

CCN 98 15004

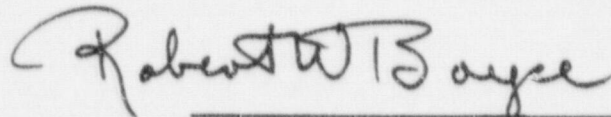
PECO Energy Company
LIMERICK GENERATING STATION

DOCKET NO. 50-352 (Unit 1)
DOCKET NO. 50-353 (Unit 2)

Tower No. 1
Joint Frequency Distributions of
Wind Speed and Direction by
Atmospheric Stability Class
1997
Report No. 13

Submitted to
The United States Nuclear Regulatory Commission
Pursuant to
Facility Operating License NPF-39 (Unit 1)
and NPF-85 (Unit 2)

Preparation Directed by:
J.D. von Suskil, Vice President
Limerick Generating Station



R.W. Boyce, Plant Manager

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PDR ADOCK 05000352
R PDR

LGS - MIXED-MODE RELEASE TURBINE ENCLOSURE (NORTH VENT) 1997

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE (MILES)	DISTANCE (METERS)	X/Q (SEC/CUB.METER)	X/Q (SEC/CUB.METER)	X/Q (SEC/CUB.METER)	D/Q (PER SQ.METER)
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NO DECAY

2,260 DAY DECAY

8,000 DAY DECAY

UNDEPLETED

UNDEPLETED

DEPLETED

N	SITE BOUNDARY	S	.81	1311.	1.781E-07	1.775E-07	1.593E-07	1.444E-09
N	SITE BOUNDARY	SSW	.49	793.	2.594E-07	2.589E-07	2.378E-07	1.486E-09
N	SITE BOUNDARY	SW	.61	975.	3.017E-07	3.010E-07	2.730E-07	2.141E-09
N	SITE BOUNDARY	WSW	.55	884.	4.296E-07	4.288E-07	3.910E-07	3.729E-09
N	SITE BOUNDARY	W	.57	914.	2.651E-07	2.647E-07	2.409E-07	2.454E-09
N	SITE BOUNDARY	WNW	.55	884.	1.640E-07	1.637E-07	1.493E-07	1.243E-09
N	SITE BOUNDARY	NW	.59	945.	1.424E-07	1.422E-07	1.290E-07	1.060E-09
N	SITE BOUNDARY	NNW	.68	1097.	1.922E-07	1.919E-07	1.732E-07	1.681E-09
N	SITE BOUNDARY	N	.63	1006.	3.690E-07	3.684E-07	3.333E-07	3.627E-09
N	SITE BOUNDARY	NNE	.55	884.	4.264E-07	4.258E-07	3.890E-07	4.511E-09
N	SITE BOUNDARY	NE	.53	853.	3.668E-07	3.660E-07	3.359E-07	3.359E-09
N	SITE BOUNDARY	ENE	.72	1158.	2.982E-07	2.974E-07	2.705E-07	3.123E-09
N	SITE BOUNDARY	E	.72	1158.	7.613E-07	7.597E-07	6.862E-07	8.406E-09
N	SITE BOUNDARY	ESE	.51	823.	1.708E-06	1.705E-06	1.560E-06	2.032E-08
N	SITE BOUNDARY	SE	.76	1219.	5.655E-07	5.643E-07	5.055E-07	6.246E-09
N	SITE BOUNDARY	SSE	.78	1250.	2.596E-07	2.588E-07	2.319E-07	2.205E-09
N	RAILROAD TRACKS	S	.19	300.	1.955E-06	1.953E-06	1.871E-06	9.729E-09
N	RAILROAD TRACKS	SSW	.14	225.	2.259E-06	2.257E-06	2.181E-06	7.235E-09
N	RAILROAD TRACKS	SW	.14	225.	3.489E-06	3.487E-06	3.369E-06	1.532E-08
N	RAILROAD TRACKS	WSW	.14	225.	4.026E-06	4.024E-06	3.888E-06	2.505E-08
N	RAILROAD TRACKS	W	.14	225.	2.597E-06	2.596E-06	2.508E-06	1.780E-08
N	RAILROAD TRACKS	WNW	.21	345.	7.559E-07	7.554E-07	7.200E-07	4.584E-09
N	RAILROAD TRACKS	NW	.28	450.	4.533E-07	4.529E-07	4.270E-07	3.062E-09
N	INFORMATION CTR	ESE	.55	884.	1.536E-06	1.534E-06	1.398E-06	1.820E-08
N	FRICKS LOCK	WSW	.28	450.	1.190E-06	1.189E-06	1.121E-06	9.703E-09

VENT AND BUILDING PARAMETERS:

RELEASE HEIGHT (METERS)	61.00	REP. WIND HEIGHT (METERS)	50.6
DIAMETER (METERS)	5.33	BUILDING HEIGHT (METERS)	61.0
EXIT VELOCITY (M/SEC)	7.68	BLDG.MIN.CRS.SEC.AREA (SQ.METERS)	4596.0
		HEAT EMISSION RATE (CAL/SEC)	.0

AT THE RELEASE HEIGHT:

VENT RELEASE MODE	WIND SPEED (METERS/SEC)
ELEVATED	LESS THAN 1.536
MIXED	BETWEEN 1.536 AND 7.680
GROUND LEVEL	ABOVE 7.680

AT THE MEASURED WIND HEIGHT (9.1 METERS):

VENT RELEASE MODE	WIND SPEED (METERS/SEC)	WIND SPEED (METERS/SEC)
	STABLE CONDITIONS	UNSTABLE/NEUTRAL CONDITIONS
ELEVATED	LESS THAN .651	LESS THAN 1.000
MIXED	BETWEEN .651 AND 3.257	BETWEEN 1.000 AND 5.001
GROUND LEVEL	ABOVE 3.257	ABOVE 5.001

LGS - MIXED-MODE RELEASE REACTOR ENCLOSURE (SOUTH VENT) 1997

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION	DISTANCE (MILES)	DISTANCE (METERS)	X/Q (SEC/CUB.METER)	X/Q (SEC/CUB.METER)	X/Q (SEC/CUB.METER)	D/Q (PER SQ.METER)
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NO DECAY

2.260 DAY DECAY

8.000 DAY DECAY

UNDEPLETED

UNDEPLETED

DEPLETED

S	SITE BOUNDARY	S	.81	1311.	2.057E-07	2.050E-07	1.847E-07	1.505E-09
S	SITE BOUNDARY	SSW	.49	793.	2.951E-07	2.945E-07	2.706E-07	1.590E-09
S	SITE BOUNDARY	SW	.61	975.	3.429E-07	3.421E-07	3.109E-07	2.273E-09
S	SITE BOUNDARY	WSW	.55	884.	4.847E-07	4.839E-07	4.418E-07	3.970E-09
S	SITE BOUNDARY	W	.57	914.	2.985E-07	2.980E-07	2.716E-07	2.608E-09
S	SITE BOUNDARY	WNW	.55	884.	1.871E-07	1.868E-07	1.705E-07	1.336E-09
S	SITE BOUNDARY	NW	.59	945.	1.653E-07	1.650E-07	1.499E-07	1.156E-09
S	SITE BOUNDARY	NNW	.68	1097.	2.249E-07	2.245E-07	2.033E-07	2.036E-09
S	SITE BOUNDARY	N	.63	1006.	4.224E-07	4.217E-07	3.820E-07	3.873E-09
S	SITE BOUNDARY	NNE	.55	884.	4.868E-07	4.860E-07	4.443E-07	5.221E-09
S	SITE BOUNDARY	NE	.53	853.	4.233E-07	4.224E-07	3.881E-07	3.998E-09
S	SITE BOUNDARY	ENE	.72	1158.	3.617E-07	3.608E-07	3.303E-07	3.252E-09
S	SITE BOUNDARY	E	.72	1158.	8.817E-07	8.799E-07	7.977E-07	8.774E-09
S	SITE BOUNDARY	ESE	.51	823.	1.899E-06	1.897E-06	1.735E-06	2.131E-08
S	SITE BOUNDARY	SE	.76	1219.	6.340E-07	6.326E-07	5.675E-07	6.503E-09
S	SITE BOUNDARY	SSE	.78	1250.	2.945E-07	2.937E-07	2.638E-07	2.307E-09
S	RAILROAD TRACKS	S	.19	300.	2.191E-06	2.189E-06	2.098E-06	1.052E-08
S	RAILROAD TRACKS	SSW	.14	225.	2.560E-06	2.558E-06	2.472E-06	7.992E-09
S	RAILROAD TRACKS	SW	.14	225.	3.910E-06	3.908E-06	3.776E-06	1.682E-08
S	RAILROAD TRACKS	WSW	.14	225.	4.487E-06	4.485E-06	4.334E-06	2.744E-08
S	RAILROAD TRACKS	W	.14	225.	2.896E-06	2.894E-06	2.796E-06	1.945E-08
S	RAILROAD TRACKS	WNW	.21	345.	8.563E-07	8.556E-07	8.157E-07	5.032E-09
S	RAILROAD TRACKS	NW	.28	450.	5.188E-07	5.184E-07	4.888E-07	3.396E-09
S	INFORMATION CTR	ESE	.55	884.	1.710E-06	1.708E-06	1.556E-06	1.907E-08
S	FRICKS LOCK	WSW	.28	450.	1.330E-06	1.329E-06	1.253E-06	1.050E-08

VENT AND BUILDING PARAMETERS:

RELEASE HEIGHT (METERS)	61.00	REP. WIND HEIGHT (METERS)	50.6
DIAMETER (METERS)	3.44	BUILDING HEIGHT (METERS)	61.0
EXIT VELOCITY (M/SEC)	7.32	BLDG.MIN.CRS.SEC.AREA (SQ.METERS)	4596.0
		HEAT EMISSION RATE (CAL/SEC)	.0

AT THE RELEASE HEIGHT:

VENT RELEASE MODE	WIND SPEED (METERS/SEC)
ELEVATED	LESS THAN 1.464
MIXED	BETWEEN 1.464 AND 7.320
GROUND LEVEL	ABOVE 7.320

AT THE MEASURED WIND HEIGHT (9.1 METERS):

VENT RELEASE MODE	WIND SPEED (METERS/SEC)	WIND SPEED (METERS/SEC)
	STABLE CONDITIONS	UNSTABLE/NEUTRAL CONDITIONS
ELEVATED	LESS THAN .621	LESS THAN .953
MIXED	BETWEEN .621 AND 3.104	BETWEEN .953 AND 4.767
GROUND LEVEL	ABOVE 3.104	ABOVE 4.767

1997

JOINT FREQUENCY DISTRIBUTION (JFD's)

30-FOOT LEVEL

TIME OF DAY: 9:26:53

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 30 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 30.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	0	1	1	0	0	1	0	0	0	0	1	2	2	0	0	1	9
3.51- 7.50	31	20	16	8	0	7	5	5	29	48	67	64	75	52	21	18	466
7.51-12.50	11	3	3	2	1	4	4	7	26	39	16	35	55	56	43	10	315
12.51-18.50	0	0	0	0	0	0	0	0	2	0	2	4	29	41	21	2	101
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	3	11
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	42	24	20	10	1	12	9	12	57	87	86	105	161	150	92	34	902

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 30.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	1	1	0	2	2	2	0	0	3	3	7	5	8	1	2	0	37
3.51- 7.50	15	9	12	13	7	4	1	6	11	18	13	25	27	42	24	11	238
7.51-12.50	8	1	3	5	6	2	0	4	11	6	3	7	29	23	20	10	138
12.51-18.50	0	0	0	0	0	0	0	0	1	2	0	0	18	38	12	0	71
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
TOTAL	24	11	15	20	15	8	1	10	26	29	23	37	84	104	59	23	489

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 30 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 30.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	2	2	5	5	1	1	4	8	3	6	10	7	7	5	3	2	71
3.51- 7.50	18	7	13	18	18	4	5	6	15	16	18	17	19	37	19	12	242
7.51-12.50	3	0	1	17	7	1	1	3	9	10	3	6	21	43	27	11	163
12.51-18.50	0	0	0	0	0	0	0	0	1	1	2	0	16	40	20	3	83
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	3	4	11	0	18
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	23	9	19	40	26	6	10	17	28	33	33	30	66	129	80	28	577

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 30.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	40	41	70	52	28	24	22	28	25	34	26	41	39	46	34	32	582
3.51- 7.50	96	46	99	168	63	45	36	71	90	68	49	64	103	158	124	95	1375
7.51-12.50	15	5	46	81	67	17	14	40	40	31	11	23	178	277	135	55	1036
12.51-18.50	0	0	1	1	7	2	0	0	6	9	1	4	74	156	72	13	346
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	8	16	17	1	42
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
TOTAL	152	92	216	302	165	88	72	139	161	142	87	132	403	653	382	96	3382

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 30 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 30.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	29	29	32	37	27	22	21	23	45	48	72	57	89	108	76	35	750
3.51- 7.50	28	20	27	45	24	24	37	51	95	61	40	48	119	172	81	32	904
7.51-12.50	2	1	0	1	3	1	3	9	18	19	8	7	11	26	11	7	127
12.51-18.50	0	0	0	0	0	0	0	0	0	0	1	2	1	5	2	0	11
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	59	50	59	83	54	47	61	83	158	128	121	114	220	312	170	74	1793

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 30.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	37	30	39	40	23	19	6	9	11	31	48	52	86	75	79	38	623
3.51- 7.50	0	5	4	0	4	2	1	1	13	20	9	12	14	19	17	5	126
7.51-12.50	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	0	9
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	37	35	43	40	27	21	7	10	25	51	57	64	100	95	104	43	759

TIME: 9:26:53

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 30 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 30.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
.51- 3.50	58	35	52	22	12	9	6	6	9	13	24	31	84	80	65	67	573
3.51- 7.50	0	2	0	1	0	1	2	1	0	1	0	1	9	13	4	0	35
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	58	37	52	23	12	10	8	7	9	14	24	32	93	93	69	67	609

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 30.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
.51- 3.50	167	139	199	158	93	78	59	74	96	135	188	195	315	315	259	175	2645
3.51- 7.50	188	109	171	253	116	87	87	141	253	232	196	231	366	493	290	173	3386
7.51-12.50	40	10	53	106	84	25	22	63	105	105	41	78	294	425	236	93	1780
12.51-18.50	0	0	1	1	7	2	0	0	10	12	6	10	138	281	135	18	621
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	11	22	36	6	75
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
TOTAL	395	258	424	518	300	192	168	278	464	484	431	514	1127	1536	956	465	8511

TIME OF DAY: 9:26:53

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 30 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 30.0 FEET

WIND THRESHOLD AT: .50 MPH

TOTAL NUMBER OF OBSERVATIONS: 8760

TOTAL NUMBER OF VALID OBSERVATIONS: 8511

TOTAL NUMBER OF MISSING OBSERVATIONS: 249

PERCENT DATA RECOVERY FOR THIS PERIOD: 97.2 %

MEAN WIND SPEED FOR THIS PERIOD: 6.2 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 176

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 139

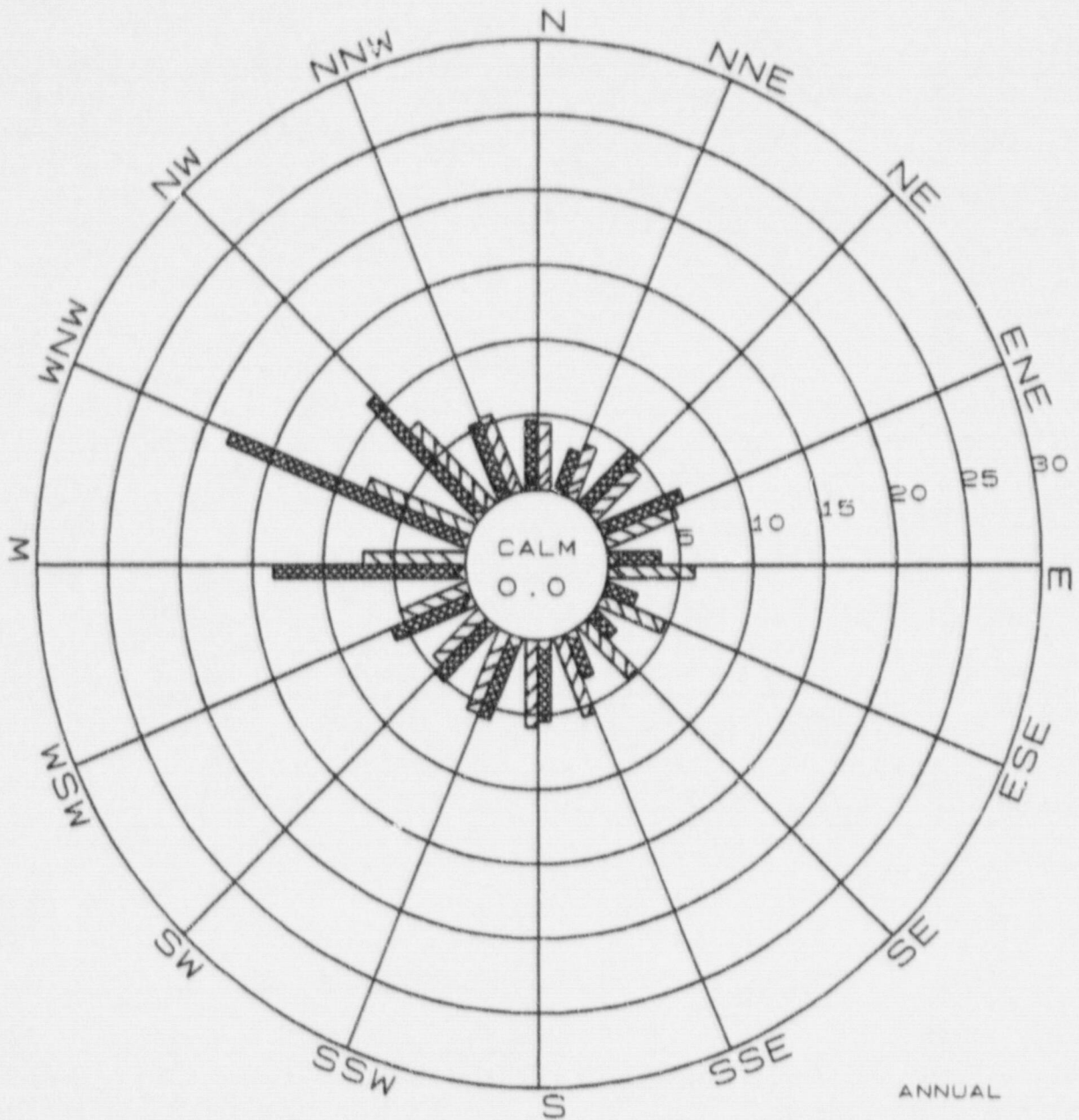
TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 178

PERCENTAGE OCCURRENCE OF STABILITY CLASSES


A	B	C	D	E	F	G
10.60	5.75	6.78	39.74	21.07	8.92	7.16

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	42	24	20	10	1	12	9	12	57	87	86	105	161	150	92	34	0
B	24	11	15	20	15	8	1	10	26	29	23	37	84	104	59	23	0
C	23	9	19	40	26	6	10	17	28	33	33	30	66	129	80	28	0
D	152	92	216	302	165	88	72	139	161	142	87	132	403	653	382	196	0
E	59	50	59	83	54	47	61	83	158	128	121	114	220	312	170	74	0
F	37	35	43	40	27	21	7	10	25	51	57	64	100	95	104	43	0
G	58	37	52	23	12	10	8	7	9	14	24	32	93	93	69	67	1
TOTAL	395	258	424	518	300	192	168	278	464	484	431	514	1127	1536	956	465	1



ANNUAL
8482 OBS.

 WIND DIRECTION FREQUENCY (PERCENT)
 MEAN WIND SPEED (MI/HR)

Limerick - 30 Ft
1997 Annual Wind Rose

1997

JOINT FREQUENCY DISTRIBUTION (JFD's)

175-FOOT LEVEL

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 175 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 175.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3
3.51- 7.50	14	19	12	8	2	3	3	2	7	18	30	19	29	22	13	8	209
7.51-12.50	20	15	3	4	0	2	8	8	32	52	44	43	69	54	28	14	396
12.51-18.50	0	4	1	0	0	0	0	1	7	25	12	25	50	34	59	11	229
18.51-24.00	0	0	0	0	0	0	0	0	1	0	3	6	17	24	18	4	73
>24.00	1	0	0	0	0	0	0	0	0	0	0	0	5	5	3	6	20
TOTAL	35	40	16	12	2	5	11	11	47	95	89	94	170	139	121	43	930

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 175.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	0	1	0	1	0	2	0	0	0	0	2	1	4	2	0	1	14
3.51- 7.50	5	9	10	9	5	6	1	4	13	9	8	8	16	16	10	7	136
7.51-12.50	18	4	7	4	6	3	2	3	6	11	13	17	17	35	17	15	178
12.51-18.50	3	0	1	1	1	3	0	0	7	5	3	5	21	18	22	5	95
18.51-24.00	0	0	0	0	0	0	0	0	1	2	1	1	11	24	18	0	58
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	1	7	2	0	10
TOTAL	26	14	18	15	12	14	3	7	27	27	27	32	70	102	69	28	491

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 175 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 175.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	1	2	3	1	2	1	2	1	7	7	3	4	7	3	1	0	45
3.51- 7.50	6	9	11	12	14	6	7	8	7	9	11	7	16	25	9	9	166
7.51-12.50	14	4	3	10	11	9	0	3	9	14	8	10	12	32	20	11	170
12.51-18.50	1	0	0	2	4	1	0	1	6	9	3	3	11	31	29	4	105
18.51-24.00	0	0	0	0	0	0	0	0	0	1	2	3	6	29	16	3	60
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	1	15	17	0	33
TOTAL	22	15	17	25	31	17	9	13	29	40	27	27	53	135	92	27	579

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 175.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	16	14	33	18	27	15	14	12	8	23	15	15	16	17	13	12	268
3.51- 7.50	45	38	67	109	46	35	26	38	41	47	39	18	52	59	31	45	736
7.51-12.50	73	50	56	106	92	38	28	59	93	49	38	39	85	149	131	88	1174
12.51-18.50	14	6	20	38	53	19	6	17	47	27	13	17	90	258	142	53	820
18.51-24.00	1	1	1	0	2	1	0	0	1	14	2	6	36	144	61	14	284
>24.00	0	0	0	0	0	0	0	0	0	3	2	1	13	52	26	6	103
TOTAL	149	109	177	271	220	108	74	126	190	163	109	96	292	679	404	218	3385

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 175 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 175.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	7	4	16	9	7	11	9	6	13	7	4	6	6	7	12	8	132
3.51- 7.50	19	19	25	27	16	10	18	34	44	66	62	48	63	131	45	26	653
7.51-12.50	21	16	19	17	29	14	16	36	77	81	44	46	86	176	103	37	818
12.51-18.50	3	6	0	0	5	4	1	3	21	19	12	8	27	33	23	11	176
18.51-24.00	0	0	0	0	0	0	0	0	0	4	5	5	1	3	0	1	19
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	4
TOTAL	50	45	60	53	57	39	44	79	155	177	127	114	183	351	185	83	1802

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 175.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	10	2	13	9	13	10	9	6	11	7	7	4	11	13	10	5	140
3.51- 7.50	14	6	15	9	11	7	6	11	8	27	21	25	57	93	39	17	366
7.51-12.50	1	11	4	1	5	4	2	0	6	26	28	21	24	71	19	15	238
12.51-18.50	0	1	0	0	0	0	0	0	2	2	4	0	3	2	3	0	17
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	7
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
TOTAL	25	20	32	19	29	21	17	17	27	62	60	50	95	179	77	40	770

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 175 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 175.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	6	8	12	14	14	12	10	4	12	6	11	11	16	20	16	12	184
3.51- 7.50	10	9	7	9	6	10	3	8	7	8	23	23	54	108	40	10	335
7.51-12.50	6	3	0	1	3	0	0	0	2	3	3	3	8	56	14	2	104
12.51-18.50	0	0	0	0	0	0	0	0	0	1	0	0	0	3	1	0	5
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	22	20	19	24	23	22	13	12	21	18	37	37	78	187	71	24	628

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 175.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	40	33	77	52	63	51	44	29	51	50	42	42	60	62	52	38	786
3.51- 7.50	113	109	147	183	100	77	64	105	127	184	194	148	287	454	187	122	2601
7.51-12.50	153	103	92	143	146	70	56	109	225	236	178	179	301	573	332	182	3078
12.51-18.50	21	17	22	41	63	27	7	22	90	88	47	58	202	379	279	84	1447
18.51-24.00	1	1	1	0	2	1	0	0	3	21	13	21	71	224	118	24	501
>24.00	1	0	0	0	0	0	0	0	0	3	2	2	20	80	51	13	172
TOTAL	329	263	339	419	374	226	171	265	496	582	476	450	941	1772	1019	463	8585

TIME OF DAY: 9:22:45

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 175 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 171.0 AND 26.0 FEET

WIND MEASURED AT: 175.0 FEET

WIND THRESHOLD AT: .50 MPH

TOTAL NUMBER OF OBSERVATIONS: 8760

TOTAL NUMBER OF VALID OBSERVATIONS: 8585

TOTAL NUMBER OF MISSING OBSERVATIONS: 175

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.0 %

MEAN WIND SPEED FOR THIS PERIOD: 9.8 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 144

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 140

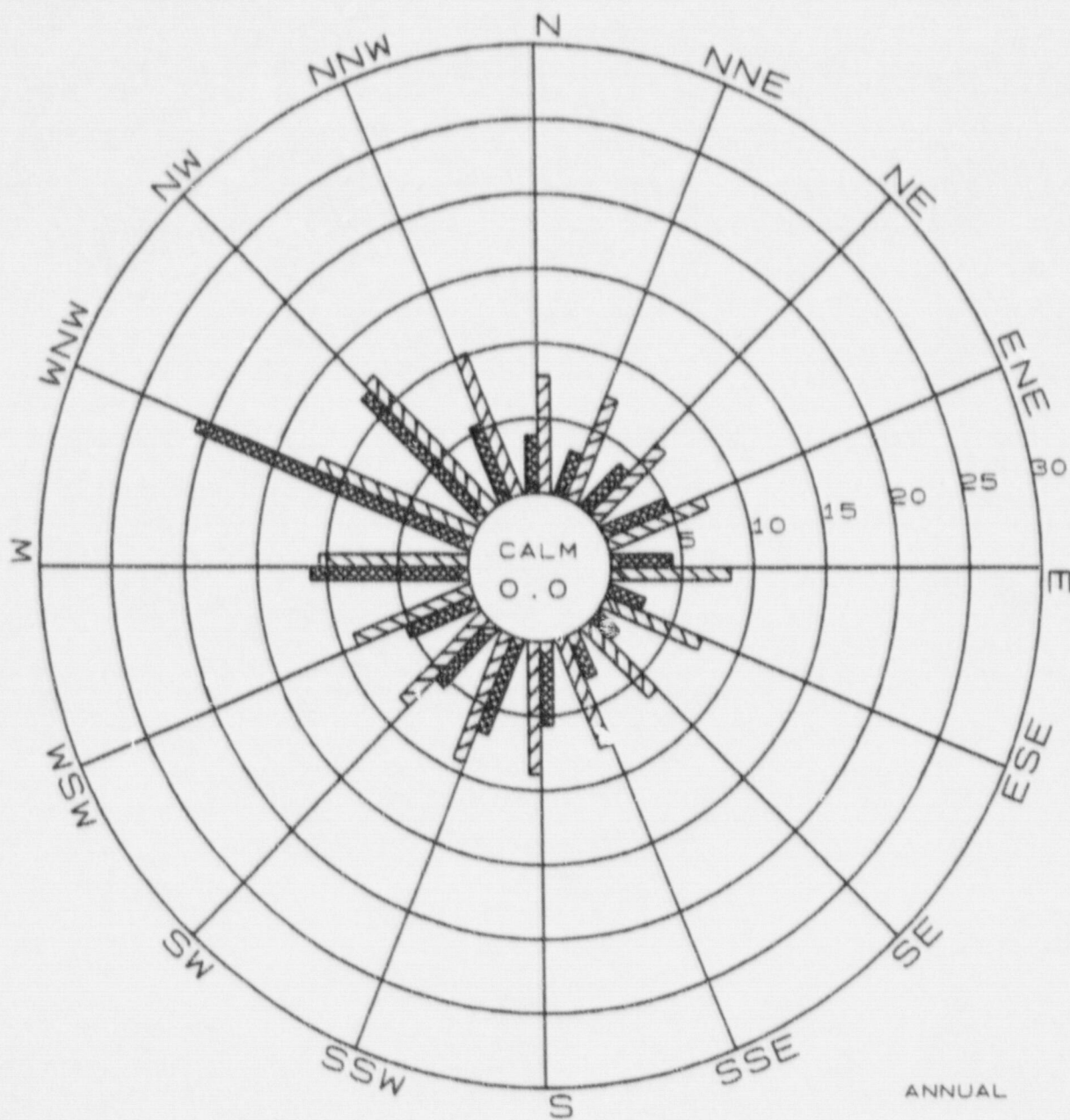
TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 145

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
10.83	5.72	6.74	39.43	20.99	8.97	7.32

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	35	40	16	12	2	5	11	11	47	95	89	94	170	139	121	43	0
B	26	14	18	15	12	14	3	7	27	27	27	32	70	102	69	28	0
C	22	15	17	25	31	17	9	13	29	40	27	27	53	135	92	27	0
D	149	109	177	271	220	108	74	126	190	163	109	96	292	679	404	218	0
E	50	45	60	53	57	39	44	79	155	177	127	114	183	351	185	83	0
F	25	20	32	19	29	21	17	17	27	62	60	50	95	179	77	40	0
G	22	20	19	24	23	22	13	12	21	18	37	37	78	187	71	24	0
TOTAL	329	263	339	419	374	226	171	265	496	582	476	450	941	1772	1019	463	0



ANNUAL
8587 OBS.

 WIND DIRECTION FREQUENCY (PERCENT)
 MEAN WIND SPEED (MI/HR)

Limerick - 175 Ft Level
1997 Annual Wind Rose

1997

JOINT FREQUENCY DISTIRBUTION (JFD's)

270-FOOT LEVEL

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 270 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 270.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	3	1	0	0	1	0	1	0	3	2	6	10	3	1	1	33
7.51-12.50	1	4	0	0	0	0	1	2	12	20	30	9	26	10	4	1	120
12.51-18.50	1	1	0	0	0	0	0	0	4	15	6	5	22	1	6	1	65
18.51-24.00	0	0	0	0	0	0	0	0	0	1	0	2	3	1	1	0	7
>24.00	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6	9
TOTAL	4	8	1	0	0	1	1	3	16	39	38	22	62	17	13	9	234

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 270.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	0	4
3.51- 7.50	4	6	7	3	1	1	2	3	5	5	10	6	9	11	6	3	82
7.51-12.50	8	12	2	2	0	0	2	2	5	19	14	15	25	29	14	4	153
12.51-18.50	3	1	0	2	0	0	1	1	6	8	8	6	23	21	24	6	110
18.51-24.00	0	0	0	0	0	0	0	0	1	1	1	1	16	11	14	3	48
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	6	13	1	0	20
TOTAL	15	19	10	7	1	2	5	6	17	33	33	28	80	86	59	16	417

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 270 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 270.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	1	0	0	0	1	0	1	0	1	0	4	1	1	1	0	1	12
3.51- 7.50	7	12	11	11	6	0	2	5	11	8	5	11	3	13	13	7	125
7.51-12.50	25	10	2	8	6	2	4	3	5	13	16	16	23	39	25	14	211
12.51-18.50	8	2	2	2	2	4	0	0	4	7	6	6	23	18	28	13	125
18.51-24.00	0	0	0	0	0	0	0	0	3	5	2	2	10	21	17	7	67
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	3	7	4	0	14
TOTAL	41	24	15	21	15	6	7	8	24	33	33	36	63	99	87	42	>54

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 270.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	13	10	19	15	12	10	12	8	9	12	12	11	9	17	10	5	184
3.51- 7.50	41	38	55	85	50	38	27	29	29	33	42	25	27	41	33	24	617
7.51-12.50	109	68	47	115	73	34	26	33	78	78	52	38	72	127	118	65	1133
12.51-18.50	39	15	23	61	57	21	16	19	69	38	29	22	96	223	155	64	947
18.51-24.00	7	2	5	4	9	1	1	1	9	14	5	9	61	215	101	33	477
>24.00	0	0	0	0	1	1	0	0	1	8	4	1	17	113	79	19	244
TOTAL	209	133	149	280	202	105	82	90	195	183	144	106	282	736	496	210	3602

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 270 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 270.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	5	4	6	8	12	6	6	6	5	14	8	3	5	7	6	6	107
3.51- 7.50	30	22	25	37	19	23	16	19	38	58	51	47	45	59	32	20	541
7.51-12.50	52	29	29	36	30	21	14	41	80	89	96	74	102	180	127	53	1053
12.51-18.50	26	11	19	10	30	24	5	11	69	57	21	21	61	124	87	36	612
18.51-24.00	1	3	2	0	10	3	0	0	1	13	10	6	11	19	8	4	91
>24.00	0	0	0	0	0	0	0	0	0	3	2	4	2	6	6	4	27
TOTAL	114	69	81	91	101	77	41	77	193	234	188	155	226	395	236	123	2431

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 270.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	5	9	7	9	10	7	8	8	4	4	4	11	6	2	5	6	105
3.51- 7.50	13	6	11	20	7	11	5	7	22	16	28	22	30	46	19	21	284
7.51-12.50	15	8	10	4	7	2	0	1	5	11	23	22	36	91	28	17	280
12.51-18.50	5	2	1	0	4	1	1	0	3	4	15	3	7	38	7	3	94
18.51-24.00	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	5
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	38	25	29	33	28	21	14	16	34	36	74	58	79	177	59	47	768

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 270 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 270.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	3	7	3	2	3	3	1	6	3	4	8	2	5	2	5	6	63
3.51- 7.50	5	4	10	4	4	3	1	1	7	5	7	25	42	52	27	15	212
7.51-12.50	2	2	3	2	3	0	0	0	2	2	5	2	3	65	26	4	121
12.51-18.50	0	1	0	0	0	0	0	0	0	0	0	0	0	23	1	1	26
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	10	14	16	8	10	6	2	7	12	11	20	29	50	142	61	26	422

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 270.00 FEET

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
.51- 3.50	27	30	36	34	38	27	28	28	22	34	36	28	27	30	26	24	475
3.51- 7.50	101	91	120	160	87	77	53	65	112	128	145	142	166	225	131	91	1894
7.51-12.50	212	133	93	167	119	59	47	82	187	232	236	176	287	541	342	158	3071
12.51-18.50	82	33	45	75	93	50	23	31	115	129	85	63	232	451	308	124	1979
18.51-24.00	8	5	7	4	19	4	1	1	14	35	22	20	101	266	141	47	695
>24.00	1	0	0	0	1	1	0	0	1	11	6	5	29	139	91	29	314
TOTAL	431	292	301	440	357	218	152	207	491	569	530	434	842	1652	1039	473	8428

TIME OF DAY: 9:35:39

PROGRAM: JFD VERSION: PC-1.2

Limerick Generating Station - JFD 270 FT LEVEL - January through December 1997

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 1/ 1/97 - 12/31/97

*** ANNUAL ***

STABILITY BASED ON: DELTA T BETWEEN 266.0 AND 26.0 FEET

WIND MEASURED AT: 270.0 FEET

WIND THRESHOLD AT: .50 MPH

TOTAL NUMBER OF OBSERVATIONS: 8760

TOTAL NUMBER OF VALID OBSERVATIONS: 8428

TOTAL NUMBER OF MISSING OBSERVATIONS: 332

PERCENT DATA RECOVERY FOR THIS PERIOD: 96.2 %

MEAN WIND SPEED FOR THIS PERIOD: 11.4 MPH

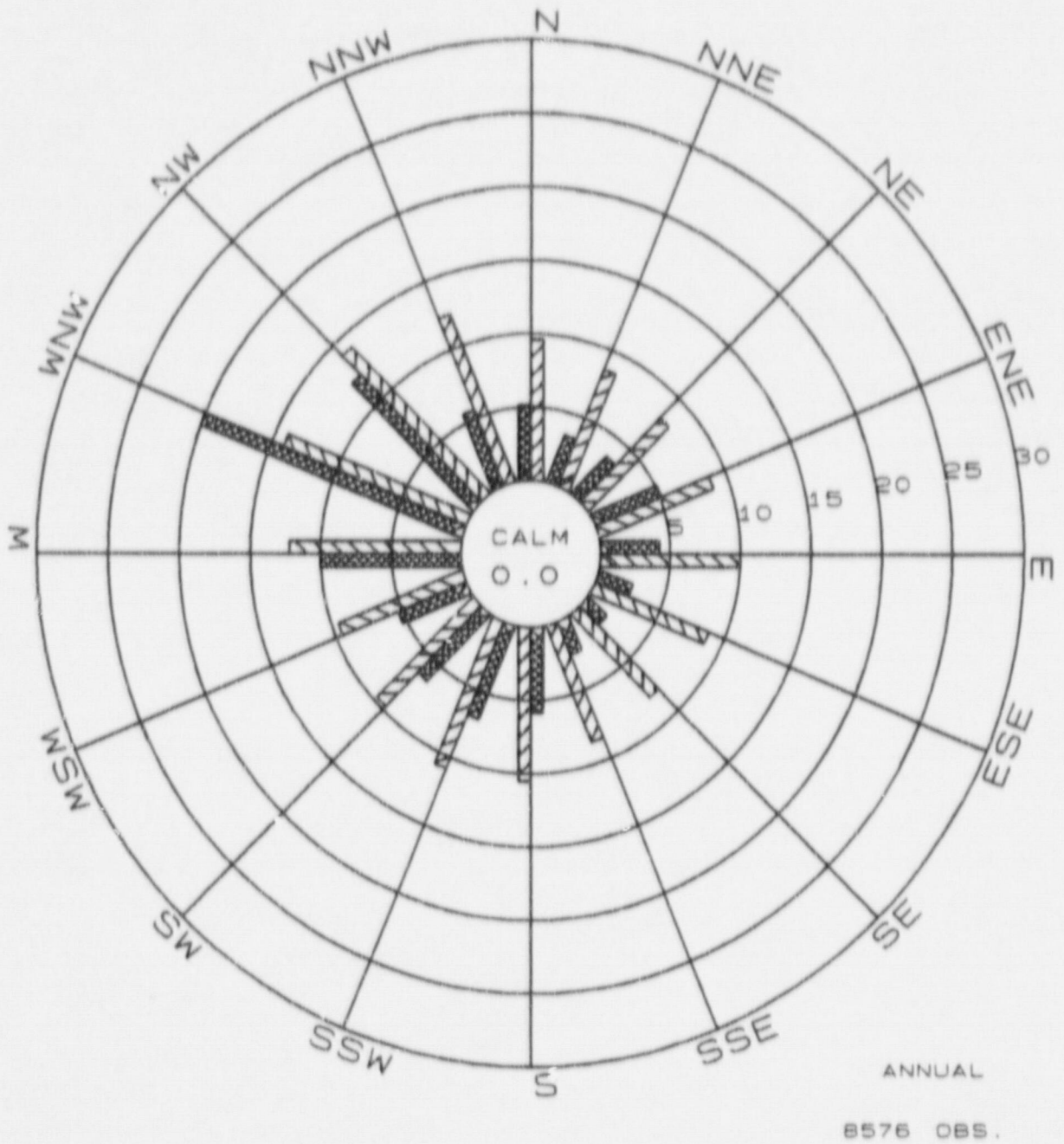
TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0



PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
2.78	4.95	6.57	42.74	28.84	9.11	5.01

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	4	8	1	0	0	1	1	3	16	39	38	22	62	17	13	9	0
B	15	19	10	7	1	2	5	6	17	33	33	28	80	86	59	16	0
C	41	24	15	21	15	6	7	8	24	33	33	36	63	99	87	42	0
D	209	133	149	280	202	105	82	90	195	183	144	106	282	736	496	210	0
E	114	69	81	91	101	77	41	77	193	234	188	155	226	395	266	123	0
F	38	25	29	33	28	21	14	16	34	36	74	58	79	177	59	47	0
G	10	14	16	8	10	6	2	7	12	11	20	29	50	142	59	26	0
TOTAL	431	292	301	440	357	218	152	207	471	569	530	434	842	1652	1039	473	0



 WIND DIRECTION FREQUENCY (PERCENT)
 MEAN WIND SPEED (MI/HR)

Limerick - 270 Ft Level
1997 Annual Wind Rose



**PECO
NUCLEAR**

A Unit of PECO Energy

Limerick Generating Station

