0.00	0.00	3.33	
SW	3	20	11	1	1	0	36	3.01
	.30	1.97	1.08	.10	0.00	.10	3.55	
	.09	.57	.32	.03	0.00	.03	1.03	
WSW	3	6	3	1	0	0	13	2.52
	.30	.59	.30	.10	0.00	0.00	1.28	
	.09	.17	.09	.03	0.00	0.00	.37	
W	10	4	0	0	0	0	14	1.36
	.99	.39	0.00	0.00	0.00	0.00	1.38	
	.29	.11	0.00	0.00	0.00	0.00	.40	
WNW	3	6	2	0	0	0	11	2.16
	.30	.59	.20	0.00	0.00	0.00	1.08	
	.09	.17	.06	0.00	0.00	0.00	.32	
NW	5	9	7	0	0	0	21	2.48
	.49	.89	.69	0.00	0.00	0.00	2.07	
	.14	.26	.20	0.00	0.00	0.00	.60	
NNW	8	14	6	0	0	0	28	2.22
	.79	1.38	.59	0.00	0.00	0.00	2.76	
	.23	.40	.17	0.00	0.00	0.00	.80	
N	25	37	4	1	0	0	67	1.89
	2.47	3.65	.39	.10	0.00	0.00	6.61	
	.73	1.06	.11	.03	0.00	0.00	1.92	
CALM	15						15	CALM
	1.48						1.48	
	.43						.43	
TOTAL	162	547	284	20	0	1	1014	2.54
	15.98	53.94	28.01	1.97	0.00	.10	100.00	
	4.65	15.71	8.16	.57	0.00	.03	29.13	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.70

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: AUGUST 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.57.26.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
BAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	4	7	0	0	0	0	11	3.59
	.94	1.64	0.00	0.00	0.00	0.00	2.58	
	.11	.20	0.00	0.00	0.00	0.00	.32	
NE	5	8	0	0	0	0	13	1.56
	1.17	1.88	0.00	0.00	0.00	0.00	3.05	
	.14	.23	0.00	0.00	0.00	0.00	.37	
ENE	2	5	0	0	0	0	7	1.75
	.47	1.17	0.00	0.00	0.00	0.00	1.64	
	.06	.14	0.00	0.00	0.00	0.00	.20	
E	3	3	1	0	0	0	7	1.72
	.70	.70	.23	0.00	0.00	0.00	1.64	
	.09	.09	.03	0.00	0.00	0.00	.20	
ESE	4	4	1	0	0	0	9	1.63
	.94	.94	.23	0.00	0.00	0.00	2.11	
	.11	.11	.03	0.00	0.00	0.00	.26	
SE	11	9	2	0	0	0	22	1.70
	2.58	2.11	.47	0.00	0.00	0.00	5.16	
	.32	.26	.06	0.00	0.00	0.00	.63	
SSE	10	35	0	1	0	0	46	1.78
	2.35	8.45	0.00	0.00	0.00	0.00	10.80	
	.29	1.03	0.00	0.00	0.00	0.00	1.32	
S	17	63	12	1	0	0	93	2.09
	3.99	14.79	2.82	.23	0.00	0.00	21.83	
	.49	1.81	.34	.03	0.00	0.00	2.67	
SSW	10	62	8	0	0	0	80	2.14
	2.35	14.55	1.88	0.00	0.00	0.00	18.78	
	.29	1.78	.23	0.00	0.00	0.00	2.30	
SW	8	30	6	0	0	0	44	2.24
	1.88	7.04	1.41	0.00	0.00	0.00	10.33	
	.23	.86	.17	0.00	0.00	0.00	1.26	
WSW	7	7	0	0	0	0	14	1.65
	1.64	1.64	0.00	0.00	0.00	0.00	3.29	
	.20	.20	0.00	0.00	0.00	0.00	.40	
W	6	1	0	0	0	0	7	1.08
	1.41	.23	0.00	0.00	0.00	0.00	1.64	
	.17	.03	0.00	0.00	0.00	0.00	.20	
WNW	2	2	2	0	0	0	6	2.08
	.47	.47	.47	0.00	0.00	0.00	1.41	
	.06	.06	.06	0.00	0.00	0.00	.17	
NW	7	7	0	0	0	0	14	1.50
	1.64	1.64	0.00	0.00	0.00	0.00	3.29	
	.20	.20	0.00	0.00	0.00	0.00	.40	
NNW	10	9	3	0	0	0	22	1.86
	2.35	2.11	.70	0.00	0.00	0.00	5.16	
	.29	.26	.09	0.00	0.00	0.00	.63	
N	10	6	0	0	0	0	16	1.42
	2.35	1.41	0.00	0.00	0.00	0.00	3.76	
	.29	.17	0.00	0.00	0.00	0.00	.46	
CALM	15						15	CALM
	3.52						3.52	
	.43						.43	
TOTAL	131	259	35	1	0	0	426	1.85
	30.75	60.80	8.22	.23	0.00	0.00	100.00	
	3.76	7.44	1.01	.03	0.00	0.00	12.24	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.71

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: AUGUST 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.57.26.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	5	0	0	0	0	0	5	1.20
	5.15	0.00	0.00	0.00	0.00	0.00	5.15	
	.14	0.00	0.00	0.00	0.00	0.00	.14	
NE	1	0	0	0	0	0	1	.79
	1.03	0.00	0.00	0.00	0.00	0.00	1.03	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
ENE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
E	1	2	0	0	0	0	3	1.58
	1.03	2.06	0.00	0.00	0.00	0.00	3.09	
	.03	.06	0.00	0.00	0.00	0.00	.09	
ESE	6	1	0	0	0	0	7	1.34
	6.19	1.03	0.00	0.00	0.00	0.00	7.22	
	.17	.03	0.00	0.00	0.00	0.00	.20	
SE	2	3	0	0	0	0	5	1.55
	2.06	3.09	0.00	0.00	0.00	0.00	5.15	
	.06	.09	0.00	0.00	0.00	0.00	.14	
SSE	1	5	0	0	0	0	6	1.96
	1.03	5.15	0.00	0.00	0.00	0.00	6.19	
	.03	.14	0.00	0.00	0.00	0.00	.17	
S	5	10	0	0	0	0	15	1.74
	5.15	10.31	0.00	0.00	0.00	0.00	15.46	
	.14	.29	0.00	0.00	0.00	0.00	.43	
SSW	3	8	0	0	0	0	11	1.86
	3.09	8.25	0.00	0.00	0.00	0.00	11.34	
	.09	.23	0.00	0.00	0.00	0.00	.32	
SW	3	4	1	0	0	0	8	1.90
	3.09	4.12	1.03	0.00	0.00	0.00	8.25	
	.09	.11	.03	0.00	0.00	0.00	.23	
WSW	5	2	0	0	0	0	7	1.51
	5.15	2.06	0.00	0.00	0.00	0.00	7.22	
	.14	.06	0.00	0.00	0.00	0.00	.20	
W	1	1	0	0	0	0	2	1.49
	1.03	1.03	0.00	0.00	0.00	0.00	2.06	
	.03	.03	0.00	0.00	0.00	0.00	.06	
WNW	1	0	0	0	0	0	1	.45
	1.03	0.00	0.00	0.00	0.00	0.00	1.03	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
NW	1	0	0	0	0	0	1	1.34
	1.03	0.00	0.00	0.00	0.00	0.00	1.03	
	.03	0.00	0.00	0.00	0.00	0.00	.03	
NNW	4	0	0	0	0	0	4	1.12
	4.12	0.00	0.00	0.00	0.00	0.00	4.12	
	.11	0.00	0.00	0.00	0.00	0.00	.11	
N	5	5	0	0	0	0	10	1.46
	5.15	5.15	0.00	0.00	0.00	0.00	10.31	
	.14	.14	0.00	0.00	0.00	0.00	.29	
CALM	11						11	CALM
	11.34						11.34	
	.32						.32	
TOTAL	55	41	1	0	0	0	97	1.41
	56.70	42.27	1.03	0.00	0.00	0.00	100.00	
	1.58	1.18	.03	0.00	0.00	0.00	2.79	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.72

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: AUGUST 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 11.57.25.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	21 .60	86 2.47	91 2.61	8 .23	1 .03	0 0.00	207 5.95	2.94
NE	33 .95	89 2.56	35 1.01	2 .06	0 0.00	0 0.00	159 4.57	2.36
ENE	21 .60	75 2.15	21 .60	0 0.00	0 0.00	0 0.00	117 3.36	2.32
E	20 .57	65 1.87	21 .60	1 .03	0 0.00	0 0.00	107 3.07	2.30
ESE	22 .63	61 1.75	41 1.18	3 .09	0 0.00	0 0.00	127 3.65	2.65
SE	33 .95	154 4.42	126 3.62	24 .69	2 .06	0 0.00	339 9.74	3.05
SSE	30 .86	162 4.65	169 4.85	57 1.64	6 .17	0 0.00	424 12.18	3.39
S	53 1.52	242 6.95	242 6.95	86 2.47	5 .14	0 0.00	628 18.04	3.34
SSW	25 .72	162 4.65	154 4.42	63 1.81	2 .06	1 .03	407 11.69	3.44
SW	19 .55	80 2.30	60 1.72	42 1.21	6 .17	1 .03	208 5.98	3.64
WSW	24 .69	38 1.09	15 .43	2 .06	0 0.00	0 0.00	79 2.27	2.31
W	23 .66	26 .75	7 .20	0 0.00	0 0.00	0 0.00	56 1.61	1.90
WNW	13 .37	25 .72	8 .23	2 .06	0 0.00	0 0.00	48 1.38	2.28
NW	18 .52	31 .89	29 .83	23 .66	2 .06	0 0.00	103 2.96	3.47
NNW	27 .78	51 1.47	43 1.24	21 .60	9 .26	0 0.00	151 4.34	3.31
N	46 1.32	111 3.19	66 1.90	22 .63	3 .09	0 0.00	248 7.12	2.82
CALM	73 2.10						73 2.10	CALM
TOTAL	501 14.39	1458 41.88	1128 32.40	356 10.23	36 1.03	2 .06	3481 100.00	3.02

NUMBER OF VALID OBSERVATIONS 3481 77.98 PCT.
NUMBER OF INVALID OBSERVATIONS 983 22.02 PCT.
TOTAL NUMBER OF OBSERVATIONS 4464 100.00 PCT.

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES

TABLE 2.73

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: SEPTEMBER 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.08.08.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND): 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	4	9	24	16	1	0	54	4.15
	.53	1.20	3.19	2.13	.13	0.00	7.18	
	.11	.24	.65	.43	.03	0.00	1.45	
NE	4	10	11	2	2	0	29	3.47
	.53	1.33	1.46	.27	.27	0.00	3.86	
	.11	.27	.30	.05	.05	0.00	.74	
ENE	0	8	6	2	0	0	16	3.48
	0.00	1.06	.80	.27	0.00	0.00	2.13	
	0.00	.22	.16	.05	0.00	0.00	.43	
E	0	3	1	0	0	0	4	2.61
	0.00	.40	.13	0.00	0.00	0.00	.53	
	0.00	.08	.03	0.00	0.00	0.00	.11	
ESE	1	8	5	0	0	0	14	2.76
	.13	1.06	.66	0.00	0.00	0.00	1.86	
	.03	.22	.13	0.00	0.00	0.00	.38	
SE	1	10	6	0	0	0	17	2.73
	.13	1.33	.80	0.00	0.00	0.00	2.26	
	.03	.27	.16	0.00	0.00	0.00	.46	
SSE	0	10	32	2	1	0	45	3.64
	0.00	1.33	4.26	.27	.13	0.00	5.98	
	0.00	.27	.86	.05	.03	0.00	1.21	
S	4	11	40	34	10	1	100	4.79
	.53	1.46	5.32	4.52	1.33	.13	13.30	
	.11	.30	1.08	.91	.27	.03	2.69	
SSW	1	13	30	38	15	9	98	5.93
	.13	1.73	3.99	3.99	1.99	1.20	13.03	
	.03	.35	.81	.81	.40	.24	2.64	
SW	0	17	25	28	8	0	79	4.76
	0.00	2.26	3.46	3.72	1.06	0.00	10.51	
	0.00	.46	.70	.75	.22	0.00	2.12	
WSW	1	13	15	9	0	0	38	3.66
	.13	1.73	1.99	1.20	0.00	0.00	5.05	
	.03	.35	.40	.24	0.00	0.00	1.02	
W	0	13	12	7	0	0	32	3.73
	0.00	1.73	1.60	.93	0.00	0.00	4.26	
	0.00	.35	.32	.19	0.00	0.00	.86	
WNW	3	2	18	9	0	0	32	4.13
	.40	.27	2.39	1.20	0.00	0.00	4.26	
	.08	.05	.48	.24	0.00	0.00	.86	
NW	3	8	17	3	1	1	33	3.73
	.40	1.06	2.26	.40	.13	.13	4.39	
	.08	.22	.46	.08	.03	.03	.89	
NNW	2	13	29	14	2	2	62	4.46
	.27	1.73	3.86	1.86	.27	.27	8.24	
	.05	.35	.78	.38	.05	.05	1.67	
N	5	23	25	36	3	0	92	4.33
	.66	3.06	3.32	4.79	.40	0.00	12.23	
	.13	.62	.67	.97	.08	0.00	2.47	
CALM	7						7	CALM
	.93						.93	
	.19						.19	
TOTAL	36	171	297	192	43	13	752	4.34
	4.79	22.74	39.49	25.53	5.72	1.73	100.00	
	.97	4.60	7.99	5.16	1.16	.35	20.23	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.74

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: SEPTEMBER 1970 - 1975

STABILITY CLASS: PASQUILL H
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.00.08.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1	3	2	2	2	0	10	4.52
	.83	2.48	1.65	1.65	1.65	0.00	8.26	
	.03	.08	.05	.05	.05	0.00	.27	
NE	0	1	0	1	2	0	4	6.26
	0.00	.83	0.00	.83	1.65	0.00	3.31	
	0.00	.03	0.00	.03	.05	0.00	.11	
ENE	0	0	1	0	0	0	1	3.58
	0.00	0.00	.83	0.00	0.00	0.00	.83	
	0.00	0.00	.03	0.00	0.00	0.00	.03	
E	1	0	1	0	0	0	2	2.31
	.83	0.00	.83	0.00	0.00	0.00	1.65	
	.03	0.00	.03	0.00	0.00	0.00	.05	
ESE	0	0	2	0	0	0	2	3.97
	0.00	0.00	1.65	0.00	0.00	0.00	1.65	
	0.00	0.00	.05	0.00	0.00	0.00	.05	
SE	0	2	1	0	0	0	3	2.48
	0.00	1.65	.83	0.00	0.00	0.00	2.48	
	0.00	.05	.03	0.00	0.00	0.00	.08	
SSE	2	1	8	4	0	0	13	4.07
	1.65	.83	4.96	3.31	0.00	0.00	10.74	
	.05	.03	.16	.11	0.00	0.00	.35	
S	1	2	7	9	0	0	19	4.66
	.83	1.65	5.79	7.44	0.00	0.00	15.70	
	.03	.05	.19	.24	0.00	0.00	.51	
SSW	0	4	4	11	2	0	21	5.20
	0.00	3.31	3.31	9.09	1.65	0.00	17.36	
	0.00	.11	.11	.30	.05	0.00	.56	
SW	0	3	3	5	0	0	11	4.13
	0.00	2.48	2.48	4.13	0.00	0.00	9.09	
	0.00	.08	.08	.13	0.00	0.00	.30	
WSW	0	0	2	0	0	0	2	4.02
	0.00	0.00	1.65	0.00	0.00	0.00	1.65	
	0.00	0.00	.05	0.00	0.00	0.00	.05	
W	0	1	2	0	0	0	3	2.93
	0.00	.83	1.65	0.00	0.00	0.00	2.48	
	0.00	.03	.05	0.00	0.00	0.00	.08	
WNW	1	1	1	0	0	0	3	2.64
	.83	.83	.83	0.00	0.00	0.00	2.48	
	.03	.03	.03	0.00	0.00	0.00	.08	
NW	0	0	2	0	0	0	2	3.52
	0.00	0.00	1.65	0.00	0.00	0.00	1.65	
	0.00	0.00	.05	0.00	0.00	0.00	.05	
NNW	2	1	5	5	0	0	13	4.02
	1.65	.83	4.13	4.13	0.00	0.00	10.74	
	.05	.03	.13	.13	0.00	0.00	.35	
N	0	3	1	3	1	0	8	4.51
	0.00	2.48	.83	2.48	.83	0.00	6.61	
	0.00	.08	.03	.08	.03	0.00	.22	
CALM	4						4	CALM
	3.31						3.31	
	.11						.11	
TOTAL	12	22	40	40	7	0	121	4.22
	9.92	18.18	33.06	33.06	5.79	0.00	100.00	
	.32	.59	1.08	1.08	.19	0.00	3.25	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.75

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: SEPTEMBER 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.00.08.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	6	12	1	0	0	19	3.63
	0.00	3.82	7.64	.64	0.00	0.00	12.10	
	0.00	.16	.32	.03	0.00	0.00	.51	
NE	1	1	2	1	0	0	5	3.59
	.64	.64	1.27	.64	0.00	0.00	3.18	
	.03	.03	.05	.03	0.00	0.00	.13	
ENE	0	1	2	0	0	0	3	3.04
	0.00	.64	1.27	0.00	0.00	0.00	1.91	
	0.00	.03	.05	0.00	0.00	0.00	.08	
E	0	1	0	0	0	0	1	2.77
	0.00	.64	0.00	0.00	0.00	0.00	.64	
	0.00	.03	0.00	0.00	0.00	0.00	.03	
ESE	0	1	1	0	0	0	2	3.10
	0.00	.64	.64	0.00	0.00	0.00	1.27	
	0.00	.03	.03	0.00	0.00	0.00	.05	
SE	0	2	1	0	0	0	3	2.96
	0.00	1.27	.64	0.00	0.00	0.00	1.91	
	0.00	.05	.03	0.00	0.00	0.00	.08	
SSE	0	5	5	2	0	0	12	3.32
	0.00	3.18	3.18	1.27	0.00	0.00	7.64	
	0.00	.13	.13	.05	0.00	0.00	.32	
S	1	4	7	6	0	0	18	4.05
	.64	2.55	4.46	3.82	0.00	0.00	11.46	
	.03	.11	.19	.16	0.00	0.00	.48	
SSW	0	4	7	7	4	4	26	5.90
	0.00	2.55	4.46	4.46	2.55	2.55	16.56	
	0.00	.11	.19	.19	.11	.11	.70	
SW	0	1	4	1	1	0	7	5.25
	0.00	.64	2.55	.64	.64	0.00	4.46	
	0.00	.03	.11	.03	.03	0.00	.19	
WSW	0	2	4	1	0	0	7	3.88
	0.00	1.27	2.55	.64	0.00	0.00	4.46	
	0.00	.05	.11	.03	0.00	0.00	.19	
W	1	2	2	0	0	0	5	2.35
	.64	1.27	1.27	0.00	0.00	0.00	3.18	
	.03	.05	.05	0.00	0.00	0.00	.13	
WNW	1	0	1	0	0	0	2	2.33
	.64	0.00	.64	0.00	0.00	0.00	1.27	
	.03	0.00	.03	0.00	0.00	0.00	.05	
NW	0	0	1	1	0	0	2	4.72
	0.00	0.00	.64	.64	0.00	0.00	1.27	
	0.00	0.00	.03	.03	0.00	0.00	.05	
NNW	1	4	4	4	1	0	14	4.05
	.64	2.55	2.55	2.55	.64	0.00	8.92	
	.03	.11	.11	.11	.03	0.00	.38	
N	1	3	15	6	0	0	25	4.06
	.64	1.91	9.55	3.82	0.00	0.00	15.92	
	.03	.08	.40	.16	0.00	0.00	.67	
CALM	6						6	CALM
	3.82						3.82	
	.16						.16	
TOTAL	12	37	68	30	6	4	157	4.00
	7.64	23.57	43.31	19.11	3.82	2.55	100.00	
	.32	1.00	1.83	.81	.16	.11	4.22	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.77

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: SEPTEMBER 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.00.09.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	11	27	9	0	0	0	47	2.21
	1.22	2.98	.99	0.00	0.00	0.00	5.19	
	.30	.73	.24	0.00	0.00	0.00	1.26	
NE	5	16	4	0	0	0	25	2.20
	.55	1.77	.44	0.00	0.00	0.00	2.76	
	.13	.43	.11	0.00	0.00	0.00	.67	
ENE	6	17	3	0	0	0	26	2.15
	.66	1.88	.33	0.00	0.00	0.00	2.87	
	.16	.46	.08	0.00	0.00	0.00	.70	
E	7	18	2	0	0	0	27	1.96
	.77	1.99	.22	0.00	0.00	0.00	2.98	
	.19	.48	.05	0.00	0.00	0.00	.73	
ESE	18	14	1	0	0	0	33	1.51
	1.99	1.55	.11	0.00	0.00	0.00	3.65	
	.48	.38	.03	0.00	0.00	0.00	.89	
SE	13	29	7	0	0	0	49	2.17
	1.44	3.20	.77	0.00	0.00	0.00	5.41	
	.35	.78	.19	0.00	0.00	0.00	1.32	
SSE	17	35	53	0	0	0	105	2.75
	1.88	3.87	5.86	0.00	0.00	0.00	11.60	
	.46	.94	1.43	0.00	0.00	0.00	2.82	
S	10	82	110	2	0	0	204	3.06
	1.10	9.06	12.15	.22	0.00	0.00	22.54	
	.27	2.21	2.96	.05	0.00	0.00	5.49	
SSW	9	49	62	2	0	0	122	3.05
	.99	5.41	6.85	.22	0.00	0.00	13.48	
	.24	1.32	1.67	.05	0.00	0.00	3.28	
SW	9	29	38	0	0	0	76	2.92
	.99	3.20	4.20	0.00	0.00	0.00	8.40	
	.24	.78	1.02	0.00	0.00	0.00	2.04	
WSW	6	16	7	0	0	0	29	2.40
	.66	1.77	.77	0.00	0.00	0.00	3.20	
	.16	.43	.19	0.00	0.00	0.00	.78	
W	7	6	3	0	0	0	16	2.00
	.77	.66	.33	0.00	0.00	0.00	1.77	
	.19	.16	.08	0.00	0.00	0.00	.43	
WNW	1	4	4	0	0	0	9	2.77
	.11	.44	.44	0.00	0.00	0.00	.99	
	.03	.11	.11	0.00	0.00	0.00	.24	
NW	10	6	8	0	0	0	24	2.07
	1.10	.66	.88	0.00	0.00	0.00	2.65	
	.27	.16	.22	0.00	0.00	0.00	.65	
NNW	10	29	9	0	0	0	48	2.22
	1.10	3.20	.99	0.00	0.00	0.00	5.30	
	.27	.78	.24	0.00	0.00	0.00	1.29	
N	9	21	16	0	0	0	46	2.52
	.99	2.32	1.77	0.00	0.00	0.00	5.08	
	.24	.56	.43	0.00	0.00	0.00	1.24	
CALM	19						19	CALM
	2.10						2.10	
	.51						.51	
TOTAL	167	398	336	4	0	0	905	2.58
	18.45	43.98	37.13	.44	0.00	0.00	100.00	
	4.49	10.70	9.04	.11	0.00	0.00	24.34	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.77

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: SEPTEMBER 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.00.08.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	11	27	9	0	0	0	47	2.21
	1.22	2.98	.99	0.00	0.00	0.00	5.19	
	.30	.73	.24	0.00	0.00	0.00	1.26	
NE	5	16	4	0	0	0	25	2.20
	.55	1.77	.44	0.00	0.00	0.00	2.76	
	.13	.43	.11	0.00	0.00	0.00	.67	
ENE	6	17	3	0	0	0	26	2.15
	.66	1.88	.33	0.00	0.00	0.00	2.87	
	.16	.46	.08	0.00	0.00	0.00	.70	
E	7	18	2	0	0	0	27	1.96
	.77	1.99	.22	0.00	0.00	0.00	2.98	
	.19	.48	.05	0.00	0.00	0.00	.73	
ESE	18	14	1	0	0	0	33	1.51
	1.99	1.55	.11	0.00	0.00	0.00	3.65	
	.48	.38	.03	0.00	0.00	0.00	.89	
SE	13	29	7	0	0	0	49	2.17
	1.44	3.20	.77	0.00	0.00	0.00	5.41	
	.35	.78	.19	0.00	0.00	0.00	1.32	
SSE	17	35	53	0	0	0	105	2.75
	1.88	3.87	5.86	0.00	0.00	0.00	11.60	
	.46	.94	1.43	0.00	0.00	0.00	2.82	
S	10	82	110	2	0	0	204	3.06
	1.10	9.06	12.15	.22	0.00	0.00	22.54	
	.27	2.21	2.96	.05	0.00	0.00	5.49	
SSW	9	49	62	2	0	0	122	3.05
	.99	5.41	6.85	.22	0.00	0.00	13.48	
	.24	1.32	1.67	.05	0.00	0.00	3.28	
SW	9	29	38	0	0	0	76	2.92
	.99	3.20	4.20	0.00	0.00	0.00	8.40	
	.24	.78	1.02	0.00	0.00	0.00	2.04	
WSW	6	16	7	0	0	0	29	2.40
	.66	1.77	.77	0.00	0.00	0.00	3.20	
	.16	.43	.19	0.00	0.00	0.00	.78	
W	7	6	3	0	0	0	16	2.00
	.77	.66	.33	0.00	0.00	0.00	1.77	
	.19	.16	.08	0.00	0.00	0.00	.43	
WNW	1	4	4	0	0	0	9	2.77
	.11	.44	.44	0.00	0.00	0.00	.99	
	.03	.11	.11	0.00	0.00	0.00	.24	
NW	10	6	8	0	0	0	24	2.07
	1.10	.66	.88	0.00	0.00	0.00	2.65	
	.27	.16	.22	0.00	0.00	0.00	.65	
NNW	10	29	9	0	0	0	48	2.22
	1.10	3.20	.99	0.00	0.00	0.00	5.30	
	.27	.78	.24	0.00	0.00	0.00	1.29	
N	9	21	16	0	0	0	46	2.52
	.99	2.32	1.77	0.00	0.00	0.00	5.08	
	.24	.56	.43	0.00	0.00	0.00	1.24	
CALM	19						19	CALM
	2.10						2.10	
	.51						.51	
TOTAL	167	398	336	4	0	0	905	2.58
	18.45	43.98	37.13	.44	0.00	0.00	100.00	
	4.49	10.70	9.04	.11	0.00	0.00	24.34	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.78

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: SEPTEMBER 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.00.08.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	8	3	0	0	0	0	11	1.37
	2.27	.85	0.00	0.00	0.00	0.00	3.12	
	.22	.08	0.00	0.00	0.00	0.00	.30	
NE	0	6	0	0	0	0	6	2.09
	0.00	1.70	0.00	0.00	0.00	0.00	1.70	
	0.00	.16	0.00	0.00	0.00	0.00	.16	
ENE	1	1	0	0	0	0	2	1.48
	.28	.28	0.00	0.00	0.00	0.00	.57	
	.03	.03	0.00	0.00	0.00	0.00	.05	
E	0	2	0	0	0	0	2	1.94
	0.00	.57	0.00	0.00	0.00	0.00	.57	
	0.00	.05	0.00	0.00	0.00	0.00	.05	
ESE	1	2	0	0	0	0	3	1.82
	.28	.57	0.00	0.00	0.00	0.00	.85	
	.03	.05	0.00	0.00	0.00	0.00	.08	
SE	4	9	0	0	0	0	13	1.78
	1.14	2.56	0.00	0.00	0.00	0.00	3.69	
	.11	.24	0.00	0.00	0.00	0.00	.35	
SSE	2	24	2	0	0	0	28	2.24
	.57	6.82	.57	0.00	0.00	0.00	7.95	
	.05	.65	.05	0.00	0.00	0.00	.75	
S	12	47	9	0	0	0	68	2.13
	3.41	13.35	2.56	0.00	0.00	0.00	19.32	
	.32	1.26	.24	0.00	0.00	0.00	1.83	
SSW	3	50	4	0	0	0	57	2.14
	.85	14.20	1.14	0.00	0.00	0.00	16.19	
	.08	1.34	.11	0.00	0.00	0.00	1.53	
SW	9	43	13	0	0	0	65	2.28
	2.56	12.22	3.69	0.00	0.00	0.00	18.47	
	.24	1.16	.35	0.00	0.00	0.00	1.75	
WSW	5	12	1	0	0	0	18	1.92
	1.42	3.41	.28	0.00	0.00	0.00	5.11	
	.13	.32	.03	0.00	0.00	0.00	.48	
W	5	9	1	0	0	0	15	1.63
	1.42	2.56	.28	0.00	0.00	0.00	4.26	
	.13	.24	.03	0.00	0.00	0.00	.40	
WNW	5	3	0	0	0	0	8	1.20
	1.42	.85	0.00	0.00	0.00	0.00	2.27	
	.13	.08	0.00	0.00	0.00	0.00	.22	
NW	2	2	1	0	0	0	5	1.69
	.57	.57	.28	0.00	0.00	0.00	1.42	
	.05	.05	.03	0.00	0.00	0.00	.13	
NNW	8	5	0	0	0	0	13	1.33
	2.27	1.42	0.00	0.00	0.00	0.00	3.69	
	.22	.13	0.00	0.00	0.00	0.00	.35	
N	12	9	0	0	0	0	21	1.48
	3.41	2.56	0.00	0.00	0.00	0.00	5.97	
	.32	.24	0.00	0.00	0.00	0.00	.56	
CALM	17						17	CALM
	4.83						4.83	
	.46						.46	
TOTAL	94	227	31	0	0	0	352	1.89
	26.70	64.49	8.81	0.00	0.00	0.00	100.00	
	2.53	6.11	.83	0.00	0.00	0.00	9.47	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.79

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: SEPTEMBER 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.00.08.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-031-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	7	0	0	0	0	0	7	1.25
	3.21	0.00	0.00	0.00	0.00	0.00	3.21	
	.19	0.00	0.00	0.00	0.00	0.00	.19	
NE	0	1	0	0	0	0	1	1.58
	0.00	.46	0.00	0.00	0.00	0.00	.46	
	0.00	.03	0.00	0.00	0.00	0.00	.03	
ENE	1	1	0	0	0	0	2	1.55
	.46	.46	0.00	0.00	0.00	0.00	.92	
	.03	.03	0.00	0.00	0.00	0.00	.05	
E	1	1	0	0	0	0	2	1.49
	.46	.46	0.00	0.00	0.00	0.00	.92	
	.03	.03	0.00	0.00	0.00	0.00	.05	
ESE	4	3	0	0	0	0	7	1.60
	1.83	1.38	0.00	0.00	0.00	0.00	3.21	
	.11	.08	0.00	0.00	0.00	0.00	.19	
SE	5	5	0	0	0	0	10	1.38
	2.29	2.29	0.00	0.00	0.00	0.00	4.59	
	.13	.13	0.00	0.00	0.00	0.00	.27	
SSE	3	5	0	0	0	0	8	1.41
	1.38	2.29	0.00	0.00	0.00	0.00	3.67	
	.08	.13	0.00	0.00	0.00	0.00	.22	
S	8	17	0	0	0	0	25	1.67
	3.67	7.80	0.00	0.00	0.00	0.00	11.47	
	.22	.46	0.00	0.00	0.00	0.00	.67	
SSW	4	12	2	0	0	0	18	1.84
	1.83	5.50	.92	0.00	0.00	0.00	8.26	
	.11	.32	.05	0.00	0.00	0.00	.48	
SW	10	14	3	0	0	0	27	1.90
	4.59	6.42	1.38	0.00	0.00	0.00	12.39	
	.27	.38	.08	0.00	0.00	0.00	.73	
WSW	11	15	1	0	0	0	27	1.77
	5.05	6.88	.46	0.00	0.00	0.00	12.39	
	.30	.40	.03	0.00	0.00	0.00	.73	
W	15	10	0	0	0	0	25	1.58
	6.88	4.59	0.00	0.00	0.00	0.00	11.47	
	.40	.27	0.00	0.00	0.00	0.00	.67	
WNW	7	2	0	0	0	0	9	1.20
	3.21	.92	0.00	0.00	0.00	0.00	4.13	
	.19	.05	0.00	0.00	0.00	0.00	.24	
NW	2	14	0	0	0	0	16	1.71
	.92	6.42	0.00	0.00	0.00	0.00	7.34	
	.05	.38	0.00	0.00	0.00	0.00	.43	
NNW	4	3	0	0	0	0	7	1.45
	1.83	1.38	0.00	0.00	0.00	0.00	3.21	
	.11	.08	0.00	0.00	0.00	0.00	.19	
N	8	7	0	0	0	0	15	1.60
	3.67	3.21	0.00	0.00	0.00	0.00	6.88	
	.22	.19	0.00	0.00	0.00	0.00	.40	
CALM	12						12	CALM
	5.50						5.50	
	.32						.32	
TOTAL	102	110	6	0	0	0	218	1.55
	46.79	50.46	2.75	0.00	0.00	0.00	100.00	
	2.74	2.96	.16	0.00	0.00	0.00	5.86	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.80

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: SEPTEMBER 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.00.08.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	33 .89	87 2.34	130 3.50	27 .73	4 .11	0 0.00	281 7.56	3.33
NE	14 .38	59 1.59	50 1.34	7 .19	4 .11	0 0.00	134 3.60	3.12
ENE	9 .24	66 1.78	30 .81	2 .05	0 0.00	0 0.00	107 2.88	2.67
E	14 .38	49 1.32	27 .73	0 0.00	0 0.00	0 0.00	90 2.42	2.41
ESE	28 .75	58 1.56	30 .81	0 0.00	0 0.00	0 0.00	116 3.12	2.37
SE	35 .94	89 2.39	57 1.53	11 .30	0 0.00	0 0.00	192 5.16	2.67
SSE	36 .97	116 3.12	144 3.87	22 .59	1 .03	0 0.00	319 8.58	3.04
S	36 .97	208 5.59	261 7.02	69 1.86	10 .27	1 .03	585 15.73	3.46
SSW	19 .51	152 4.09	138 3.71	92 2.47	31 .83	13 .35	445 11.97	4.23
SW	35 .94	119 3.20	94 2.53	44 1.18	9 .24	0 0.00	301 8.10	3.33
WSW	28 .75	65 1.75	35 .94	10 .27	1 .03	0 0.00	139 3.74	2.70
W	36 .97	47 1.26	29 .78	7 .19	0 0.00	0 0.00	119 3.20	2.43
WNW	20 .54	19 .51	28 .75	9 .24	0 0.00	0 0.00	76 2.04	2.91
NW	20 .54	38 .02	40 1.08	8 .22	1 .03	1 .03	108 2.90	2.86
NNW	31 .83	67 1.80	94 2.53	42 1.13	4 .11	2 .05	240 6.46	3.56
N	46 1.24	106 2.85	153 4.12	69 1.86	4 .11	0 0.00	378 10.17	3.51
CALM	88 2.37						88 2.37	CALM
TOTAL	528 14.20	1345 36.18	1340 36.04	419 11.27	69 1.86	17 .46	3718 100.00	3.20

NUMBER OF VALID OBSERVATIONS 3718 86.06 PCT.
NUMBER OF INVALID OBSERVATIONS 602 13.94 PCT.
TOTAL NUMBER OF OBSERVATIONS 4320 100.00 PCT.

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES

TABLE 2.81

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: OCTOBER 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.02.50.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	3	10	10	12	2	0	37	4.16
	.43	1.43	1.43	1.72	.29	0.00	5.31	
	.07	.24	.24	.29	.05	0.00	.91	
NE	2	4	6	6	1	0	19	4.16
	.29	.57	.86	.86	.14	0.00	2.73	
	.05	.10	.15	.15	.02	0.00	.47	
ENE	2	2	5	0	0	0	9	3.21
	.29	.29	.72	0.00	0.00	0.00	1.29	
	.05	.05	.12	0.00	0.00	0.00	.22	
E	0	8	0	0	0	0	8	2.21
	0.00	1.15	0 00	0.00	0.00	0.00	1.15	
	0.00	.20	0.00	0.00	0.00	0.00	.20	
ESE	1	3	1	0	0	0	5	2.36
	.14	.43	.14	0.00	0.00	0.00	.72	
	.02	.07	.02	0.00	0.00	0.00	.12	
SE	0	7	17	10	0	0	34	4.28
	0.00	1.00	2.44	1.43	0.00	0.00	4.88	
	0.00	.17	.42	.24	0.00	0.00	.83	
SSE	2	13	20	17	9	0	61	4.90
	.29	1.87	2.87	2.44	1.29	0.00	8.75	
	.05	.32	.49	.42	.22	0.00	1.49	
S	3	6	15	26	19	2	71	6.06
	.43	.86	2.15	3.73	2.73	.29	10.19	
	.07	.15	.37	.64	.47	.05	1.74	
SSW	2	2	14	18	22	2	60	6.64
	.29	.29	2.01	2.58	3.16	.29	8.61	
	.05	.05	.34	.44	.54	.05	1.4	
SW	2	13	23	15	8	4	65	5.11
	.29	1.87	3.30	2.15	1.15	.57	9.33	
	.05	.32	.56	.37	.20	.10	1.59	
WSW	2	14	17	2	1	0	36	3.32
	.29	2.01	2.44	.29	.14	0.00	5.16	
	.05	.34	.42	.05	.02	0.00	.88	
W	2	20	6	8	1	0	37	3.2
	.29	2.87	.86	1.15	.14	0.00	5.31	
	.05	.49	.15	.20	.02	0.00	.91	
WNW	5	8	18	11	3	0	45	4.09
	.72	1.15	2.58	1.58	.43	0.00	6.46	
	.12	.20	.44	.27	.07	0.00	1.10	
NW	3	8	12	16	9	3	51	5.26
	.43	1.15	1.72	2.30	1.29	.43	7.32	
	.07	.20	.29	.39	.22	.07	1.25	
NNW	0	9	21	31	5	0	66	5.12
	0.00	1.29	3.01	4.45	.72	0.00	9.47	
	0.00	.22	.51	.76	.12	0.00	1.62	
N	6	15	32	24	2	0	79	4.06
	.86	2.15	4.59	3.44	.29	0.00	11.33	
	.15	.37	.78	.59	.05	0.00	1.93	
CALM	14						14	CALM
	2.01						2.01	
	.34						.34	
TOTAL	49	142	217	196	82	11	697	4.66
	7.03	20.37	31.13	28.12	11.76	1.58	100.00	
	1.20	3.48	5.31	4.80	2.01	.27	17.07	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.82

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: OCTOBER 1970 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.02.50.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	3	3	4	0	0	10	4.39
	0.00	1.99	1.99	2.65	0.00	0.00	6.62	
	0.00	.07	.07	.10	0.00	0.00	.24	
NE	0	1	0	0	0	0	1	2.70
	0.00	.66	0.00	0.00	0.00	0.00	.66	
	0.00	.02	0.00	0.00	0.00	0.00	.02	
ENE	0	0	3	0	0	0	3	3.70
	0.00	0.00	1.99	0.00	0.00	0.00	1.99	
	0.00	0.00	.07	0.00	0.00	0.00	.07	
E	0	0	1	0	0	0	1	4.65
	0.00	0.00	.66	0.00	0.00	0.00	.66	
	0.00	0.00	.02	0.00	0.00	0.00	.02	
ESE	0	0	0	3	0	0	3	5.30
	0.00	0.00	0.00	1.99	0.00	0.00	1.99	
	0.00	0.00	0.00	.07	0.00	0.00	.07	
SE	0	1	4	3	0	0	8	4.31
	0.00	.66	2.65	1.99	0.00	0.00	5.30	
	0.00	.02	.10	.07	0.00	0.00	.20	
SSE	0	0	5	4	0	0	9	5.01
	0.00	0.00	3.31	2.65	0.00	0.00	5.96	
	0.00	0.00	.12	.10	0.00	0.00	.22	
S	0	1	2	9	6	1	19	6.65
	0.00	.66	1.32	5.96	3.97	.66	12.58	
	0.00	.02	.05	.22	.15	.02	.47	
SSW	0	4	3	6	1	0	14	4.74
	0.00	2.65	1.99	3.97	.66	0.00	9.27	
	0.00	.10	.07	.15	.02	0.00	.34	
SW	0	2	2	3	4	0	11	6.10
	0.00	1.32	1.32	1.99	2.65	0.00	7.28	
	0.00	.05	.05	.07	.10	0.00	.27	
WSW	0	1	4	2	0	0	7	4.26
	0.00	.66	2.65	1.32	0.00	0.00	4.64	
	0.00	.02	.10	.05	0.00	0.00	.17	
W	0	0	1	0	0	0	1	3.30
	0.00	0.00	.66	0.00	0.00	0.00	.66	
	0.00	0.00	.02	0.00	0.00	0.00	.02	
WNW	1	0	3	2	0	0	6	4.03
	.66	0.00	1.99	1.32	0.00	0.00	3.97	
	.02	0.00	.07	.05	0.00	0.00	.15	
NW	0	1	3	1	1	0	6	4.78
	0.00	.66	1.99	.66	.66	0.00	3.97	
	0.00	.02	.07	.02	.02	0.00	.15	
NNW	9	6	4	10	1	0	21	4.71
	0.00	3.97	2.65	6.62	.66	0.00	13.91	
	0.00	.15	.10	.24	.02	0.00	.51	
N	1	4	13	11	1	0	30	4.40
	.66	2.65	8.61	7.28	.66	0.00	19.87	
	.02	.10	.32	.27	.02	0.00	.73	
CALM	1						1	CALM
	.66						.66	
	.02						.02	
TOTAL	3	24	51	58	14	1	151	4.87
	1.99	15.89	33.77	38.41	9.27	.66	100.00	
	.07	.59	1.25	1.42	.34	.02	3.70	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.83

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: OCTOBER 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.02.50.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	1	8	2	0	0	11	3.94
	0.00	.52	4.15	1.04	0.00	0.00	5.70	
	0.00	.02	.20	.05	0.00	0.00	.27	
NE	0	1	2	1	0	0	4	3.92
	0.00	.52	1.04	.52	0.00	0.00	2.07	
	0.00	.02	.05	.02	0.00	0.00	.10	
ENE	0	0	2	0	0	0	2	3.61
	0.00	0.00	1.04	0.00	0.00	0.00	1.04	
	0.00	0.00	.05	0.00	0.00	0.00	.05	
E	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ESE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SE	0	1	4	3	0	0	8	4.21
	0.00	.52	2.07	1.55	0.00	0.00	4.15	
	0.00	.02	.10	.07	0.00	0.00	.20	
SSE	0	2	4	3	1	0	10	5.05
	0.00	1.04	2.07	1.55	.52	0.00	5.18	
	0.00	.05	.10	.07	.02	0.00	.24	
S	1	2	8	12	2	2	27	5.47
	.52	1.04	4.15	6.22	1.04	1.04	13.99	
	.02	.05	.20	.29	.05	.05	.66	
SSW	0	4	10	5	0	1	20	4.78
	0.00	2.07	5.18	2.59	0.00	.52	10.36	
	0.00	.10	.24	.12	0.00	.02	.49	
SW	0	3	7	7	2	0	19	4.63
	0.00	1.55	3.63	3.63	1.04	0.00	9.84	
	0.00	.07	.17	.17	.05	0.00	.47	
WSW	0	1	0	2	0	0	3	5.09
	0.00	.52	0.00	1.04	0.00	0.00	1.55	
	0.00	.02	0.00	.05	0.00	0.00	.07	
W	0	2	2	2	0	0	6	3.89
	0.00	1.04	1.04	1.04	0.00	0.00	3.11	
	0.00	.05	.05	.05	0.00	0.00	.15	
WNW	1	0	3	1	0	0	5	4.07
	.52	0.00	1.55	.52	0.00	0.00	2.59	
	.02	0.00	.07	.02	0.00	0.00	.12	
NW	1	3	6	2	1	0	13	3.91
	.52	1.55	3.11	1.04	.52	0.00	6.74	
	.02	.07	.15	.05	.02	0.00	.32	
NNW	0	5	8	9	0	0	22	4.55
	0.00	2.59	4.15	4.66	0.00	0.00	11.40	
	0.00	.12	.20	.22	0.00	0.00	.54	
N	0	11	20	9	2	0	42	4.29
	0.00	5.70	10.36	4.66	1.04	0.00	21.76	
	0.00	.27	.49	.22	.05	0.00	1.03	
CALM	1						1	CALM
	.52						.52	
	.02						.02	
TOTAL	4	36	84	58	8	3	193	4.52
	2.07	18.65	43.52	30.05	4.15	1.55	100.00	
	.10	.88	2.06	1.42	.20	.07	4.73	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.84

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: OCTOBER 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.02.50.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	9	29	22	10	0	0	70	3.14
	.75	2.42	1.83	.83	0.00	0.00	5.83	
	.22	.71	.54	.24	0.00	0.00	1.71	
NE	6	17	24	2	0	0	49	3.02
	.50	1.42	2.00	.17	0.00	0.00	4.08	
	.15	.42	.59	.05	0.00	0.00	1.20	
ENE	1	6	6	3	0	0	16	3.39
	.08	.50	.50	.25	0.00	0.00	1.33	
	.02	.15	.15	.07	0.00	0.00	.39	
E	1	9	7	0	0	0	17	3.08
	.08	.75	.58	0.00	0.00	0.00	1.42	
	.02	.22	.17	0.00	0.00	0.00	.42	
ESE	0	9	15	3	0	0	27	3.61
	0.00	.75	1.25	.25	0.00	0.00	2.25	
	0.00	.22	.37	.07	0.00	0.00	.66	
SE	5	28	49	5	0	0	87	3.48
	.42	2.33	4.08	.42	0.00	0.00	7.25	
	.12	.69	1.20	.12	0.00	0.00	2.13	
SSE	2	25	73	19	1	0	120	3.90
	.17	2.08	6.08	1.58	.08	0.00	10.00	
	.05	.61	1.79	.47	.02	0.00	2.94	
S	7	36	79	70	15	2	210	4.73
	.58	3.00	6.58	5.83	1.33	.17	17.50	
	.17	.88	1.93	1.71	.39	.05	5.14	
SSW	5	20	46	26	8	0	105	4.42
	.42	1.67	3.83	2.17	.67	0.00	8.75	
	.12	.49	1.13	.64	.20	0.00	2.57	
SW	10	7	15	7	3	0	42	3.55
	.83	.58	1.25	.58	.25	0.00	3.50	
	.24	.17	.37	.17	.07	0.00	1.03	
WSW	5	16	14	3	0	0	38	2.95
	.42	1.33	1.17	.25	0.00	0.00	3.17	
	.12	.39	.34	.07	0.00	0.00	.93	
W	7	12	14	2	0	0	35	2.87
	.58	1.00	1.17	.17	0.00	0.00	2.92	
	.17	.29	.34	.05	0.00	0.00	.86	
WNW	6	10	12	0	0	0	28	2.73
	.50	.83	1.00	0.00	0.00	0.00	2.33	
	.15	.24	.29	0.00	0.00	0.00	.69	
NW	3	8	23	10	0	0	44	3.93
	.25	.67	1.92	.83	0.00	0.00	3.67	
	.07	.20	.56	.24	0.00	0.00	1.08	
NNW	3	31	45	36	0	0	115	4.17
	.25	2.58	3.75	3.00	0.00	0.00	9.58	
	.07	.76	1.10	.88	0.00	0.00	2.82	
N	9	50	89	33	10	0	191	3.90
	.75	4.17	7.42	2.75	.83	0.00	15.92	
	.22	1.22	2.18	.81	.24	0.00	4.68	
CALM	6						6	CALM
	.50						.50	
	.15						.15	
TOTAL	85	313	533	229	38	2	1200	3.86
	7.08	26.08	44.42	19.08	3.17	.17	100.00	
	2.08	7.67	13.05	5.61	.93	.05	29.30	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.85

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: OCTOBER 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.02.50.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	5	19	17	0	0	0	41	2.70
	.50	1.90	1.70	0.00	0.00	0.00	4.11	
	.12	.47	.42	0.00	0.00	0.00	1.00	
NE	4	28	3	0	0	0	35	2.23
	.40	2.81	.30	0.00	0.00	0.00	3.51	
	.10	.69	.07	0.00	0.00	0.00	.86	
ENE	5	12	1	0	0	0	18	2.08
	.50	1.20	.10	0.00	0.00	0.00	1.80	
	.12	.29	.02	0.00	0.00	0.00	.44	
E	7	13	0	0	0	0	20	1.65
	.70	1.30	0.00	0.00	0.00	0.00	2.00	
	.17	.32	0.00	0.00	0.00	0.00	.49	
ESE	6	23	5	0	0	0	34	2.33
	.60	2.30	.50	0.00	0.00	0.00	3.41	
	.15	.56	.12	0.00	0.00	0.00	.83	
SE	6	47	23	1	0	0	77	2.69
	.60	4.71	2.30	.10	0.00	0.00	7.72	
	.15	1.15	.56	.02	0.00	0.00	1.89	
SSE	11	51	62	8	3	0	135	3.23
	1.10	5.11	6.21	.80	.30	0.00	13.53	
	.27	1.25	1.52	.20	.07	0.00	3.31	
S	19	74	86	10	4	0	193	3.21
	1.90	7.41	8.62	1.00	.40	0.00	19.34	
	.47	1.81	2.11	.24	.10	0.00	4.73	
SSW	10	47	74	15	1	0	147	3.38
	1.00	4.71	7.41	1.50	.10	0.00	14.73	
	.24	1.15	1.81	.37	.02	0.00	3.60	
SW	8	18	20	10	1	0	57	3.48
	.80	1.80	2.00	1.00	.10	0.00	5.71	
	.20	.44	.49	.24	.02	0.00	1.40	
WSW	7	15	6	1	0	0	29	2.39
	.70	1.50	.60	.10	0.00	0.00	2.91	
	.17	.37	.15	.02	0.00	0.00	.71	
W	11	7	4	0	0	0	22	2.05
	1.10	.70	.40	0.00	0.00	0.00	2.20	
	.27	.17	.10	0.00	0.00	0.00	.54	
WNW	7	14	14	0	0	0	35	2.52
	.70	1.40	1.40	0.00	0.00	0.00	3.51	
	.17	.34	.34	0.00	0.00	0.00	.86	
NW	8	16	23	1	0	0	48	2.85
	.80	1.60	2.30	.10	0.00	0.00	4.81	
	.20	.39	.56	.02	0.00	0.00	1.18	
NNW	4	14	15	0	0	0	33	2.75
	.40	1.40	1.50	0.00	0.00	0.00	3.31	
	.10	.34	.37	0.00	0.00	0.00	.81	
N	17	25	11	0	0	0	53	2.22
	1.70	2.51	1.10	0.00	0.00	0.00	5.31	
	.42	.61	.27	0.00	0.00	0.00	1.30	
CALM	21						21	CALM
	2.10						2.10	
	.51						.51	
TOTAL	156	423	364	46	9	0	998	2.85
	15.63	42.38	36.47	4.61	.90	0.00	100.00	
	3.82	10.36	8.92	1.13	.22	0.00	24.44	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.86

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: OCTOBER 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.02.50.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	7	12	1	0	0	0	20	1.68
	1.44	2.47	.21	0.00	0.00	0.00	4.12	
	.17	.29	.02	0.00	0.00	0.00	.49	
NE	7	4	0	0	0	0	11	1.40
	1.44	.82	0.00	0.00	0.00	0.00	2.26	
	.17	.10	0.00	0.00	0.00	0.00	.27	
ENE	5	2	0	0	0	0	7	1.45
	1.03	.41	0.00	0.00	0.00	0.00	1.44	
	.12	.05	0.00	0.00	0.00	0.00	.17	
E	3	5	0	0	0	0	8	1.53
	.62	1.03	0.00	0.00	0.00	0.00	1.65	
	.07	.12	0.00	0.00	0.00	0.00	.20	
ESE	6	2	0	0	0	0	8	1.19
	1.23	.41	0.00	0.00	0.00	0.00	1.65	
	.15	.05	0.00	0.00	0.00	0.00	.20	
SE	3	19	5	0	0	0	27	2.29
	.62	3.91	1.03	0.00	0.00	0.00	5.56	
	.07	.47	.12	0.00	0.00	0.00	.66	
SSE	9	40	11	1	1	0	52	2.36
	1.85	8.23	2.26	.21	.21	0.00	12.76	
	.22	.98	.27	.02	.02	0.00	1.52	
S	8	63	5	0	0	0	76	2.13
	1.65	12.96	1.03	0.00	0.00	0.00	15.64	
	.20	1.54	.12	0.00	0.00	0.00	1.86	
SSW	8	40	13	0	0	0	61	2.35
	1.65	8.23	2.67	0.00	0.00	0.00	12.55	
	.20	.98	.32	0.00	0.00	0.00	1.49	
SW	12	27	8	0	0	0	56	2.26
	2.47	7.41	1.65	0.00	0.00	0.00	11.52	
	.29	.88	.20	0.00	0.00	0.00	1.37	
WSW	8	18	1	0	0	0	27	1.98
	1.65	3.70	.21	0.00	0.00	0.00	5.56	
	.20	.44	.02	0.00	0.00	0.00	.66	
W	8	16	1	0	0	0	25	1.85
	1.65	3.29	.21	0.00	0.00	0.00	5.14	
	.20	.39	.02	0.00	0.00	0.00	.61	
WNW	6	10	1	0	0	0	17	1.75
	1.23	2.06	.21	0.00	0.00	0.00	3.50	
	.15	.24	.02	0.00	0.00	0.00	.42	
NW	11	12	0	0	0	0	23	1.62
	2.26	2.47	0.00	0.00	0.00	0.00	4.73	
	.27	.29	0.00	0.00	0.00	0.00	.56	
NNW	5	15	1	0	0	0	21	1.93
	1.03	3.09	.21	0.00	0.00	0.00	4.32	
	.12	.37	.02	0.00	0.00	0.00	.51	
N	10	16	1	0	0	0	27	1.87
	2.06	3.29	.21	0.00	0.00	0.00	5.56	
	.24	.39	.02	0.00	0.00	0.00	.66	
CALM	10						10	CALM
	2.06						2.06	
	.24						.24	
TOTAL	126	310	48	1	1	0	486	2.01
	25.93	63.79	9.88	.21	.21	0.00	100.00	
	3.09	7.59	1.18	.02	.02	0.00	11.90	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.87

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: OCTOBER 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.57 METERS
TABLE GENERATED: 05/14/77. 12.02.50.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	6	4	0	0	0	0	10	1.50
	1.68	1.12	0.00	0.00	0.00	0.00	2.79	
	.15	.10	0.00	0.00	0.00	0.00	.24	
NE	4	3	0	0	0	0	7	1.49
	1.12	.84	0.00	0.00	0.00	0.00	1.96	
	.10	.07	0.00	0.00	0.00	0.00	.17	
ENE	4	3	0	0	0	0	7	1.31
	1.12	.84	0.00	0.00	0.00	0.00	1.96	
	.10	.07	0.00	0.00	0.00	0.00	.17	
E	6	1	0	0	0	0	7	1.19
	1.68	.28	0.00	0.00	0.00	0.00	1.96	
	.15	.02	0.00	0.00	0.00	0.00	.17	
ESE	4	0	0	0	0	0	4	1.12
	1.12	0.00	0.00	0.00	0.00	0.00	1.12	
	.10	0.00	0.00	0.00	0.00	0.00	.10	
SE	6	5	0	0	0	0	11	1.53
	1.68	1.40	0.00	0.00	0.00	0.00	3.07	
	.15	.12	0.00	0.00	0.00	0.00	.27	
SSE	18	5	4	0	0	0	27	1.68
	5.03	1.40	1.12	0.00	0.00	0.00	7.54	
	.44	.12	.10	0.00	0.00	0.00	.66	
S	12	15	1	0	0	0	28	1.83
	3.35	4.19	.28	0.00	0.00	0.00	7.82	
	.29	.37	.02	0.00	0.00	0.00	.69	
SSW	13	54	0	0	0	0	67	1.87
	3.63	15.08	0.00	0.00	0.00	0.00	18.72	
	.32	1.32	0.00	0.00	0.00	0.00	1.64	
SW	18	30	6	0	0	0	54	1.95
	5.03	8.38	1.68	0.00	0.00	0.00	15.08	
	.44	.73	.15	0.00	0.00	0.00	1.32	
WSW	12	13	1	0	0	0	26	1.59
	3.35	3.63	.28	0.00	0.00	0.00	7.26	
	.29	.32	.02	0.00	0.00	0.00	.64	
W	6	13	0	0	0	0	19	1.68
	1.68	3.63	0.00	0.00	0.00	0.00	5.31	
	.15	.32	0.00	0.00	0.00	0.00	.47	
WNW	9	7	1	0	0	0	17	1.70
	2.51	1.96	.28	0.00	0.00	0.00	4.75	
	.22	.17	.02	0.00	0.00	0.00	.42	
NW	9	10	0	0	0	0	19	1.53
	2.51	2.79	0.00	0.00	0.00	0.00	5.31	
	.22	.24	0.00	0.00	0.00	0.00	.47	
NNW	6	10	1	0	0	0	17	1.83
	1.68	2.79	.28	0.00	0.00	0.00	4.75	
	.15	.24	.02	0.00	0.00	0.00	.42	
N	6	9	1	0	0	0	16	1.58
	1.68	2.51	.28	0.00	0.00	0.00	4.47	
	.15	.22	.02	0.00	0.00	0.00	.39	
CALM	22						22	CALM
	6.15						6.15	
	.54						.54	
TOTAL	161	182	15	0	0	0	358	1.62
	44.97	50.84	4.19	0.00	0.00	0.00	100.00	
	3.94	4.46	.37	0.00	0.00	0.00	8.77	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.88

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: OCTOBER 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.32.50.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	30 .73	78 1.91	61 1.49	28 .69	2 .05	0 0.00	199 4.87	3.12
NE	23 .56	58 1.42	35 .86	9 .22	1 .02	0 0.00	126 3.09	2.77
ENE	17 .42	25 .61	17 .42	3 .07	0 0.00	0 0.00	62 1.52	2.55
E	17 .42	36 .88	8 .20	0 0.00	0 0.00	0 0.00	61 1.49	2.10
ESE	17 .42	37 .91	21 .51	6 .15	0 0.00	0 0.00	81 1.98	2.70
SE	20 .49	108 2.65	102 2.50	22 .54	0 0.00	0 0.00	252 6.17	3.18
SSE	42 1.03	136 3.33	179 4.38	52 1.27	15 .37	0 0.00	424 10.38	3.52
S	50 1.22	197 4.82	196 4.80	127 3.11	47 1.15	7 .17	624 15.28	4.05
SSW	38 .93	171 4.19	160 3.92	70 1.71	32 .78	3 .07	474 11.61	3.78
SW	50 1.22	109 2.67	81 1.98	42 1.03	18 .44	4 .10	304 7.45	3.51
WSW	34 .83	78 1.91	43 1.05	10 .24	1 .02	0 0.00	166 4.07	2.65
W	34 .83	70 1.71	28 .69	12 .29	1 .02	0 0.00	145 3.55	2.56
WNW	35 .86	49 1.20	52 1.27	14 .34	3 .07	0 0.00	153 3.75	2.95
NW	35 .86	58 1.42	67 1.64	30 .73	11 .27	3 .07	204 5.00	3.55
NNW	18 .44	90 2.20	95 2.33	86 2.11	6 .15	0 0.00	295 7.23	3.99
N	49 1.20	130 3.18	167 4.09	77 1.89	15 .37	0 0.00	438 10.73	3.59
CALM	75 1.84						75 1.84	CALM
TOTAL	584 14.30	1430 35.02	1312 32.13	588 14.40	152 3.72	17 .42	4083 100.00	3.40

NUMBER OF VALID OBSERVATIONS 4083 91.47 PCT.
NUMBER OF INVALID OBSERVATIONS 381 8.53 PCT.
TOTAL NUMBER OF OBSERVATIONS 4464 100.00 PCT.

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES

TABLE 2.89

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: NOVEMBER 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.05.35.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	1	8	7	12	1	29	6.55
	0.00	.25	2.01	1.75	3.01	.25	7.27	
	0.00	.02	.19	.17	.29	.02	.70	
NE	1	3	7	0	0	0	11	3.39
	.25	.75	1.75	0.00	0.00	0.00	2.76	
	.02	.07	.17	0.00	0.00	0.00	.26	
ENE	3	2	1	0	0	0	6	2.16
	.75	.50	.25	0.00	0.00	0.00	1.50	
	.07	.05	.02	0.00	0.00	0.00	.14	
E	0	2	1	0	0	0	3	2.39
	0.00	.50	.25	0.00	0.00	0.00	.75	
	0.00	.05	.02	0.00	0.00	0.00	.07	
ESE	0	1	4	3	0	0	8	4.36
	0.00	.25	1.00	.75	0.00	0.00	2.01	
	0.00	.02	.10	.07	0.00	0.00	.19	
SE	0	2	1	0	0	0	3	2.43
	0.00	.50	.25	0.00	0.00	0.00	.75	
	0.00	.05	.02	0.00	0.00	0.00	.07	
SSE	0	2	4	10	0	0	16	4.97
	0.00	.50	1.00	2.51	0.00	0.00	4.01	
	0.00	.05	.10	.24	0.00	0.00	.38	
S	0	4	8	11	3	1	27	5.35
	0.00	1.00	2.01	2.76	.75	.25	6.77	
	0.00	.10	.19	.26	.07	.02	.65	
SSW	2	5	4	0	1	1	13	3.62
	.50	1.25	1.00	0.00	.25	.25	3.26	
	.05	.12	.10	0.00	.02	.02	.31	
SW	0	4	6	1	0	0	11	3.55
	0.00	1.00	1.50	.25	0.00	0.00	2.76	
	0.00	.10	.14	.02	0.00	0.00	.26	
WSW	1	4	9	1	2	0	17	3.75
	.25	1.00	2.26	.25	.50	0.00	4.26	
	.02	.10	.22	.02	.05	0.00	.41	
W	3	13	5	0	0	1	22	2.81
	.75	3.26	1.25	0.00	0.00	.25	5.51	
	.07	.31	.12	0.00	0.00	.02	.53	
WNW	1	11	9	11	9	0	41	4.96
	.25	2.76	2.26	2.76	2.26	0.00	10.28	
	.02	.26	.22	.26	.22	0.00	.98	
NW	2	3	16	29	11	0	61	5.62
	.50	.75	4.01	7.27	2.76	0.00	15.29	
	.05	.07	.38	.70	.26	0.00	1.46	
NNW	2	4	13	28	24	4	75	6.43
	.50	1.00	3.26	7.02	6.02	1.00	18.80	
	.05	.10	.31	.67	.58	.10	1.80	
N	1	6	23	6	5	8	49	5.78
	.25	1.50	5.76	1.50	1.25	2.01	12.28	
	.02	.14	.55	.14	.12	.19	1.18	
CALM	7						7	CALM
	1.75						1.75	
	.17						.17	
TOTAL	23	67	119	107	67	16	399	5.10
	5.76	16.79	29.82	26.82	16.79	4.01	100.00	
	.55	1.61	2.86	2.57	1.61	.38	9.58	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.90

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: NOVEMBER 1970 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.05.35.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1 .58 .02	2 1.16 .05	6 3.47 .14	2 1.16 .05	7 4.05 .17	0 0.00 0.00	18 10.40 .43	5.83
NE	1 .58 .02	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1 .58 .02	1.50
ENE	1 .58 .02	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1 .58 .02	1.35
E	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.00
ESE	0 0.00 0.00	2 1.16 .05	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	2 1.16 .05	2.46
SE	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.00
SSE	0 0.00 0.00	0 0.00 0.00	4 2.31 .10	3 1.73 .07	0 0.00 0.00	0 0.00 0.00	7 4.05 .17	5.04
S	0 0.00 0.00	1 .58 .02	4 2.31 .10	11 6.36 .26	3 1.73 .07	0 0.00 0.00	19 10.98 .46	6.03
SSW	0 0.00 0.00	0 0.00 0.00	5 2.89 .12	3 1.73 .07	2 1.16 .05	0 0.00 0.00	10 5.78 .24	5.32
SW	0 0.00 0.00	3 1.73 .07	0 0.00 0.00	2 1.16 .05	0 0.00 0.00	0 0.00 0.00	5 2.89 .12	4.22
WSW	1 .58 .02	2 1.16 .05	0 0.00 0.00	1 .58 .02	1 .58 .02	0 0.00 0.00	5 2.89 .12	4.10
W	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.00
WNW	0 0.00 0.00	2 1.16 .05	4 2.31 .10	4 2.31 .10	1 .58 .02	0 0.00 0.00	11 6.36 .26	4.70
NW	1 .58 .02	2 1.16 .05	5 2.89 .12	8 4.62 .19	0 0.00 0.00	0 0.00 0.00	16 9.25 .38	4.62
NNW	0 0.00 0.00	5 2.89 .12	4 2.31 .10	9 5.20 .22	9 5.20 .22	0 0.00 0.00	27 15.61 .65	5.88
N	1 .58 .02	5 2.89 .12	31 17.92 .74	9 5.20 .22	2 1.16 .05	2 1.16 .05	50 28.90 1.20	4.55
CALM	1 .58 .02						1 .58 .02	CALM
TOTAL	7 4.05 .17	24 13.87 .58	63 36.42 1.51	52 30.06 1.25	25 14.45 .60	2 1.16 .05	173 100.00 4.15	5.03

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.91

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: NOVEMBER 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.05.35.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	0	3	11	9	7	4	34	6.17
	0.00	1.26	4.62	3.78	2.94	1.68	14.29	
	0.00	.07	.29	.22	.17	.10	.82	
NE	1	2	5	1	0	0	9	3.71
	.42	.84	2.10	.42	0.00	0.00	3.78	
	.02	.05	.12	.02	0.00	0.00	.22	
ENE	0	2	1	0	0	0	3	2.48
	0.00	.84	.42	0.00	0.00	0.00	1.26	
	0.00	.05	.02	0.00	0.00	0.00	.07	
E	0	0	1	0	0	0	1	4.02
	0.00	0.00	.42	0.00	0.00	0.00	.42	
	0.00	0.00	.02	0.00	0.00	0.00	.02	
ESE	0	0	0	0	0	0	0	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SE	0	1	1	0	0	0	2	2.72
	0.00	.42	.42	0.00	0.00	0.00	.84	
	0.00	.02	.02	0.00	0.00	0.00	.05	
SSE	0	0	8	2	1	0	11	4.68
	0.00	0.00	3.36	.84	.42	0.00	4.62	
	0.00	0.00	.19	.05	.02	0.00	.26	
S	0	0	11	10	4	0	25	5.56
	0.00	0.00	4.62	4.20	1.68	0.00	10.50	
	0.00	0.00	.26	.24	.10	0.00	.60	
SSW	0	3	7	4	0	0	14	4.42
	0.00	1.26	2.94	1.68	0.00	0.00	5.88	
	0.00	.07	.17	.10	0.00	0.00	.34	
SW	0	2	2	4	1	0	9	5.14
	0.00	.84	.84	1.68	.42	0.00	3.78	
	0.00	.05	.05	.10	.02	0.00	.22	
WSW	0	0	3	1	0	3	4	4.57
	0.00	0.00	1.26	.42	0.00	0.00	1.68	
	0.00	0.00	.07	.02	0.00	0.00	.10	
W	1	0	0	0	0	0	1	.89
	.42	0.00	0.00	0.00	0.00	0.00	.42	
	.02	0.00	0.00	0.00	0.00	0.00	.02	
WNW	1	3	1	2	0	0	7	3.29
	.42	1.26	.42	.84	0.00	0.00	2.94	
	.02	.07	.02	.05	0.00	0.00	.17	
NW	0	4	5	4	4	0	22	5.24
	0.00	1.68	2.10	3.78	1.68	0.00	9.24	
	0.00	.10	.12	.22	.10	0.00	.53	
NNW	1	11	14	14	9	1	50	4.92
	.42	4.62	5.88	5.88	3.78	.42	21.01	
	.02	.26	.34	.34	.22	.02	1.20	
N	1	6	17	14	6	2	46	5.23
	.42	2.52	7.14	5.88	2.52	.84	19.33	
	.02	.14	.41	.34	.14	.05	1.10	
CALM	0						0	CALM
	0.00						0.00	
	0.00						0.00	
TOTAL	5	37	87	70	32	7	238	5.08
	2.10	15.55	36.55	29.41	13.45	2.94	100.00	
	.12	.89	2.09	1.68	.77	.17	5.71	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.92

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: NOVEMBER 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.05.35.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	14	55	62	24	12	10	177	4.24
	.75	2.94	3.32	1.28	.64	.54	9.48	
	.34	1.32	1.49	.58	.29	.24	4.25	
NE	7	37	40	4	1	0	89	3.11
	.37	1.98	2.14	.21	.05	0.00	4.76	
	.17	.89	.96	.10	.02	0.00	2.14	
ENE	9	33	21	6	2	0	71	2.94
	.48	1.77	1.12	.32	.11	0.00	3.80	
	.22	.79	.50	.14	.05	0.00	1.70	
E	2	36	24	2	0	0	64	3.01
	.11	1.93	1.28	.11	0.00	0.00	3.43	
	.05	.86	.58	.05	0.00	0.00	1.54	
ESE	8	31	32	13	0	0	84	3.36
	.43	1.66	1.71	.70	0.00	0.00	4.50	
	.19	.74	.77	.31	0.00	0.00	2.02	
SE	14	36	51	19	0	0	120	3.50
	.75	1.93	2.73	1.02	0.00	0.00	6.42	
	.34	.86	1.22	.46	0.00	0.00	2.88	
SSE	6	43	43	21	1	0	114	3.66
	.32	2.30	2.30	1.12	.05	0.00	6.10	
	.14	1.03	1.03	.50	.02	0.00	2.74	
S	4	37	82	37	8	0	168	4.13
	.21	1.98	4.39	1.98	.43	0.00	8.99	
	.10	.89	1.97	.89	.19	0.00	4.03	
SSW	3	18	43	33	6	0	103	4.44
	.16	.96	2.30	1.77	.32	0.00	5.51	
	.07	.43	1.03	.79	.14	0.00	2.47	
SW	2	22	33	15	2	0	74	3.84
	.11	1.18	1.77	.80	.11	0.00	3.96	
	.05	.53	.79	.36	.05	0.00	1.78	
WSW	5	14	17	5	1	0	42	3.28
	.27	.75	.91	.27	.05	0.00	2.25	
	.12	.34	.41	.12	.02	0.00	1.01	
W	3	12	10	4	0	0	29	3.18
	.16	.64	.54	.21	0.00	0.00	1.55	
	.07	.29	.24	.10	0.00	0.00	.70	
WNW	2	23	24	9	2	0	60	3.67
	.11	1.23	1.28	.48	.11	0.00	3.21	
	.05	.55	.58	.22	.05	0.00	1.44	
NW	7	30	64	55	4	0	160	4.36
	.37	1.61	3.43	2.94	.21	0.00	8.57	
	.17	.72	1.54	1.32	.10	0.00	3.84	
NNW	16	47	87	83	20	4	257	4.63
	.86	2.52	4.66	4.44	1.07	.21	13.76	
	.38	1.13	2.09	1.99	.48	.10	6.17	
N	13	58	102	55	9	7	244	4.27
	.70	3.10	5.46	2.94	.48	.37	13.06	
	.31	1.39	2.45	1.32	.22	.17	5.86	
CALM	12						12	CALM
	.64						.64	
	.29						.29	
TOTAL	127	532	735	385	68	21	1868	3.94
	6.80	28.48	39.35	20.61	3.64	1.12	100.00	
	3.05	12.77	17.64	9.24	1.63	.50	44.84	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.93

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: NOVEMBER 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.05.33.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	6	10	1	0	0	0	17	1.80
	.64	1.07	.11	0.00	0.00	0.00	1.82	
	.14	.24	.02	0.00	0.00	0.00	.41	
NE	6	23	1	0	0	0	30	1.97
	.64	2.47	.11	0.00	0.00	0.00	3.22	
	.14	.55	.02	0.00	0.00	0.00	.72	
ENE	7	14	0	0	0	0	21	1.72
	.75	1.50	0.00	0.00	0.00	0.00	2.25	
	.17	.34	0.00	0.00	0.00	0.00	.50	
E	1	11	1	1	0	0	14	2.42
	.11	1.18	.11	.11	0.00	0.00	1.50	
	.02	.26	.02	.02	0.00	0.00	.34	
ESE	4	35	12	2	0	0	53	2.74
	.43	3.75	1.29	.21	0.00	0.00	5.68	
	.10	.84	.29	.05	0.00	0.00	1.27	
SE	8	33	29	3	2	0	80	3.25
	.86	3.54	3.11	.86	.21	0.00	8.57	
	.19	.79	.70	.19	.05	0.00	1.92	
SSE	5	39	60	16	2	0	122	3.56
	.54	4.18	6.43	1.71	.21	0.00	13.04	
	.12	.94	1.44	.38	.05	0.00	2.93	
S	7	45	55	12	5	1	125	3.50
	.75	4.82	5.89	1.29	.54	.11	13.40	
	.17	1.08	1.32	.29	.12	.02	3.00	
SSW	11	46	50	3	0	0	110	2.97
	1.18	4.93	5.36	.32	0.00	0.00	11.79	
	.26	1.10	1.20	.07	0.00	0.00	2.64	
SW	3	25	26	4	0	0	58	3.06
	.32	2.68	2.79	.43	0.00	0.00	6.22	
	.07	.60	.62	.10	0.00	0.00	1.39	
WSW	7	15	6	1	1	0	30	2.49
	.75	1.61	.64	.11	.11	0.00	3.22	
	.17	.36	.14	.02	.02	0.00	.72	
W	13	12	12	0	0	0	37	2.32
	1.39	1.29	1.29	0.00	0.00	0.00	3.97	
	.31	.29	.29	0.00	0.00	0.00	.89	
WNW	6	24	20	2	0	0	52	2.94
	.64	2.57	2.14	.21	0.00	0.00	5.57	
	.14	.58	.48	.05	0.00	0.00	1.25	
NW	7	33	34	2	0	0	76	3.01
	.75	3.54	3.64	.21	0.00	0.00	8.15	
	.17	.79	.82	.05	0.00	0.00	1.82	
NNW	8	27	14	4	1	0	54	2.92
	.86	2.89	1.50	.43	.11	0.00	5.79	
	.19	.65	.34	.10	.02	0.00	1.30	
N	15	26	9	0	1	0	51	2.25
	1.61	2.79	.96	0.00	.11	0.00	5.47	
	.36	.62	.22	0.00	.02	0.00	1.22	
CALM	3						3	CALM
	.32						.32	
	.07						.07	
TOTAL	117	418	330	55	12	1	933	2.95
	12.54	44.80	35.37	5.89	1.29	.11	100.00	
	2.81	10.03	7.92	1.32	.29	.02	22.40	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.94

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: NOVEMBER 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.05.35.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	4	1	0	0	0	0	5	1.27
	.97	.24	0.00	0.00	0.00	0.00	1.21	
	.10	.02	0.00	0.00	0.00	0.00	.12	
NE	3	4	0	0	0	0	7	1.61
	.73	.97	0.00	0.00	0.00	0.00	1.69	
	.07	.10	0.00	0.00	0.00	0.00	.17	
ENE	1	2	2	0	0	0	5	2.61
	.24	.48	.48	0.00	0.00	0.00	1.21	
	.02	.05	.05	0.00	0.00	0.00	.12	
E	5	0	2	0	0	0	7	1.55
	1.21	0.00	.48	0.00	0.00	0.00	1.69	
	.12	0.00	.05	0.00	0.00	0.00	.17	
ESE	3	7	1	0	0	0	11	2.14
	.73	1.69	.24	0.00	0.00	0.00	2.66	
	.07	.17	.02	0.00	0.00	0.00	.26	
SE	3	23	4	1	0	0	31	2.43
	.73	5.57	.97	.24	0.00	0.00	7.51	
	.07	.55	.10	.02	0.00	0.00	.74	
SSE	7	19	17	0	0	0	43	2.55
	1.69	4.60	4.12	0.00	0.00	0.00	10.41	
	.17	.46	.41	0.00	0.00	0.00	1.03	
S	15	37	13	0	0	0	65	2.21
	3.63	8.96	3.15	0.00	0.00	0.00	15.74	
	.36	.89	.31	0.00	0.00	0.00	1.56	
SSW	12	39	7	0	0	0	58	2.15
	2.91	9.44	1.69	0.00	0.00	0.00	14.04	
	.29	.94	.17	0.00	0.00	0.00	1.39	
SW	1	42	6	0	0	0	49	2.33
	.24	10.17	1.45	0.00	0.00	0.00	11.86	
	.02	1.01	.14	0.00	0.00	0.00	1.18	
WSW	6	25	4	0	0	0	35	2.07
	1.45	6.05	.97	0.00	0.00	0.00	8.47	
	.14	.60	.10	0.00	0.00	0.00	.84	
W	7	12	4	0	0	0	23	1.99
	1.69	2.91	.97	0.00	0.00	0.00	5.57	
	.17	.29	.10	0.00	0.00	0.00	.55	
WNW	6	8	4	0	0	0	18	2.05
	1.45	1.94	.97	0.00	0.00	0.00	4.36	
	.14	.19	.10	0.00	0.00	0.00	.43	
NW	4	7	7	0	0	0	18	2.63
	.97	1.69	1.69	0.00	0.00	0.00	4.36	
	.10	.17	.17	0.00	0.00	0.00	.43	
NNW	6	14	2	0	0	0	22	1.87
	1.45	3.39	.48	0.00	0.00	0.00	5.33	
	.14	.34	.05	0.00	0.00	0.00	.53	
N	9	3	0	0	0	0	12	1.26
	2.18	.73	0.00	0.00	0.00	0.00	2.91	
	.22	.07	0.00	0.00	0.00	0.00	.29	
CALM	4						4	CALM
	.97						.97	
	.10						.10	
TOTAL	96	243	73	1	0	0	413	2.16
	23.24	58.84	17.68	.24	0.00	0.00	100.00	
	2.30	5.83	1.75	.02	0.00	0.00	9.91	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.95

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: NOVEMBER 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.05.35.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	2	0	0	0	0	0	2	.73
	1.41	0.00	0.00	0.00	0.00	0.00	1.41	
	.05	0.00	0.00	0.00	0.00	0.00	.05	
NE	1	1	0	0	0	0	2	1.29
	.70	.70	0.00	0.00	0.00	0.00	1.41	
	.02	.02	0.00	0.00	0.00	0.00	.05	
ENE	0	1	0	0	0	0	1	1.58
	0.00	.70	0.00	0.00	0.00	0.00	.70	
	0.00	.02	0.00	0.00	0.00	0.00	.02	
E	3	2	0	0	0	0	5	1.18
	2.11	1.41	0.00	0.00	0.00	0.00	3.52	
	.07	.05	0.00	0.00	0.00	0.00	.12	
ESE	9	3	0	0	0	0	12	1.32
	6.34	2.11	0.00	0.00	0.00	0.00	8.45	
	.22	.07	0.00	0.00	0.00	0.00	.29	
SE	5	14	0	0	0	0	19	1.80
	3.52	9.86	0.00	0.00	0.00	0.00	13.38	
	.12	.34	0.00	0.00	0.00	0.00	.46	
SSE	4	3	0	0	0	0	7	1.28
	2.82	2.11	0.00	0.00	0.00	0.00	4.93	
	.10	.07	0.00	0.00	0.00	0.00	.17	
S	2	5	0	0	0	0	7	1.88
	1.41	3.52	0.00	0.00	0.00	0.00	4.93	
	.05	.12	0.00	0.00	0.00	0.00	.17	
SSW	2	15	2	0	0	0	19	2.10
	1.41	10.56	1.41	0.00	0.00	0.00	13.38	
	.05	.36	.05	0.00	0.00	0.00	.46	
SW	4	8	2	0	0	0	14	2.23
	2.82	5.63	1.41	0.00	0.00	0.00	9.86	
	.10	.19	.05	0.00	0.00	0.00	.34	
WSW	3	5	1	0	0	0	9	1.72
	2.11	3.52	.70	0.00	0.00	0.00	6.34	
	.07	.12	.02	0.00	0.00	0.00	.22	
W	6	2	1	0	0	0	9	1.64
	4.23	1.41	.70	0.00	0.00	0.00	6.34	
	.14	.05	.02	0.00	0.00	0.00	.22	
WNW	1	4	1	0	0	0	6	2.34
	.70	2.82	.70	0.00	0.00	0.00	4.23	
	.02	.10	.02	0.00	0.00	0.00	.14	
NW	7	2	0	0	0	0	9	1.30
	4.93	1.41	0.00	0.00	0.00	0.00	6.34	
	.17	.05	0.00	0.00	0.00	0.00	.22	
NNW	4	2	0	0	0	0	6	1.39
	2.82	1.41	0.00	0.00	0.00	0.00	4.23	
	.10	.05	0.00	0.00	0.00	0.00	.14	
N	7	4	1	0	0	0	12	1.48
	4.93	2.82	.70	0.00	0.00	0.00	8.45	
	.17	.10	.02	0.00	0.00	0.00	.29	
CALM	3						3	CALM
	2.11						2.11	
	.07						.07	
TOTAL	63	71	8	0	0	0	142	1.67
	44.37	50.00	5.63	0.00	0.00	0.00	100.00	
	1.51	1.70	.19	0.00	0.00	0.00	3.41	

KEY xxx NUMBER OF OCCURRENCES
xxx PERCENT OCCURRENCES THIS CLASS
xxx PERCENT OCCURRENCES ALL CLASSES

TABLE 2.96

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: NOVEMBER 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.05.35.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	27 .65	72 1.73	88 2.11	42 1.01	38 .91	15 .36	282 6.77	4.59
NE	20 .48	70 1.68	53 1.27	5 .12	1 .02	0 0.00	149 3.58	2.83
ENE	21 .50	54 1.30	25 .60	6 .14	2 .05	0 0.00	108 2.59	2.61
E	11 .26	51 1.22	29 .70	3 .07	0 0.00	0 0.00	94 2.26	2.71
ESE	24 .58	79 1.90	49 1.18	18 .43	0 0.00	0 0.00	170 4.08	2.98
SE	30 .72	109 2.62	86 2.06	28 .67	2 .05	0 0.00	255 6.12	3.15
SSE	22 .53	106 2.54	136 3.26	52 1.25	4 .10	0 0.00	320 7.68	3.55
S	28 .67	129 3.10	173 4.15	81 1.94	23 .55	2 .05	436 10.47	3.87
SSW	30 .72	126 3.02	118 2.83	43 1.03	9 .22	1 .02	327 7.85	3.41
SW	10 .24	106 2.54	75 1.80	26 .62	3 .07	0 0.00	220 5.28	3.24
WSW	23 .55	65 1.56	40 .96	9 .22	5 .12	0 0.00	142 3.41	2.84
W	33 .79	51 1.22	32 .77	4 .10	0 0.00	1 .02	121 2.90	2.49
WNW	17 .41	75 1.80	63 1.51	28 .67	12 .29	0 0.00	195 4.68	3.60
NW	28 .67	81 1.94	131 3.14	103 2.47	19 .46	0 0.00	362 8.69	4.19
NNW	37 .89	110 2.64	134 3.22	138 3.31	63 1.51	9 .22	491 11.79	4.65
N	47 1.13	108 2.59	183 4.39	84 2.02	23 .55	19 .46	464 11.14	4.18
CALM	30 .72						30 .72	CALM
TOTAL	438 10.51	1392 33.41	1415 33.97	670 16.08	204 4.90	47 1.13	4166 100.00	3.69

NUMBER OF VALID OBSERVATIONS	4166	96.44 PCT.
NUMBER OF INVALID OBSERVATIONS	154	3.56 PCT.
TOTAL NUMBER OF OBSERVATIONS	4320	100.00 PCT.

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES

TABLE 2.97

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: DECEMBER 1970 - 1975

STABILITY CLASS: PASQUILL A
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.08.11.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1	3	7	3	2	0	16	4.44
	.25	.74	1.72	.74	.49	0.00	3.93	
	.02	.07	.17	.07	.05	0.00	.39	
NE	1	0	1	0	0	0	2	2.39
	.25	0.00	.25	0.00	0.00	0.00	.49	
	.02	0.00	.02	0.00	0.00	0.00	.05	
ENE	0	1	0	0	0	0	1	2.74
	0.00	.25	0.00	0.00	0.00	0.00	.25	
	0.00	.02	0.00	0.00	0.00	0.00	.02	
E	0	1	0	0	0	0	1	2.40
	0.00	.25	0.00	0.00	0.00	0.00	.25	
	0.00	.02	0.00	0.00	0.00	0.00	.02	
ESE	0	5	4	0	0	0	10	2.47
	.25	1.23	.98	0.00	0.00	0.00	2.46	
	.02	.12	.10	0.00	0.00	0.00	.24	
SE	3	11	2	4	0	0	20	3.07
	.74	2.70	.49	.98	0.00	0.00	4.91	
	.07	.26	.05	.10	0.00	0.00	.48	
SSE	0	4	7	2	0	0	13	3.56
	0.00	.98	1.72	.49	0.00	0.00	3.19	
	0.00	.10	.17	.05	0.00	0.00	.31	
S	0	5	6	0	1	0	12	3.64
	0.00	1.23	1.47	0.00	.25	0.00	2.95	
	0.00	.12	.14	0.00	.02	0.00	.29	
SSW	0	3	6	1	2	0	12	4.38
	0.00	.74	1.47	.25	.49	0.00	2.95	
	0.00	.07	.14	.02	.05	0.00	.29	
SW	1	4	2	10	4	0	21	5.46
	.25	.98	.49	2.46	.98	0.00	5.16	
	.02	.10	.05	.24	.10	0.00	.50	
WSW	0	7	6	2	0	0	15	3.47
	0.00	1.72	1.47	.49	0.00	0.00	3.69	
	0.00	.17	.14	.05	0.00	0.00	.36	
W	3	5	7	0	0	0	15	2.98
	.74	1.23	1.72	0.00	0.00	0.00	3.69	
	.07	.12	.17	0.00	0.00	0.00	.36	
WNW	6	5	12	7	1	0	31	3.82
	1.47	1.23	2.95	1.72	.25	0.00	7.62	
	.14	.12	.29	.17	.02	0.00	.74	
NW	4	11	23	26	12	0	76	5.09
	.98	2.70	5.65	6.39	2.95	0.00	18.67	
	.10	.26	.55	.62	.29	0.00	1.82	
NNW	6	16	36	38	9	2	107	4.80
	1.47	3.93	8.85	9.34	2.21	.49	26.29	
	.14	.38	.86	.91	.22	.05	2.57	
N	1	4	18	20	7	0	50	5.12
	.25	.98	4.42	4.91	1.72	0.00	12.29	
	.02	.10	.43	.48	.17	0.00	1.20	
CALM	5						5	CALM
	1.23						1.23	
	.12						.12	
TOTAL	32	85	137	113	38	2	407	4.41
	7.86	20.88	33.66	27.76	9.34	.49	100.00	
	.77	2.04	3.29	2.71	.91	.05	9.76	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.98

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: DECEMBER 1970 - 1975

STABILITY CLASS: PASQUILL B
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.08.11.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1	5	3	5	1	0	15	4.29
	.50	2.48	1.49	2.48	.50	0.00	7.43	
	.02	.12	.07	.12	.02	0.00	.36	
NE	1	0	1	0	0	0	2	1.87
	.50	0.00	.50	0.00	0.00	0.00	.99	
	.02	0.00	.02	0.00	0.00	0.00	.05	
ENE	1	1	0	0	0	0	2	1.71
	.50	.50	0.00	0.00	0.00	0.00	.99	
	.02	.02	0.00	0.00	0.00	0.00	.05	
E	1	0	0	0	0	0	1	1.35
	.50	0.00	0.00	0.00	0.00	0.00	.50	
	.02	0.00	0.00	0.00	0.00	0.00	.02	
ESE	1	0	1	0	0	0	2	2.39
	.50	0.00	.50	0.00	0.00	0.00	.99	
	.02	0.00	.02	0.00	0.00	0.00	.05	
SE	0	2	1	0	0	0	3	2.48
	0.00	.99	.50	0.00	0.00	0.00	1.49	
	0.00	.05	.02	0.00	0.00	0.00	.07	
SSE	0	1	2	0	0	0	3	3.38
	0.00	.50	.99	0.00	0.00	0.00	1.49	
	0.00	.02	.05	0.00	0.00	0.00	.07	
S	0	1	3	0	0	0	4	3.42
	0.00	.50	1.49	0.00	0.00	0.00	1.98	
	0.00	.02	.07	0.00	0.00	0.00	.10	
SSW	0	2	4	4	0	0	10	4.51
	0.00	.99	1.98	1.98	0.00	0.00	4.95	
	0.00	.05	.10	.10	0.00	0.00	.24	
SW	0	0	1	3	1	0	5	5.72
	0.00	0.00	.50	1.49	.50	0.00	2.48	
	0.00	0.00	.02	.07	.02	0.00	.12	
WSW	0	2	2	3	0	0	7	4.34
	0.00	.99	.99	1.49	0.00	0.00	3.47	
	0.00	.05	.05	.07	0.00	0.00	.17	
W	2	0	5	4	0	0	11	4.45
	.99	0.00	2.48	1.98	0.00	0.00	5.45	
	.05	0.00	.12	.10	0.00	0.00	.26	
WNW	0	3	0	2	0	2	7	5.94
	0.00	1.49	0.00	.99	0.00	.99	3.47	
	0.00	.07	0.00	.05	0.00	.05	.17	
NW	1	3	5	4	0	2	15	5.00
	.50	1.49	2.48	1.98	0.00	.99	7.43	
	.02	.07	.12	.10	0.00	.05	.36	
NNW	4	7	23	26	7	0	67	4.92
	1.98	3.47	11.39	12.87	3.47	0.00	33.17	
	.10	.17	.55	.62	.17	0.00	1.61	
N	0	7	30	10	0	0	47	4.15
	0.00	3.47	14.85	4.95	0.00	0.00	23.27	
	0.00	.17	.72	.24	0.00	0.00	1.13	
CALM	1						1	CALM
	.50						.50	
	.02						.02	
TOTAL	13	34	81	61	9	4	202	4.44
	6.44	16.83	40.10	30.20	4.46	1.98	100.00	
	.31	.82	1.94	1.46	.22	.10	4.85	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.99

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: DECEMBER 1970 - 1975

STABILITY CLASS: PASQUILL C
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.04.11.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES(METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	1	1	13	7	0	0	22	4.31
	.29	.29	3.74	2.01	0.00	0.00	6.32	
	.02	.02	.31	.17	0.00	0.00	.53	
NE	2	1	0	0	0	0	3	1.30
	.57	.29	0.00	0.00	0.00	0.00	.86	
	.05	.02	0.00	0.00	0.00	0.00	.07	
ENE	1	2	1	0	0	0	4	2.55
	.29	.57	.29	0.00	0.00	0.00	1.15	
	.02	.05	.02	0.00	0.00	0.00	.10	
E	1	3	0	0	0	0	4	1.84
	.29	.86	0.00	0.00	0.00	0.00	1.15	
	.02	.07	0.00	0.00	0.00	0.00	.10	
ESE	2	3	2	0	0	0	7	2.31
	.57	.86	.57	0.00	0.00	0.00	2.01	
	.05	.07	.05	0.00	0.00	0.00	.17	
SE	0	2	7	0	0	0	9	3.45
	0.00	.57	2.01	0.00	0.00	0.00	2.59	
	0.00	.05	.17	0.00	0.00	0.00	.22	
SSE	0	3	4	1	0	0	8	3.43
	0.00	.86	1.15	.29	0.00	0.00	2.30	
	0.00	.07	.10	.02	0.00	0.00	.19	
S	0	5	11	6	0	0	22	3.96
	0.00	1.44	3.15	1.72	0.00	0.00	6.32	
	0.00	.12	.26	.14	0.00	0.00	.53	
SSW	0	0	6	3	0	0	9	4.60
	0.00	0.00	1.72	.86	0.00	0.00	2.59	
	0.00	0.00	.14	.07	0.00	0.00	.22	
SW	0	1	6	5	1	0	13	4.68
	0.00	.29	1.72	1.44	.29	0.00	3.74	
	0.00	.02	.14	.12	.02	0.00	.31	
WSW	0	5	5	2	1	0	13	3.79
	0.00	1.44	1.44	.57	.29	0.30	3.74	
	0.00	.12	.12	.05	.02	0.00	.31	
W	2	4	1	4	0	0	11	3.44
	.57	1.15	.29	1.15	0.00	0.00	3.16	
	.05	.10	.02	.10	0.00	0.00	.26	
WNW	3	11	8	3	2	0	27	3.62
	.86	3.16	2.30	.86	.57	0.00	7.76	
	.07	.26	.19	.07	.05	0.00	.65	
NW	4	4	4	1	4	1	18	4.41
	1.15	1.15	1.15	.29	1.15	.29	5.17	
	.10	.10	.10	.02	.10	.02	.43	
NNW	1	14	34	37	4	0	90	4.73
	.29	4.02	9.77	10.63	1.15	0.00	25.86	
	.02	.34	.82	.89	.10	0.00	2.16	
N	3	20	42	19	1	1	86	4.07
	.86	5.75	12.07	5.46	.29	.29	24.71	
	.07	.48	1.01	.46	.02	.02	2.06	
CALM	2						2	CALM
	.57						.57	
	.05						.05	
TOTAL	22	79	144	88	13	2	348	4.08
	6.32	22.70	41.38	25.29	3.74	.57	100.00	
	.53	1.90	3.45	2.11	.31	.05	8.35	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.100

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: DECEMBER 1970 - 1975

STABILITY CLASS: PASQUILL D
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.08.11.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	27	61	32	19	0	0	139	2.88
	1.45	3.28	1.72	1.02	0.00	0.00	7.48	
	.65	1.46	.77	.46	0.00	0.00	3.33	
NE	14	34	9	2	0	0	59	2.28
	.75	1.83	.48	.11	0.00	0.00	3.18	
	.34	.82	.22	.05	0.00	0.00	1.42	
ENE	9	32	23	0	0	0	64	2.57
	.48	1.72	1.24	0.00	0.00	0.00	3.44	
	.22	.77	.55	0.00	0.00	0.00	1.54	
E	22	48	25	0	0	0	95	2.39
	1.18	2.58	1.35	0.00	0.00	0.00	5.11	
	.53	1.15	.60	0.00	0.00	0.00	2.28	
ESE	12	65	23	0	0	0	100	2.44
	.65	3.50	1.24	0.00	0.00	0.00	5.38	
	.29	1.56	.55	0.00	0.00	0.00	2.40	
SE	15	54	45	7	0	0	121	2.90
	.81	2.91	2.42	.38	0.00	0.00	6.51	
	.36	1.30	1.08	.17	0.00	0.00	2.90	
SSE	13	38	68	5	0	1	125	3.24
	.70	2.05	3.66	.27	0.00	.05	6.73	
	.31	.91	1.63	.12	0.00	.02	3.00	
S	13	39	79	11	1	0	143	3.35
	.70	2.10	4.25	.59	.05	0.00	7.70	
	.31	.94	1.90	.26	.02	0.00	3.43	
SSW	12	37	48	18	1	0	116	3.43
	.65	1.99	2.58	.97	.05	0.00	6.24	
	.29	.89	1.15	.43	.02	0.00	2.78	
SW	8	22	35	4	0	0	69	3.22
	.43	1.18	1.88	.22	0.00	0.00	3.71	
	.19	.53	.84	.10	0.00	0.00	1.66	
WSW	17	32	17	3	2	0	71	2.56
	.91	1.72	.91	.16	.11	0.00	3.82	
	.41	.77	.41	.07	.05	0.00	1.70	
W	28	25	14	11	2	0	80	2.79
	1.51	1.35	.75	.59	.11	0.00	4.31	
	.67	.60	.34	.26	.05	0.00	1.92	
WNW	10	20	11	14	1	0	56	3.33
	.54	1.08	.59	.75	.05	0.00	3.01	
	.24	.48	.26	.34	.02	0.00	1.34	
NW	36	32	51	34	9	0	162	3.74
	1.94	1.72	2.74	1.83	.48	0.00	8.72	
	.86	.77	1.22	.82	.22	0.00	3.89	
NNW	19	42	99	51	9	1	221	4.09
	1.02	2.26	5.33	2.74	.48	.05	11.89	
	.46	1.01	2.38	1.22	.22	.02	5.30	
N	20	51	75	40	7	3	196	3.97
	1.08	2.74	4.04	2.15	.38	.16	10.55	
	.48	1.22	1.80	.96	.17	.07	4.70	
CALM	41						41	CALM
	2.21						2.21	
	.98						.98	
TOTAL	316	632	554	219	32	5	1858	3.18
	17.01	34.02	35.20	11.79	1.72	.27	100.00	
	7.58	15.16	15.69	5.25	.77	.12	44.58	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.101

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: DECEMBER 1970 - 1975

STABILITY CLASS: PASQUILL E
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.08.11.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE J O NO. 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	13	14	1	0	0	0	28	1.68
	1.45	1.56	.11	0.00	0.00	0.00	3.11	
	.31	.34	.02	0.00	0.00	0.00	.67	
NE	9	8	0	0	0	0	17	1.44
	1.00	.89	0.00	0.00	0.00	0.00	1.89	
	.22	.19	0.00	0.00	0.00	0.00	.41	
ENE	7	11	0	0	0	0	18	1.64
	.78	1.22	0.00	0.00	0.00	0.00	2.00	
	.17	.26	0.00	0.00	0.00	0.00	.43	
E	12	17	0	0	0	0	29	1.72
	1.33	1.89	0.00	0.00	0.00	0.00	3.23	
	.29	.41	0.00	0.00	0.00	0.00	.70	
ESE	12	20	5	0	0	0	37	2.00
	1.33	2.22	.56	0.00	0.00	0.00	4.12	
	.29	.48	.12	0.00	0.00	0.00	.89	
SE	6	31	14	0	0	0	51	2.55
	.67	3.45	1.56	0.00	0.00	0.00	5.67	
	.14	.74	.34	0.00	0.00	0.00	1.22	
SSE	7	51	19	0	0	0	77	2.53
	.78	5.67	2.11	0.00	0.00	0.00	8.57	
	.17	1.22	.46	0.00	0.00	0.00	1.85	
S	22	79	36	5	0	0	142	2.57
	2.45	8.79	4.00	.56	0.00	0.00	15.80	
	.53	1.90	.86	.12	0.00	0.00	3.41	
SSW	18	52	30	7	0	0	107	2.60
	2.00	5.78	3.34	.78	0.00	0.00	11.90	
	.43	1.25	.72	.17	0.00	0.00	2.57	
SW	4	29	56	4	0	0	93	3.34
	.44	3.23	6.23	.44	0.00	0.00	10.34	
	.10	.70	1.34	.10	0.00	0.00	2.23	
WSW	10	21	20	4	0	0	55	2.82
	1.11	2.34	2.22	.44	0.00	0.00	6.12	
	.24	.50	.48	.10	0.00	0.00	1.32	
W	6	20	15	1	1	1	44	3.02
	.67	2.22	1.67	.11	.11	.11	4.89	
	.14	.48	.36	.02	.02	.02	1.06	
WNW	4	20	19	2	0	0	45	2.96
	.44	2.22	2.11	.22	0.00	0.00	5.01	
	.10	.48	.46	.05	0.00	0.00	1.08	
NW	11	11	19	2	0	0	43	2.85
	1.22	1.22	2.11	.22	0.00	0.00	4.78	
	.26	.26	.46	.05	0.00	0.00	1.03	
NNW	10	33	10	2	0	0	55	2.43
	1.11	3.67	1.11	.22	0.00	0.00	6.12	
	.24	.79	.24	.05	0.00	0.00	1.32	
N	21	12	4	0	0	0	37	1.62
	2.34	1.33	.44	0.00	0.00	0.00	4.12	
	.50	.29	.10	0.00	0.00	0.00	.89	
CALM	21						21	CALM
	2.34						2.34	
	.50						.50	
TOTAL	193	429	248	27	1	1	899	2.49
	21.47	47.72	27.59	3.00	.11	.11	100.00	
	4.63	10.29	5.95	.65	.02	.02	21.57	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.102

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: DECEMBER 1970 - 1975

STABILITY CLASS: PASQUILL F
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.08.11.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7535-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	8	2	0	0	0	0	11	1.28
	2.29	.86	0.00	0.00	0.00	0.00	3.14	
	.19	.07	0.00	0.00	0.00	0.00	.26	
NE	3	1	0	0	0	0	4	1.26
	.86	.29	0.00	0.00	0.00	0.00	1.14	
	.07	.02	0.00	0.00	0.00	0.00	.10	
ENE	1	3	0	0	0	0	4	1.61
	.29	.86	0.00	0.00	0.00	0.00	1.14	
	.02	.07	0.00	0.00	0.00	0.00	.10	
E	1	0	0	0	0	0	1	*
	.29	0.00	0.00	0.00	0.00	0.00	.29	
	.02	0.00	0.00	0.00	0.00	0.00	.02	
ESE	2	4	2	0	0	0	8	2.20
	.57	1.14	.57	0.00	0.00	0.00	2.29	
	.05	.10	.05	0.00	0.00	0.00	.19	
SE	3	9	1	0	0	0	13	2.05
	.86	2.57	.29	0.00	0.00	0.00	3.71	
	.07	.22	.02	0.00	0.00	0.00	.31	
SSE	9	13	4	0	0	0	26	2.06
	2.57	3.71	1.14	0.00	0.00	0.00	7.43	
	.22	.31	.10	0.00	0.00	0.00	.62	
S	13	21	3	0	0	0	37	1.90
	3.71	6.00	.86	0.00	0.00	0.00	10.57	
	.31	.50	.07	0.00	0.00	0.00	.89	
SSW	19	33	3	0	0	0	55	1.83
	5.43	9.43	.86	0.00	0.00	0.00	15.71	
	.46	.79	.07	0.00	0.00	0.00	1.32	
SW	4	26	13	0	0	0	43	2.42
	1.14	7.43	3.71	0.00	0.00	0.00	12.29	
	.10	.62	.31	0.00	0.00	0.00	1.03	
WSW	4	17	8	0	0	0	29	2.42
	1.14	4.86	2.29	0.00	0.00	0.00	8.29	
	.10	.41	.19	0.00	0.00	0.00	.70	
W	7	7	2	1	0	0	17	2.07
	2.00	2.00	.57	.29	0.00	0.00	4.86	
	.17	.17	.05	.02	0.00	0.00	.41	
WNW	8	8	3	0	0	0	19	1.90
	2.29	2.29	.86	0.00	0.00	0.00	5.43	
	.19	.19	.07	0.00	0.00	0.00	.46	
NW	7	13	4	0	0	0	24	2.04
	2.00	3.71	1.14	0.00	0.00	0.00	6.86	
	.17	.31	.10	0.00	0.00	0.00	.58	
NNW	9	15	0	0	0	0	24	1.51
	2.57	4.29	0.00	0.00	0.00	0.00	6.86	
	.22	.36	0.00	0.00	0.00	0.00	.58	
N	17	3	1	0	0	0	21	1.21
	4.86	.86	.29	0.00	0.00	0.00	6.00	
	.41	.07	.02	0.00	0.00	0.00	.50	
CALM	14						14	CALM
	4.00						4.00	
	.34						.34	
TOTAL	129	176	44	1	0	0	350	1.86
	36.86	50.29	12.57	.29	0.00	0.00	100.00	
	3.10	4.22	1.06	.02	0.00	0.00	8.40	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.103

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: DECEMBER 1970 - 1975

STABILITY CLASS: PASQUILL G
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.08.11.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7635-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	2	3	0	0	0	0	5	1.51
	1.92	2.88	0.00	0.00	0.00	0.00	4.81	
	.05	.07	0.00	0.00	0.00	0.00	.12	
NE	1	0	0	0	0	0	1	.47
	.96	0.00	0.00	0.00	0.00	0.00	.96	
	.02	0.00	0.00	0.00	0.00	0.00	.02	
ENE	1	0	0	0	0	0	1	1.09
	.96	0.00	0.00	0.00	0.00	0.00	.96	
	.02	0.00	0.00	0.00	0.00	0.00	.02	
E	1	0	0	0	0	0	1	.45
	.96	0.00	0.00	0.00	0.00	0.00	.96	
	.02	0.00	0.00	0.00	0.00	0.00	.02	
ESE	2	3	0	0	0	0	5	1.35
	1.92	2.88	0.00	0.00	0.00	0.00	4.81	
	.05	.07	0.00	0.00	0.00	0.00	.12	
SE	4	1	0	0	0	0	5	1.30
	3.85	.96	0.00	0.00	0.00	0.00	4.81	
	.10	.02	0.00	0.00	0.00	0.00	.12	
SSE	5	0	0	0	0	0	5	1.10
	4.81	0.00	0.00	0.00	0.00	0.00	4.81	
	.12	0.00	0.00	0.00	0.00	0.00	.12	
S	8	2	0	0	0	0	10	1.00
	7.69	1.92	0.00	0.00	0.00	0.00	9.62	
	.19	.05	0.00	0.00	0.00	0.00	.24	
SSW	2	4	1	0	0	0	7	1.93
	1.92	3.85	.96	0.00	0.00	0.00	6.73	
	.05	.10	.02	0.00	0.00	0.00	.17	
SW	3	7	0	0	0	0	10	1.79
	2.88	6.73	0.00	0.00	0.00	0.00	9.62	
	.07	.17	0.00	0.00	0.00	0.00	.24	
WSW	1	3	2	0	0	0	6	2.86
	.96	2.88	1.92	0.00	0.00	0.00	5.77	
	.02	.07	.05	0.00	0.00	0.00	.14	
W	3	5	0	0	0	0	8	1.57
	2.88	4.81	0.00	0.00	0.00	0.00	7.69	
	.07	.12	0.00	0.00	0.00	0.00	.19	
WNW	2	0	1	0	0	0	3	1.75
	1.92	0.00	.96	0.00	0.00	0.00	2.88	
	.05	0.00	.02	0.00	0.00	0.00	.07	
NW	2	3	1	0	0	0	6	1.94
	1.92	2.88	.96	0.00	0.00	0.00	5.77	
	.05	.07	.02	0.00	0.00	0.00	.14	
NNW	6	1	0	0	0	0	7	1.11
	5.77	.96	0.00	0.00	0.00	0.00	6.73	
	.14	.02	0.00	0.00	0.00	0.00	.17	
N	8	4	0	0	0	0	12	1.35
	7.69	3.85	0.00	0.00	0.00	0.00	11.54	
	.19	.10	0.00	0.00	0.00	0.00	.29	
CALM	12						12	CALM
	11.54						11.54	
	.29						.29	
TOTAL	63	36	5	0	0	0	104	1.35
	60.58	34.62	4.81	0.00	0.00	0.00	100.00	
	1.51	.86	.12	0.00	0.00	0.00	2.50	

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES THIS CLASS
XXX PERCENT OCCURRENCES ALL CLASSES

TABLE 2.104

JOINT WIND FREQUENCY DISTRIBUTION BY STABILITY CLASS
DATA PERIOD: DECEMBER 1970 - 1975

ALL CLASSES
DATA SOURCE: ON-SITE
WIND SENSOR HEIGHT: 10.67 METERS
TABLE GENERATED: 05/14/77. 12.08.11.

COOPER NUCLEAR STATION
NEMAHA, NEBRASKA
NEBRASKA PUBLIC POWER DISTRICT
DAMES AND MOORE JOB NO: 7435-001-07

WIND SECTOR	WIND SPEED CATEGORIES (METERS PER SECOND) 0.0-1.5	1.5-3.0	3.0-5.0	5.0-7.5	7.5-10.0	>10.0	TOTAL	MEAN SPEED
NNE	53 1.27	90 2.16	56 1.34	34 .82	3 .07	0 0.00	236 5.66	2.96
NE	31 .74	44 1.06	11 .26	2 .05	0 0.00	0 0.00	88 2.11	2.81
ENE	20 .48	50 1.20	24 .58	0 0.00	0 0.00	0 0.00	94 2.26	2.32
E	38 .91	69 1.66	25 .60	0 0.00	0 0.00	0 0.00	132 3.17	2.19
ESE	32 .77	100 2.40	37 .89	0 0.00	0 0.00	0 0.00	169 4.05	2.29
SE	31 .74	110 2.64	70 1.68	11 .26	0 0.00	0 0.00	222 5.33	2.76
SSE	34 .82	110 2.64	104 2.50	8 .19	0 0.00	1 .02	257 6.17	2.89
S	56 1.34	152 3.65	138 3.31	22 .53	2 .05	0 0.00	370 8.88	2.89
SSW	51 1.22	131 3.14	98 2.35	33 .79	3 .07	0 0.00	316 7.58	2.94
SW	20 .48	89 2.14	113 2.71	26 .62	6 .14	0 0.00	254 6.09	3.38
WSW	32 .77	87 2.09	60 1.44	14 .34	3 .07	0 0.00	196 4.70	2.84
W	51 1.22	66 1.58	44 1.06	21 .50	3 .07	1 .02	186 4.46	2.88
WNW	33 .79	67 1.61	54 1.30	28 .67	4 .10	2 .05	188 4.51	3.29
NW	65 1.56	77 1.85	107 2.57	67 1.61	25 .60	3 .07	344 8.25	3.87
NNW	55 1.32	128 3.07	202 4.85	154 3.69	29 .70	3 .07	571 13.70	4.12
N	70 1.68	101 2.42	170 4.08	89 2.14	15 .36	4 .10	449 10.77	3.74
CALM	96 2.30						96 2.30	CALM
TOTAL	768 18.43	1471 35.29	1313 31.50	509 12.21	93 2.23	14 .34	4168 100.00	3.13

NUMBER OF VALID OBSERVATIONS 4168 93.37 PCT.
NUMBER OF INVALID OBSERVATIONS 296 6.63 PCT.
TOTAL NUMBER OF OBSERVATIONS 4464 100.00 PCT.

KEY XXX NUMBER OF OCCURRENCES
XXX PERCENT OCCURRENCES

QUESTION 3

The discussion concerning the development of the "power factor" P(S) (as discussed on pages 1-13 and 5-47) to be used in a power law extrapolation of wind speeds measured at 96.93m to represent wind speeds at 10.67m is incomplete.

a) Identify the period of record when wind speed measurements were available from both the 10.67m and 96.93m levels used to develop P(S).

b) Provide P(S) for each stability class.

c) Compare the calculated values of P(S) at the Cooper site with those recommended in the "Recommended Guide for the Prediction of the Dispersion of Airborne Effluents" (ASME, 1968; M.E. Smith, Editor).

RESPONSE 3

a) The period of record for which wind speed was measured for both the 96.93-meter-level and the 10.67-meter-level was March 1, 1974 through December 31, 1975. This is the period used to derive the power factor P(S).

b) The following table gives the P(S) used for each stability class.

STABILITY CLASS	NUMBER OF VALUES USED TO DERIVE P(S)	P(S)
A	1,831	0.121
B	555	0.181
C	694	0.188
D	3,121	0.247
E	2,554	0.401
F	878	0.490
G	308	0.470

c) Page 3 of "Recommended Guide for the Prediction of the Dispersion of Airborne Effluents" states that P varies from 0.12 to 0.50. The P's derived from the Cooper Nuclear data are almost identical to these.

QUESTION 4

Provide the justification for the assumption that wind direction measured at the 96.93m level could be substituted directly for missing wind direction measurements at the 10.67m level (as discussed on Pages 1-13 and 5-47). Include a comparison of simultaneous measurements of wind direction from both the 96.93m and 10.67m levels. The selected period of record for these comparisons should cover a reasonable sample of atmospheric diffusion conditions.

RESPONSE 4

The wind direction over fairly smooth terrain normally changes in a clockwise sense with increasing height. The change is approximately 15 to 30 degrees between ground level and the gradient level of 500 to 600 meters. The change in direction may be greater and more complicated in irregular terrain, especially during stable conditions where the low-level flow patterns are separate from the patterns aloft.

If one were to assume the above numbers, a change in direction of 0.05 degrees per meter would occur. Thus, the nominal change in wind direction from 96.93 to 10.67 meters would be less than 1 degree, which is less than the accuracy of the instrument. Thus, wind direction was substituted directly from one level to the other in the x/Q calculations.

To respond to the NRC's question, however, we calculated the Root Mean Square difference and the difference considering the sign (plus or minus) of the wind between the two levels. Data for the period March 1974 through December 1975 were used and separated by stability classes. The results are as follows:

STABILITY CLASS	RMS	TRUE DIFFERENCE (Includes Sign Upper Minus Lower)
A	26.4	- 3.4
B	23.2	1.8
C	28.7	0.4
D	36.4	1.2
E	48.6	6.6
F	69.1	7.1
G	96.4	17.1
ALL	44.5	2.8

The large differences in the two wind directions are unexplainable at this time.

QUESTION 5

Section 3.4 states that whenever temperature gradient measurements between the 10.67m and 96.93m levels were not available, measurements between the 47.24m and 96.93m levels were substituted. Indicate the amount of missing temperature gradient data between the 10.67m and 96.93m levels that was substituted by measurements between the 47.24m and 96.93m levels.

RESPONSE 5

Eleven hundred forty-seven (1147) or 2.2 percent of the 10.67 to 96.93-meter temperature difference data were missing; of this, 223 hours (or 19 percent) of the missing 47.24 to 96.93-meter temperature differences were substituted to determine the stability parameter.

QUESTION 6

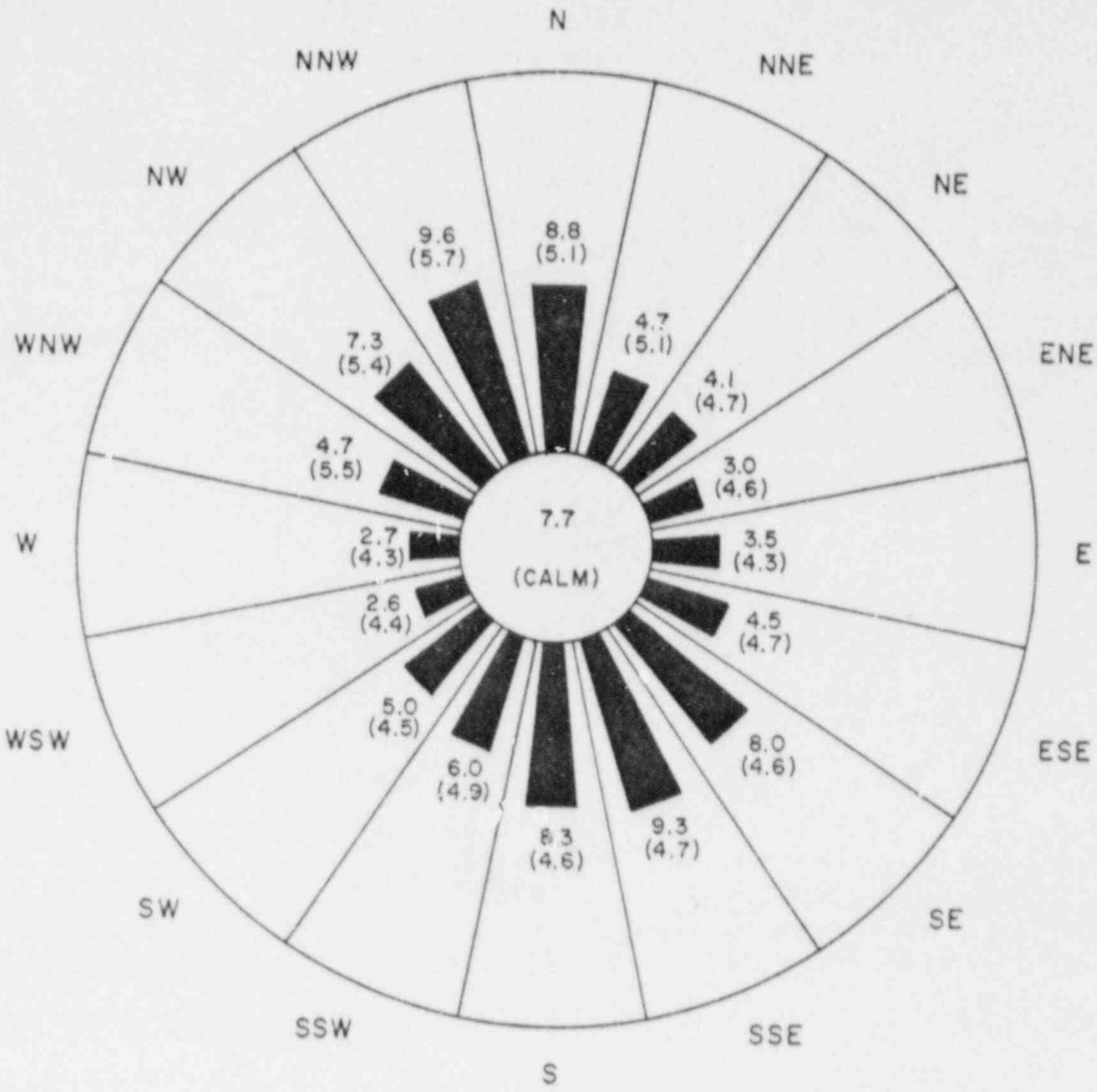
From the wind data available in Table 5.8 (96.93m) and Table 5.112 (10.67m), it appears that the Cooper site experiences the pronounced bimodal wind characteristics that is usually associated with valley flow patterns. For example, at the 96.93m level, winds from the south-southeast, south, and south-southwest total about 31%, and winds from the north-northwest, north, and north-northeast total about 25%. The 10.67m level indicates a similar pattern with winds from the south-southeast, south, and south-southwest totaling about 34%, and winds from the north-northwest, north, and north-northeast totaling about 26%. Provide further justification for the assumption made in Section 3.3 that correction factors for open terrain from Figure 2 of Regulatory Guide 1.111 were applicable, rather than the valley flow correction factors provided on Page 1.111-9 of Regulatory Guide 1.111.

RESPONSE 6

The wide, low valley of the Missouri River on which the Cooper Nuclear Station is located would not be expected to produce the valley drainage winds under stable atmospheric conditions at night for which the terrain correction factor of 5 applies. The reason for the frequency

distribution that might indicate a valley bimodal flow characteristics is that this is the normal climatological wind frequency characteristic of the Nebraska-Missouri region. Figures 6.1 and 6.2 show the annual wind roses for Lincoln, Nebraska, and the 96.93-meter-level of the Cooper Nuclear wind system, respectively. It can be seen that Lincoln, located completely out of a valley but within the same climatological region, has very similar wind distributions.

To further help in understanding the flow characteristics of the Cooper Nuclear Station, a stability wind rose of the 96.93-meter-level using both F and G stability classes, those that would occur during valley drainage wind periods, was derived and shown on Figure 6.3. It can be seen that, although there is a definite peak in the normal south to southwest flows, there is also a very definite lack of a north sector flow. The latter flows would be those of the drainage flow pattern. There is, therefore, no support of a bimodal flow pattern at the Cooper Nuclear Station.



KEY:

5.3 FREQUENCY (PERCENT)

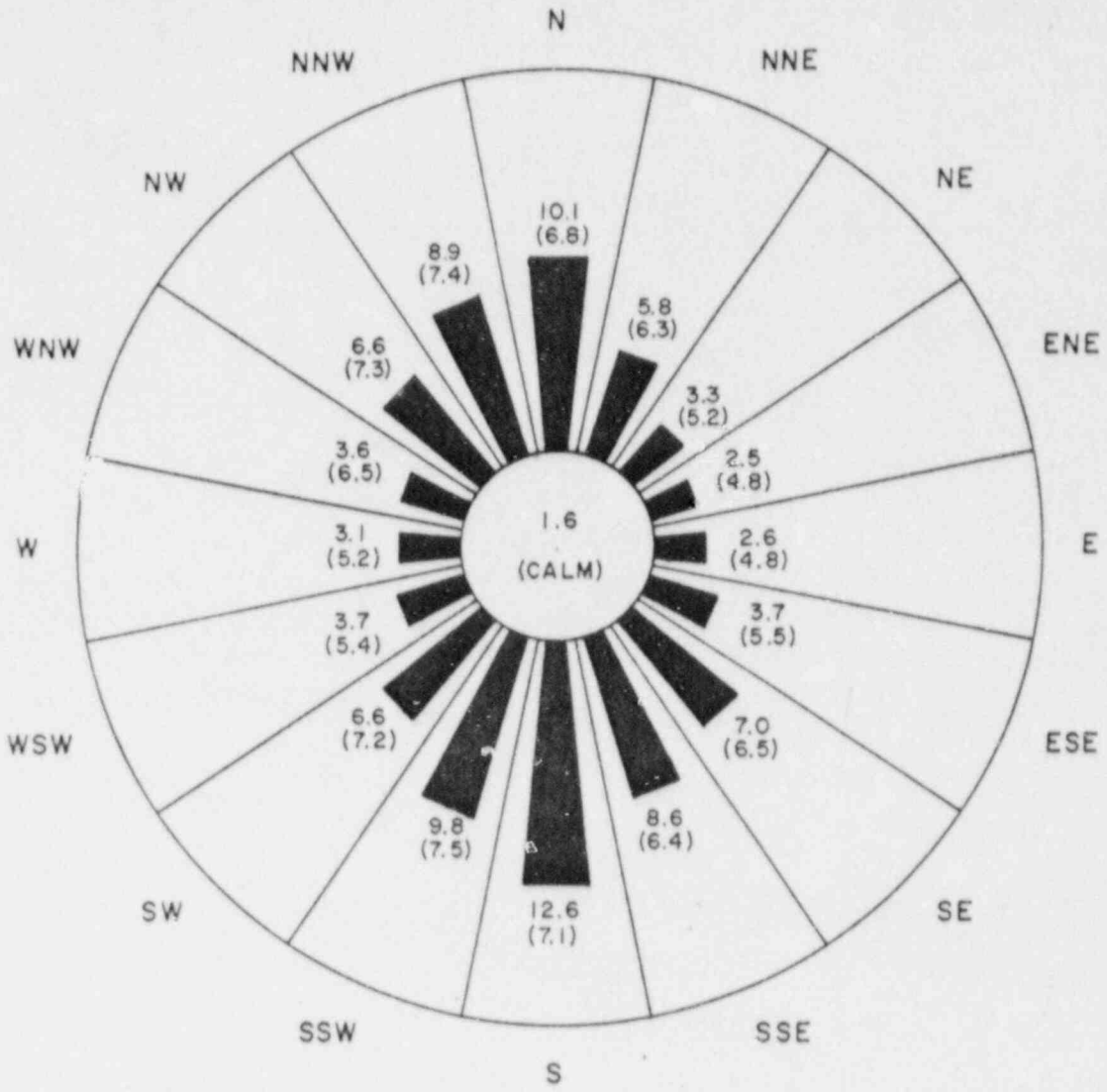
(2.8) MEAN SPEED (MPS)

FIGURE 6.1
WIND FREQUENCY DISTRIBUTION
LINCOLN AFB, LINCOLN, NEBRASKA

OCTOBER, 1942-AUGUST, 1945 AND JANUARY, 1948-JUNE, 1955
SURFACE WIND SENSOR HEIGHT
ALL STABILITY CLASSES

7635-002-07

DAMES & MOORE



KEY:

5.3 FREQUENCY (PERCENT)

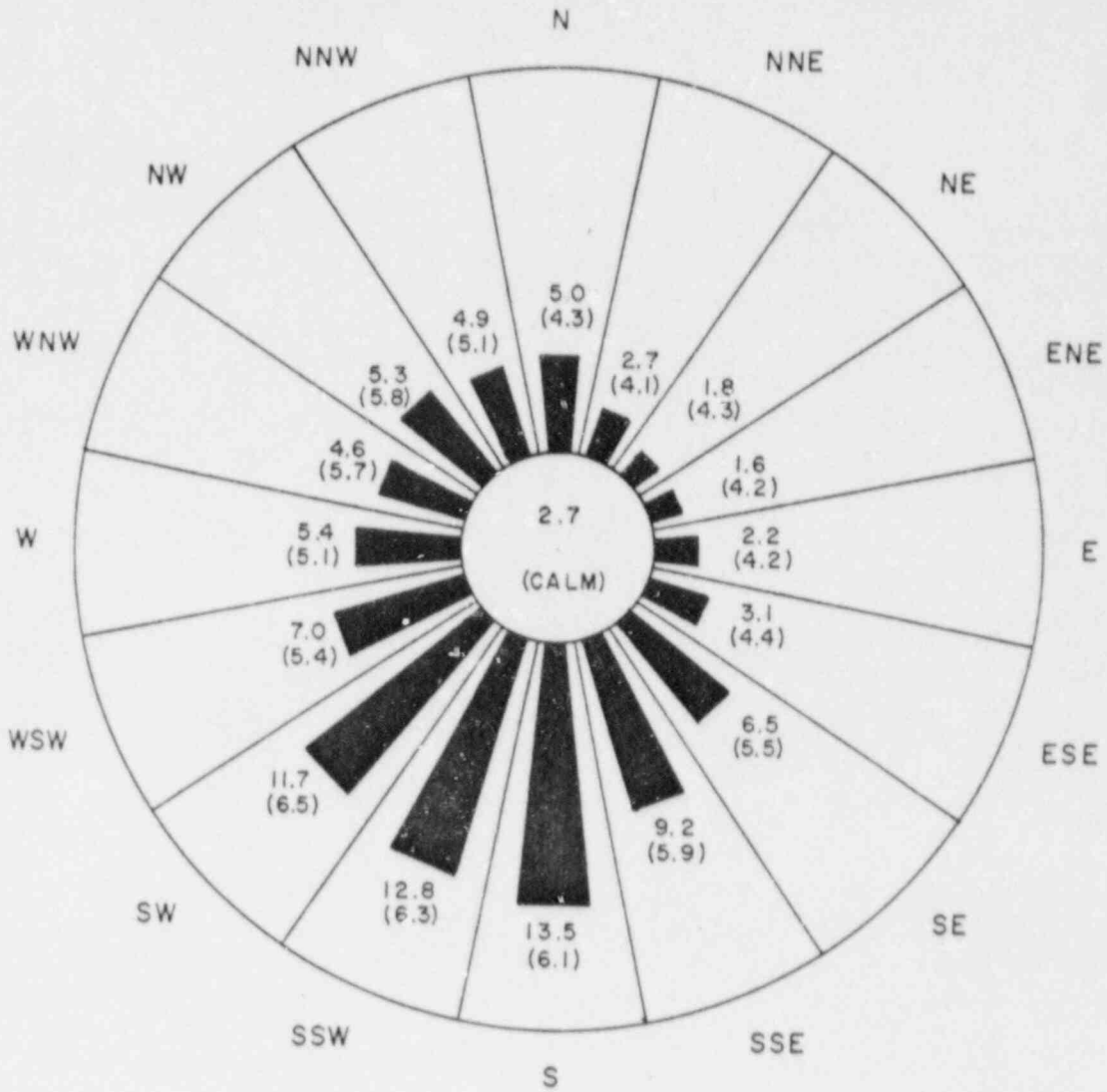
(2.8) MEAN SPEED (MPS)

FIGURE 6.2
WIND FREQUENCY DISTRIBUTION
COOPER NUCLEAR STATION
NEBRASKA PUBLIC POWER DISTRICT

MARCH 1, 1970 - DECEMBER 31, 1975
96.93 METER WIND SENSOR HEIGHT
ALL STABILITY CLASSES

7635-002-07

DAMES & MOORE



KEY:

5.3 FREQUENCY (PERCENT)

(2.8) MEAN SPEED (MPS)

FIGURE 6.3
WIND FREQUENCY DISTRIBUTION
COOPER NUCLEAR STATION
NEBRASKA PUBLIC POWER DISTRICT

MARCH 1, 1970 - DECEMBER 31, 1975
96.93 METER WIND SENSOR HEIGHT
STABILITY CLASSES F AND G

7635-002-07

DAMES & MOORE

QUESTION 7

From the discussion of the location of the meteorological instrumentation provided on page 5-45, and the information provided in Figure 4.1, it is not clear that current meteorological measurements at the Cooper site are representative of conditions away from the plant structures. The lower level sensors could be significantly influenced by plant structures resulting in perturbed wind flow characteristics and non-representative measurements of vertical temperature gradient.

a) Discuss the location of the meteorological instrumentation in more detail, considering particularly the presence of nearby structures that could influence wind and temperature measurements, and indicate why this data collection program is considered to provide representative measurements.

b) Provide a figure showing the location of the meteorological sensors with respect to elevations of nearby structures.

RESPONSE 7

a) The 10.67-meter-level instruments are not located on the Elevated Release Point tower but are located on a pole as shown on Figures 7.1 and 7.2 to be approximately 1250 feet southwest of the Reactor Building, which is 146 feet above the plant base level of 903 feet MSL. This distance is within the generally accepted rule-of-thumb, which says that wind flow at a distance downwind that is

equa_ to 5 to 10 times the height of the building or obstacle that perturbed the flow, has returned to its unperturbed nature. Thus, the buildings of the Cooper Nuclear Station do not have an effect on the 10.67-meter wind measurements.

7635-002-07

FIGURE 7.1
GENERAL PLAN VIEW
COOPER NUCLEAR STATION
NEBRASKA PUBLIC POWER DISTRICT

DRAWING REFERENCE:

TITLED: CIVIL, OVERALL SITE AND VICINITY PLAN
BY: BURNS AND ROE, INC.
ENGINEERS AND CONSTRUCTORS
FOR: CONSUMERS PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
DRAWING NO.: NO(1), REV. 14
DATED: 8-28-75

DAMES & MOORE

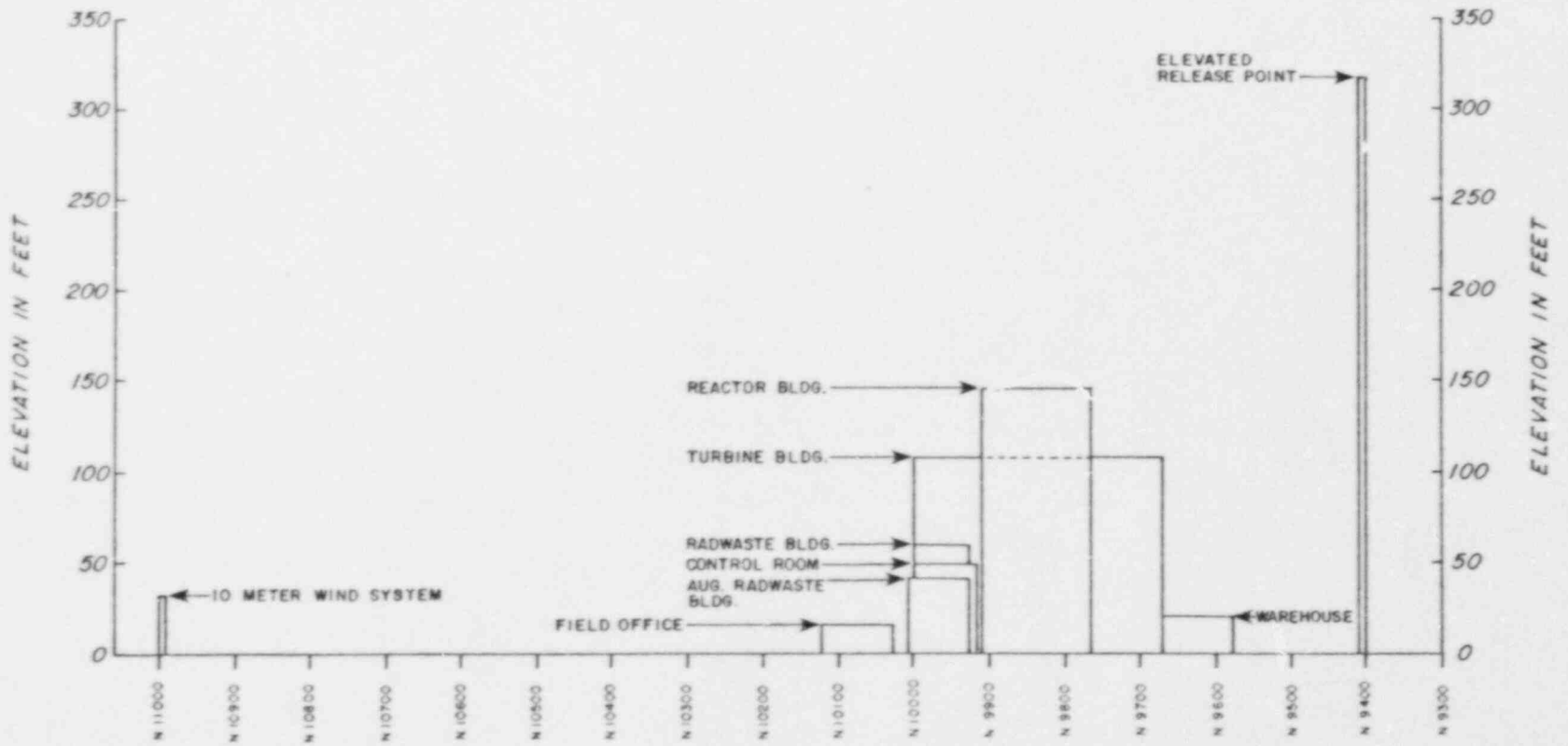


FIGURE 7.2
GENERAL PROFILE VIEW
COOPER NUCLEAR STATION
NEBRASKA PUBLIC POWER DISTRICT

DAMES & MOORE

QUESTION 8

The discussion of the meteorological instrumentation on page 5-46 does not indicate the accuracies of the sensors. Identify the meteorological sensors by manufacturer and model, including accuracy, and compare the accuracy of the entire data collection system for each parameter with the system accuracies recommended in Regulatory Guide 1.23.

RESPONSE 8

Table 8.1 lists the meteorological instrumentation used at the Cooper Nuclear Station with manufacturer, model numbers, accuracies and a comparison to Regulatory Guide 1.23 values.

TABLE 8.1

TOWER MOUNTED EQUIPMENT

Measurement	Level (meters)	Instrument	Manufacturer	Model Number	Accuracy	Threshold	Calibrated Range	Regulatory Guide 1.23 Instrument Accuracies
Wind Speed/ Direction	96.93	Precision Wind Vane, Anemometer	Bendix	120	0-10 mph, ±0.5 mph 10-200 mph ±1.0 mph	1.0 mph	0-100 mph	±0.5 mph/±5°
Wind Speed[a]	10.67	Precision Cup Anemometer	Teledyne Geotech	50.1	±0.15 mph	0.5 mph	0-90 mph	±0.5 mph
Wind Direction[a]	10.67	Precision Wind Vane	Teledyne Geotech	50.2	±2°	0.8 Km/h	0-540°	±5°
Temperature	10.67	Shielded Aspirated RTD	Rosemount	104MB	±0.26°C @0°C	N/A	-100 to +500°C	±0.5°C
Temperature Difference, ΔT	96.93-10.67	Shielded, Aspirated RTD	Rosemount	104MB	±0.26°C @0°C	N/A	-20°F to +120°F	±0.1°C
Precipitation[b]	Surface	Tipping Bucket Rainage	Meteorology Research, Inc.	302	±3% @ 3"/hr	0.01"	0.01" to 73"/hr	N/A

[a] These are mounted on a separate pole.
[b] Mounted on warehouse building.

TABLE 8.1 (continued)

ALLIED EQUIPMENT

Measurement	Level (meters)	Instrument	Manufacturer	Model Number	Accuracy	Threshold	Calibrated Range
Temperature Difference, ΔT	96.93-10.67	Linear Bridge	Rosemount	414L	0.1%	N/A	-100 to +500°C
Temperature Difference, ΔT	96.93-10.67	Recorder	Honeywell	c	N/A	N/A	-15°F to 20°F
Rainfall	SFC	Recorder	Science Associates	d	N/A	N/A	N/A
Temperature	96.93	Recorder	Honeywell	c	N/A	N/A	-20°F to 120°F
Wind Direction, Speed	96.93	Recorder	Bendix	141-5	0-10 mph, ±0.5 mph - 10-100 mph, ±1.0 mph	N/A	0-100 mph
Thermal Shield	10.67; 96.93	Aspirator Thermal Shield	Packard Bell	M327	N/A	N/A	N/A
Wind Direction, Speed	10.67	Recorder	Esterline Angus	Σ1102K	Better than ±1%	N/A	--
Power Supply	N/A	All Processor Modules	Teledyne Geotech	48.11	±10%	N/A	1.3A of +12VDC 0.75A of -12VDC 3A of chrono Pen power
Wind Direction Converter	10.67; 96.93	540° Converter	Teledyne Geotech	40.21-3	N/A	N/A	N/A

[c] Y153 039 26-04-30-0-000-006
[d] 7407A12 AK 1XX
40x 1878

TABLE 8.1 (continued)

ALLIED EQUIPMENT

Measurement	Level (meters)	Instrument	Manufacturer	Model Number	Accuracy	Threshold	Calibrated Range
Wind Speed, Signal Processor	10.67; 96.93	--	Teledyne Geotech	40-11C	±0.1%	N/A	0-100 mph
Wind Direction, Signal Processor	10.67; 96.93	--	Teledyne Geotech	40.21-A-1	±0.1%	N/A	$0-360^0$

QUESTION 9

The data necessary for joint frequency distributions of wind speed and wind direction at the 10.67m level by atmospheric stability (Tables 5.105 - 5.112) for the period of record 3/1/74 - 12/31/75 was only 65%. Identify the causes of instrument outage, the dates and times of significant instrument outage, and the corrective action taken to minimize recurrences of prolonged instrument outage.

RESPONSE 9

Tables 9.1 through 9.6 give the periods of data outages for the 10.67-meter and 96.93-meter wind direction and wind speed; and the delta temperature between 10.67 and 96.93 meters and between 51.2 and 96.93 meters. The upper-level data are included as they were substituted when the lower-level data was missing.

Data outages for periods of 6 hours or longer are listed in the tables. The 6-hour period was chosen arbitrarily.

During the period of March 1, 1974 through December 31, 1975, after installation and start-up of the 11-meter wind system, a 60 Hz noise in the system from nearby power lines may have accounted for many of the outages for which no corrective action was taken.

There is no documentation of outages or problems with the 96.93-meter wind speed and direction monitor during the

period in question. During 1974 and 1975 there were several cases of chart inking problems which could account for many of the short outages. There was also a question of whether the chart speed was correct. This was traced to the manner with which various people marked the charts. The problems have been corrected by more frequent recorder surveillance and instructing the operators to mark charts in a consistent manner.

Although the data validity percentages for 1974 and 1975 tend to be less than 90%, data for 1976 and the first quarter of 1977 have had excellent recovery. The validity percentages for the five quarters from January 1976 through March 1977 are generally greater than 95% with the exception of the first quarter of 1976 (84%) when the tail of the 35-foot wind direction monitor failed, requiring several days to repair.

TABLE 9.1

PERIODS OF DATA OUTAGE FOR THE 97-METER WIND SPEED[a]

Date of Outages (month/day/year/hour) From	To	Number of Hours	Cause[b]	Corrective Action[b]
03/07/70/03	03/07/70/12	10		
03/19/70/17	03/22/70/12	68		
04/04/70/02	04/04/70/12	11		
04/12/70/10	04/12/70/17	8		
05/01/70/03	05/01/70/14	12		
05/03/70/11	05/04/70/01	15		
08/09/70/18	08/10/70/07	14		
09/02/70/09	09/02/70/15	7		
10/26/70/18	10/27/70/08	15		
10/27/70/21	10/28/70/06	10		
11/25/70/02	11/25/70/07	6		
12/04/70/11	12/05/70/14	28		
01/12/71/02	01/12/71/08	7		
02/02/71/00	02/02/71/08	9		
03/27/71/23	03/28/71/12	14		
06/19/71/00	06/19/71/08	9		
09/30/71/16	10/01/71/07	16		
11/21/71/10	11/22/71/08	23		
04/05/72/00	04/05/72/07	8		
12/08/72/18	12/09/72/13	20		
12/22/72/19	12/23/72/13	19		

[a] The data used in this analysis covers from March 1, 1970 through December 31, 1975.

[b] There is no documentation of the causes or corrective actions taken of this parameter.

TABLE 9.1 (continued)

Date of Outages (month/day/year/hour)		Number of Hours	Cause[b]	Corrective Action[b]
From	To			
01/03/73/08	01/05/73/19	60		
02/03/73/14	02/04/73/00	11		
04/05/73/17	04/05/73/23	7		
04/08/73/18	04/08/73/23	6		
05/11/73/00	05/12/73/00	25		
06/10/73/00	06/10/73/05	6		
06/10/73/20	06/11/73/07	12		
07/02/73/02	07/02/73/08	7		
07/10/73/09	07/10/73/14	6		
08/27/73/02	08/31/73/13	108		
09/10/73/14	09/10/73/19	6		
10/01/73/10	10/02/73/06	21		
10/18/73/03	10/18/73/16	14		
11/03/73/12	11/04/73/01	14		
11/20/73/12	11/20/73/21	10		
12/19/73/11	12/19/73/16	6		
01/21/74/11	01/21/74/23	13		
02/06/74/10	02/06/74/19	10		
02/23/74/02	02/23/74/10	9		
03/22/74/18	03/22/74/23	6		
04/08/74/10	04/09/74/08	23		
05/10/74/23	05/11/74/04	6		
05/17/74/02	05/17/74/08	7		
05/27/74/10	05/27/74/23	14		
06/13/74/10	06/14/74/00	15		
06/30/74/02	06/30/74/23	22		
07/16/74/18	07/17/74/08	15		
08/18/74/01	08/18/74/23	23		
09/03/74/18	09/04/74/08	15		
09/20/74/10	09/21/74/17	32		

TABLE 9.1 (continued)

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause[b]	Corrective Action[b]
10/08/74/02	10/08/74/19	18		
10/24/74/09	10/26/74/14	54		
11/10/74/20	11/11/74/01	6		
11/27/74/03	11/27/74/10	8		
12/13/74/18	12/14/74/08	15		
12/29/74/19	12/30/74/01	7		
01/31/75/02	01/31/75/14	13		
01/31/75/17	02/02/75/00	32		
04/03/75/18	04/04/75/07	14		
04/20/75/18	04/20/75/23	6		
05/07/75/03	05/08/75/07	29		
05/24/75/03	05/24/75/08	6		
06/09/75/16	06/10/75/00	9		
09/19/75/18	09/20/75/09	16		
10/06/75/03	10/06/75/16	14		
10/07/75/09	10/07/75/14	6		
10/22/75/23	10/23/75/17	19		
11/09/75/05	11/09/75/14	10		

TABLE 9.2

PERIODS OF DATA OUTAGE FOR THE 97-METER WIND DIRECTION[a]

Date of Outages (month/day/year/hour) From	To	Number of Hours	Cause[b]	Corrective Action[b]
03/01/70/13	03/02/70/08	20		
03/06/70/14	03/06/70/19	6		
03/07/70/03	03/07/70/12	10		
03/19/70/17	03/22/70/12	68		
03/27/70/02	03/27/70/08	7		
04/01/70/12	04/02/70/08	21		
04/04/70/02	04/04/70/12	11		
04/09/70/12	04/09/70/18	7		
04/12/70/10	04/12/70/17	8		
05/01/70/03	05/01/70/14	12		
05/03/70/10	05/04/70/01	16		
05/07/70/17	05/08/70/07	15		
05/10/70/11	05/11/70/07	21		
05/30/70/06	05/30/70/12	7		
06/19/70/12	06/20/70/09	2[illegible]		
07/07/70/20	07/08/70/06	11		
08/09/70/18	08/10/70/07	14		
09/02/70/09	09/02/70/15	7		
10/22/70/22	10/23/70/07	10		
10/24/70/17	10/25/70/10	18		
10/26/70/18	10/27/70/08	15		
10/27/70/21	10/28/70/06	10		
11/25/70/02	11/25/70/07	6		
12/04/70/11	12/05/70/14	28		
12/14/70/03	12/14/70/10	8		

[a]The data used in this analysis covers March 1, 1970 through December 31, 1975.

[b]There is no documentation of the causes or corrective actions taken of this parameter.

TABLE 9.2 (continued)

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause[b]	Corrective Action[b]
01/09/71/13	01/10/71/09	21		
01/12/71/02	01/12/71/08	7		
02/02/71/00	02/02/71/08	9		
03/27/71/23	03/28/71/12	14		
04/24/71/11	04/24/71/18	8		
05/03/71/18	05/04/71/07	14		
06/01/71/00	09/17/71/13	2606		
09/30/71/16	10/01/71/07	16		
11/21/71/10	11/22/71/08	23		
12/22/71/14	12/23/71/04	15		
01/21/72/15	01/22/72/00	10		
01/23/72/13	01/24/72/08	20		
03/29/72/14	03/30/72/00	11		
03/30/72/13	03/30/72/21	9		
04/02/72/00	04/02/72/06	7		
/05/72/00	04/05/72/07	8		
05/09/72/01	05/09/72/10	10		
05/25/72/04	05/25/72/09	6		
05/31/72/03	05/31/72/09	7		
07/04/72/22	07/05/72/11	14		
07/09/72/22	07/10/72/04	7		
07/13/72/09	07/13/72/16	8		
07/29/72/15	07/29/72/21	7		
08/09/72/03	08/09/72/08	6		
11/22/72/02	11/22/72/07	6		
12/08/72/18	12/09/72/13	20		
12/22/72/19	12/23/72/13	19		
01/03/73/08	01/05/73/19	60		
02/03/73/14	02/04/73/00	11		

TABLE 9.2 (continued)

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause[a]	Corrective Action[b]
02/09/73/08	02/09/73/17	10		
03/23/73/22	03/24/73/16	19		
04/08/73/18	04/08/73/23	6		
06/10/73/00	06/10/73/05	6		
06/10/73/20	06/11/73/07	12		
08/11/73/07	08/12/73/06	24		
08/27/73/02	08/31/73/13	108		
09/05/73/20	09/06/73/03	8		
09/06/73/08	09/06/73/14	7		
10/01/73/10	10/02/73/06	21		
10/09/73/04	10/10/73/12	33		
10/18/73/03	10/18/73/16	14		
11/03/73/12	11/04/73/01	14		
11/20/73/12	11/20/73/21	10		
12/10/73/06	12/10/73/21	16		
12/19/73/11	12/19/73/16	6		
12/22/73/15	12/22/73/20	6		
01/21/74/11	01/21/74/23	13		
01/27/74/17	01/28/74/01	9		
02/06/74/10	02/06/74/19	10		
02/23/74/02	02/23/74/10	9		
03/17/74/05	03/17/74/11	7		
03/22/74/18	03/22/74/23	6		
04/08/74/10	04/09/74/08	3		
04/16/74/14	04/16/74/20	7		
05/10/74/23	05/11/74/04	6		
05/27/74/10	05/27/74/23	14		
06/01/74/13	06/01/74/20	8		
06/11/74/02	06/11/74/07	6		
06/13/74/10	06/14/74/00	15		

TABLE 9.2 (continued)

Date of Outage (month/day/year/hour)		Number of	Cause[b]	Corrective Action[b]
From	To	Hours		
06/30/74/02	06/30/74/23	22		
07/14/74/13	07/15/74/12	24		
07/16/74/18	07/17/74/08	15		
08/18/74/01	08/18/74/23	23		
09/03/74/18	09/04/74/08	15		
09/20/74/10	09/21/74/17	32		
10/06/74/00	10/07/74/10	35		
10/08/74/02	10/08/74/19	18		
10/24/74/09	10/26/74/14	54		
12/13/74/18	12/14/74/08	15		
12/19/74/09	12/20/74/11	27		
01/31/75/02	01/31/75/14	13		
02/21/75/17	02/22/75/00	8		
03/03/75/02	03/03/75/07	6		
03/23/75/13	03/24/75/03	15		
04/03/75/18	04/04/75/07	14		
04/20/75/18	04/20/75/23	6		
05/07/75/03	05/08/75/07	29		
05/24/75/03	05/24/75/08	6		
06/09/75/16	06/10/75/00	9		
08/13/75/13	08/14/75/02	14		
09/19/75/18	09/20/75/09	16		
10/06/75/03	10/06/75/16	14		
10/22/75/23	10/23/75/17	19		
11/09/75/05	11/09/75/14	10		
12/27/75/01	12/27/75/07	7		

TABLE 9.3

PERIODS OF DATA OUTAGE FOR THE 11 - 97 METER DELTA-T[a]

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause[b]	Corrective Action[b]
05/03/70/11	05/04/70/01	15		
09/02/70/09	09/02/70/14	6		
12/15/70/09	12/15/70/15	7		
02/08/71/01	02/08/71/09	9		
04/07/71/00	04/07/71/08	9		
04/18/71/10	04/18/71/17	8		
11/10/71/20	11/11/71/08	13		
01/04/72/23	01/05/72/08	10		
01/11/72/07	01/11/72/15	9		
01/12/72/09	01/13/72/09	25		
07/17/72/05	07/17/72/13	9		
07/30/72/17	07/31/72/05	13		
09/11/72/19	09/12/72/00	6		
10/24/72/20	10/25/72/03	8		
12/08/72/18	12/09/72/14	21		
12/22/72/19	12/23/72/13	19		
06/16/73/00	06/16/73/11	12		
07/02/73/01	07/02/73/08	8		
08/27/73/21	08/31/73/15	91		
09/19/73/08	09/19/73/15	8		
09/29/73/13	09/30/73/11	23		
01/11/74/14	01/13/74/01	36		
01/29/74/17	01/30/74/16	24		
03/19/74/12	03/20/74/05	18		
04/28/74/08	04/29/74/00	17		

[a]The data used in this analysis covers March 1, 1970 through December 31, 1975.

[b]There is no documentation of the causes or corrective actions taken of this parameter.

TABLE 9.3 (continued)

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause[b]	Corrective Action[b]
06/16/74/20	06/17/74/02	7		
06/24/74/17	06/24/74/23	7		
06/25/74/03	06/25/74/10	8		
06/26/74/20	06/27/74/06	11		
07/06/74/15	07/07/74/02	12		
09/18/74/18	09/20/74/06	37		
09/21/74/02	09/23/74/06	53		
09/25/74/22	09/26/74/07	10		
10/21/74/18	10/21/74/23	6		
12/12/74/04	12/12/74/10	7		
12/22/74/11	12/22/74/18	8		
02/10/75/08	02/10/75/14	7		
04/30/75/19	05/01/75/05	11		
09/29/75/17	10/02/75/06	62		
10/22/75/18	10/23/75/12	19		
12/06/75/17	12/07/75/15	23		

TABLE 9.4

PERIODS OF DATA OUTAGE FOR THE 11-METER WIND SPEED[a]

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause	Corrective Action
03/06/74/00	04/03/74/10	683	Electronic chassis failure.	Sent it back to vendor to rebuild.
06/06/74/02	06/17/74/14	277	Lightning destroyed transmitter.	Ordered spare and installed.
07/08/74/04	07/08/74/17	14		
07/09/74/21	07/10/74/09	13		
07/11/74/07	07/15/74/07	97		
08/02/74/23	08/03/74/11	13		
08/04/74/12	08/05/74/13	26		
08/08/74/00	08/08/74/06	7		
08/09/74/04	08/09/74/11	8		
08/09/74/17	08/10/74/09	17		
08/16/74/20	08/17/74/08	13		
08/21/74/14	08/22/74/05	16		
08/22/74/20	08/24/74/13	42		
09/02/74/14	09/06/74/11	94		
09/07/74/00	09/09/74/11	60		
09/09/74/16	09/10/74/08	17	Instrument was out of service periodically to investigate and correct a problem with 60 Hz noise.	The instrument was rebuilt to eliminate several chassis grounds which caused the 60 Hz noise.
09/15/74/20	09/19/74/20	97		
09/23/74/20	09/24/74/08	13		
09/24/74/18	09/26/74/10	41		
09/28/74/03	09/30/74/01	47		
09/30/74/16	10/02/74/01	34	"	"
10/06/74/21	10/07/74/08	12	"	"
10/09/74/16	10/10/74/05	14	"	"

[a]The data used in this analysis covers from March 1, 1974 through December 31, 1975.

TABLE 9.4 (continued)

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause	Corrective Action
10/13/74/19	10/14/74/02	8	Instrument was out of service periodically to investigate and correct a problem with 60 Hz noise.	The instrument was rebuilt to eliminate several chassis grounds which caused the 60 Hz noise.
10/14/74/04	10/14/74/09	6		
10/17/74/17	10/17/74/22	6		
10/18/74/01	10/18/74/06	6		
10/19/74/02	10/21/74/03	50		
10/30/74/14	11/01/74/14	49		
11/10/74/08	11/14/74/07	96		
11/15/74/10	11/23/74/04	187		
11/24/74/03	11/30/74/12	154		
12/24/74/13	12/26/74/17	53		
01/02/75/07	01/05/75/06	72		
01/06/75/01	01/20/75/20	356		
01/21/75/16	02/03/75/23	320		
02/06/75/09	02/06/75/23	15		
02/11/75/02	02/21/75/14	253		
02/21/75/17	02/25/75/01	81		
02/25/75/08	03/04/75/09	170		
03/06/75/22	03/07/75/10	13		
03/08/75/00	03/09/75/09	34		
03/16/75/13	03/17/75/07	19		
03/18/75/08	03/26/75/08	193		
04/27/75/08	04/28/75/05	22		
05/03/75/12	05/03/75/19	8		
05/06/75/19	05/11/75/06	108		
05/12/75/02	05/12/75/07	6		
05/24/75/13	05/25/75/10	22		
05/26/75/00	05/27/75/13	38		
06/01/75/05	06/01/75/17	13		
06/02/75/15	06/03/75/15	25		
06/04/75/04	06/06/75/06	51		

TABLE 9.4 (continued)

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause	Corrective Action
06/11/75/20	06/16/75/02	103		
06/17/75/01	06/17/75/10	10		
06/18/75/09	06/24/75/13	149		
07/01/75/22	07/02/75/08	11		Insulated cross arm from the pole to eliminate intermittent grounded signal.
08/08/75/15	08/09/75/00	10		
09/01/75/20	09/02/75/10	15		
09/02/75/23	09/04/75/01	27		Further insulated cross arm from the pole to eliminate intermittent grounded signal.
09/04/75/04	09/04/75/16	13		
09/16/75/00	09/16/75/20	21		
10/06/75/08	10/06/75/16	9		
10/07/75/09	10/07/75/14	6		
10/23/75/11	10/23/75/18	8		
11/08/75/17	11/09/75/00	6		
11/29/75/22	11/30/75/18	21		
12/12/75/10	12/31/75/23	470		

TABLE 9.5

PERIODS OF DATA OUTAGE FOR THE 11-METER WIND DIRECTION[a]

Date of Outages (month/day/year/hour) From	To	Number of Hours	Cause	Corrective Action
03/04/74/04	03/05/74/00	21		
03/06/74/00	04/03/74/10	683	Electronic chassis failure.	Sent it back to vendor to rebuild.
04/22/74/02	04/22/74/07	6		
04/28/74/21	04/29/74/07	11		
05/22/74/00	05/22/74/06	7		
06/06/74/02	06/17/74/14	277	Lightning destroyed transmitter.	Ordered spare and installed.
07/08/74/04	07/08/74/17	14		
07/09/74/21	07/10/74/09	13		
07/11/74/07	07/15/74/07	97		
08/02/74/23	08/03/74/11	13		
08/18/74/00	08/18/74/07	8		
09/28/74/03	09/30/74/01	47	Instrument was out of service periodically to investigate and correct a problem with 60 Hz noise.	The instrument was rebuilt to eliminate several chassis grounds which caused the 60 Hz noise.
10/17/74/17	10/17/74/22	6		
10/18/74/01	10/18/74/06	6		
10/19/74/02	10/21/74/03	50		
10/24/74/16	10/24/74/20	5		
10/30/74/14	11/01/74/14	49		
11/10/74/08	11/11/74/04	21		
11/11/74/20	11/12/74/07	12		
12/06/74/01	12/06/74/08	8		
12/09/74/07	12/09/74/13	7		
12/14/74/12	12/15/74/01	14		

[a]The data used in this analysis covers March 1, 1974 through December 31, 1975.

TABLE 9.5 (continued)

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause	Corrective Action
12/31/74/02	12/31/74/08	7		
01/11/75/07	01/11/75/12	6		
02/18/75/02	02/18/75/10	9		
02/25/75/08	02/25/75/13	6		
02/25/75/16	03/04/75/09	162		
03/09/75/06	03/09/75/23	18		
03/11/75/09	03/11/75/19	11		
03/13/75/10	03/13/75/16	7		
03/15/75/22	03/17/75/12	39		
03/18/75/08	03/26/75/08	193		
06/01/75/05	06/01/75/17	13		
06/12/75/00	06/12/75/08	9		
06/22/75/17	06/24/75/13	45		
07/01/75/22	07/02/75/08	11		Insulated cross arm from pole to eliminate intermittent grounded signal.
08/08/75/15	08/09/75/00	10		
08/24/75/14	08/25/75/17	28		
09/16/75/00	09/16/75/20	21		Further insulated cross arm from the pole to eliminate intermittent grounded signal.
10/06/75/08	10/06/75/16	9		
10/07/75/09	10/07/75/14	6		
10/17/75/05	10/18/75/09	29		
10/23/75/02	10/23/75/18	17		
10/24/75/16	10/25/75/19	28		
11/08/75/17	11/09/75/00	8		
12/02/75/14	12/03/75/05	16		
12/11/75/02	12/12/75/05	28		
12/12/75/10	12/31/75/23	470		

TABLE 9.6

PERIODS OF DATA OUTAGE FOR THE 51 - 97 METER DELTA-T[a]

Date of Outages (month/day/year/hour) From	To	Number of Hours	Cause[b]	Corrective Action[b]
05/03/70/11	05/04/70/01	15		
05/31/70/16	06/01/70/07	16		
06/21/70/22	06/22/70/07	10		
09/02/70/09	09/02/70/14	6		
09/10/70/20	09/11/70/07	12		
04/18/71/10	04/18/71/17	8		
05/10/71/18	05/11/71/07	14		
10/12/71/00	10/12/71/05	6		
11/02/71/20	11/03/71/08	13		
11/11/71/01	11/11/71/08	8		
01/11/72/07	01/11/72/15	9		
01/12/72/09	01/13/72/09	25		
04/16/72/22	04/17/72/05	8		
06/14/72/22	06/15/72/08	11		
07/09/72/22	07/10/72/05	8		
07/16/72/08	07/16/72/13	6		
09/11/72/19	09/12/72/00	6		
10/24/72/20	10/25/72/03	8		
12/08/72/18	12/09/72/14	21		
12/22/72/19	12/23/72/13	19		
01/24/73/02	01/24/73/13	12		
06/16/73/00	06/16/73/11	12		
07/02/73/01	07/02/73/08	8		
07/10/73/02	07/10/73/17	16		
08/27/73/21	08/31/73/15	91		
09/19/73/08	09/19/73/15	8		

[a] The data used in this analysis covers from March 1, 1970 through December 31, 1975.

[b] There is no documentation of the causes or corrective actions taken of this parameter.

TABLE 9.6 (continued)

Date of Outages (month/day/year/hour)		Number of		
From	To	Hours	Cause[b]	Corrective Action[b]
09/29/73/13	09/30/73/11	23		
10/23/73/08	10/23/73/14	7		
01/11/74/14	01/13/74/01	36		
01/29/74/17	01/30/74/16	24		
02/26/74/18	02/27/74/06	13		
03/03/74/08	03/03/74/18	11		
03/19/74/12	03/20/74/05	18		
03/29/74/22	03/30/74/12	15		
04/05/74/23	04/06/74/09	11		
04/07/74/03	04/07/74/15	13		
04/08/74/17	04/08/74/22	6		
04/28/74/08	04/29/74/00	17		
05/06/74/01	05/06/74/21	21		
06/01/74/16	06/02/74/00	9		
06/16/74/20	06/17/74/02	7		
07/06/74/15	07/07/74/02	12		
10/21/74/13	10/21/74/23	11		
12/12/74/04	12/12/74/10	7		
12/22/74/11	12/22/74/18	8		
02/10/75/08	02/10/75/14	7		
03/03/75/01	03/03/75/08	8		
04/30/75/19	05/01/75/05	11		
08/23/75/23	08/24/75/12	14		
09/09/75/09	09/09/75/16	8		
09/19/75/10	09/19/75/15	6		
09/29/75/17	10/02/75/06	62		
10/06/75/08	10/06/75/16	9		
10/22/75/18	10/23/75/12	19		

Nebraska Public Power District

GENERAL OFFICE
P. O. BOX 499, COLUMBUS, NEBRASKA 68601
TELEPHONE (402) 564-8561

February 8, 1978

Director, Nuclear Reactor Regulation
Attention: Mr. Don K. Davis, Acting Chief
Operating Reactors Branch No. 2
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Conformance to Appendix I of 10 CFR Part 50
Cooper Nuclear Station
NRC Docket No. 50-298, DPR-46

Dear Mr. Davis:

This letter is in response to your letter to the Nebraska Public Power District dated August 22, 1977 which requested additional information relative to our conformance to the subject regulation.

In our letter, dated November 14, 1977, the District provided responses to the remaining questions, with the exception of question 10, which we indicated would require significant re-analysis. The re-analysis has been completed and has been incorporated as Revision 1 of our original submittal (dated January 12, 1977). Additionally, for completeness, we have included, with Revision 1, Supplement No. 2, which contains our responses to questions 10 and 11.

Should you have any questions or comments relative to the attached information, please do not hesitate to contact me.

In addition to three signed originals, 37 copies of this information are submitted for your review.

Sincerely yours,

Jay M. Pilant
Director of Licensing and
Quality Assurance

JMP:cmk

Attachment

STATE OF NEBRASKA)
) ss
PLATTE COUNTY)

Jay M. Pilant, being first duly sworn, disposes and says that he is an authorized representative of the Nebraska Public Power District, a public corporation and political subdivision of the State of Nebraska; that he is duly authorized to submit this information on behalf of Nebraska Public Power District; and that the statements in said application are true to the best of his knowledge and belief.

Jay M. Pilant

Subscribed in my presence and sworn to before me this 8th day of February, 1978.

Carol A King
NOTARY PUBLIC

My Commission expires June 27, 1978.