

WBN2Public Resource

From: Milano, Patrick
Sent: Wednesday, July 20, 2011 11:20 AM
To: Brown, Leta
Cc: WBN2HearingFile Resource
Subject: FW: JFD for NRC
Attachments: WBN_JFD_1991-2010[for NRC].pdf

Here is the joint frequency distribution data.

From: Bryan, Robert H Jr [\[mailto:rhbryan@tva.gov\]](mailto:rhbryan@tva.gov)
Sent: Wednesday, July 20, 2011 11:18 AM
To: Milano, Patrick
Cc: Crouch, William D
Subject: FW: JFD for NRC

From: Wastrack, Kenneth G
Sent: Wednesday, July 20, 2011 10:41 AM
To: Bryan, Robert H Jr
Subject: JFD for NRC

Bob,

As was discussed in the conference call this morning, here is the JFD that was used for the X/Q calculations.

Thank you,

Kenneth G. (Ken) Wastrack

Meteorologist

[*\(kqwastrack@tva.gov\)*](mailto:kqwastrack@tva.gov)

CTR 1P-M

256-386-3835

Hearing Identifier: Watts_Bar_2_Operating_LA_Public
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Subject: FW: JFD for NRC
Sent Date: 7/20/2011 11:20:24 AM
Received Date: 7/20/2011 11:20:26 AM
From: Milano, Patrick

Created By: Patrick.Milano@nrc.gov

Recipients:
"WBN2HearingFile Resource" <WBN2HearingFile.Resource@nrc.gov>
Tracking Status: None
"Brown, Leta" <Leta.Brown@nrc.gov>
Tracking Status: None

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND DIRECTION	CALM	WIND SPEED (MPH)								TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.001	0.014	0.065	0.118	0.136	0.006	0.000	0.000	0.340
NNE	0.000	0.000	0.016	0.097	0.152	0.219	0.007	0.000	0.000	0.490
NE	0.000	0.000	0.026	0.084	0.077	0.072	0.000	0.000	0.000	0.258
ENE	0.000	0.000	0.026	0.059	0.042	0.016	0.000	0.000	0.000	0.144
E	0.000	0.000	0.025	0.033	0.008	0.004	0.000	0.000	0.000	0.069
ESE	0.000	0.000	0.008	0.021	0.002	0.001	0.000	0.000	0.000	0.032
SE	0.000	0.001	0.016	0.016	0.006	0.004	0.000	0.000	0.000	0.042
SSE	0.000	0.000	0.029	0.041	0.012	0.010	0.001	0.000	0.000	0.093
S	0.000	0.001	0.041	0.117	0.129	0.099	0.015	0.000	0.000	0.402
SSW	0.000	0.001	0.037	0.300	0.537	0.562	0.022	0.000	0.000	1.459
SW	0.000	0.001	0.024	0.126	0.145	0.055	0.001	0.000	0.000	0.351
WSW	0.000	0.000	0.006	0.020	0.019	0.039	0.007	0.000	0.000	0.092
W	0.000	0.000	0.006	0.006	0.029	0.070	0.006	0.000	0.000	0.117
WNW	0.000	0.000	0.006	0.009	0.024	0.095	0.005	0.000	0.000	0.139
NW	0.000	0.000	0.004	0.009	0.028	0.087	0.011	0.000	0.000	0.138
NNW	0.000	0.000	0.009	0.027	0.059	0.124	0.011	0.000	0.000	0.230
SUBTOTAL	0.000	0.004	0.293	1.030	1.386	1.592	0.091	0.000	0.000	4.398

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

171942

TOTAL HOURS OF STABILITY CLASS A

7524

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A

7473

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

169934

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT

STABILITY BASED ON DELTA-T BETWEEN 9.51 AND 45.63 METERS

WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

MEAN WIND SPEED = 6.89

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

DATE PRINTED: 2011/04/21

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND DIRECTION	CALM	WIND SPEED (MPH)						18.5-24.4	>=24.5	TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4			
N	0.000	0.000	0.023	0.105	0.098	0.108	0.003	0.000	0.000	0.337
NNE	0.000	0.000	0.030	0.172	0.172	0.219	0.006	0.000	0.000	0.600
NE	0.000	0.000	0.058	0.139	0.078	0.059	0.000	0.000	0.000	0.334
ENE	0.000	0.000	0.041	0.083	0.035	0.008	0.000	0.000	0.000	0.167
E	0.000	0.001	0.026	0.048	0.005	0.001	0.000	0.000	0.000	0.081
ESE	0.000	0.001	0.019	0.026	0.001	0.000	0.000	0.000	0.000	0.047
SE	0.000	0.000	0.026	0.028	0.004	0.002	0.000	0.000	0.000	0.061
SSE	0.000	0.000	0.038	0.038	0.009	0.004	0.000	0.000	0.000	0.089
S	0.000	0.000	0.055	0.142	0.081	0.045	0.010	0.001	0.000	0.334
SSW	0.000	0.001	0.058	0.342	0.270	0.198	0.014	0.000	0.000	0.883
SW	0.000	0.000	0.026	0.179	0.069	0.019	0.000	0.000	0.000	0.294
WSW	0.000	0.000	0.008	0.040	0.015	0.019	0.001	0.000	0.000	0.084
W	0.000	0.000	0.005	0.015	0.031	0.047	0.009	0.000	0.000	0.107
WNW	0.000	0.001	0.004	0.013	0.037	0.082	0.006	0.000	0.000	0.143
NW	0.000	0.000	0.005	0.021	0.034	0.078	0.009	0.000	0.000	0.147
NNW	0.000	0.000	0.008	0.041	0.055	0.080	0.004	0.000	0.000	0.188
SUBTOTAL	0.000	0.004	0.430	1.432	0.996	0.970	0.063	0.001	0.000	3.895

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

171942

TOTAL HOURS OF STABILITY CLASS B

6670

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B

6619

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

169934

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT

STABILITY BASED ON DELTA-T BETWEEN 9.51 AND 45.63 METERS

WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

MEAN WIND SPEED = 6.08

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

DATE PRINTED: 2011/04/21

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND DIRECTION	CALM	WIND SPEED (MPH)						>=24.5	TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	
N	0.000	0.000	0.058	0.163	0.134	0.149	0.004	0.000	0.508
NNE	0.000	0.001	0.108	0.255	0.214	0.233	0.013	0.000	0.824
NE	0.000	0.002	0.117	0.206	0.089	0.052	0.001	0.000	0.467
ENE	0.000	0.001	0.097	0.118	0.023	0.005	0.001	0.000	0.245
E	0.000	0.002	0.069	0.055	0.005	0.001	0.000	0.000	0.132
ESE	0.000	0.001	0.049	0.036	0.003	0.001	0.000	0.000	0.091
SE	0.000	0.002	0.062	0.045	0.004	0.001	0.000	0.000	0.114
SSE	0.000	0.002	0.074	0.071	0.009	0.003	0.001	0.000	0.159
S	0.000	0.001	0.116	0.252	0.085	0.047	0.006	0.000	0.508
SSW	0.000	0.001	0.152	0.464	0.255	0.171	0.012	0.000	1.056
SW	0.000	0.002	0.083	0.269	0.076	0.009	0.001	0.000	0.440
WSW	0.000	0.001	0.024	0.058	0.027	0.021	0.002	0.000	0.132
W	0.000	0.001	0.016	0.034	0.039	0.046	0.004	0.000	0.139
WNW	0.000	0.000	0.016	0.038	0.058	0.105	0.006	0.000	0.224
NW	0.000	0.000	0.021	0.042	0.052	0.095	0.009	0.000	0.219
NNW	0.000	0.000	0.034	0.070	0.072	0.101	0.006	0.000	0.282
SUBTOTAL	0.000	0.016	1.097	2.176	1.143	1.041	0.066	0.001	5.541

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

171942

TOTAL HOURS OF STABILITY CLASS C

9494

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C

9416

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

169934

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT

STABILITY BASED ON DELTA-T BETWEEN 9.51 AND 45.63 METERS

WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

MEAN WIND SPEED = 5.49

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

DATE PRINTED: 2011/04/21

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND DIRECTION	CALM	WIND SPEED (MPH)								TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.004	0.048	0.664	0.970	1.049	1.087	0.024	0.000	0.000	3.847
NNE	0.004	0.047	0.702	1.162	1.020	0.979	0.057	0.002	0.000	3.973
NE	0.005	0.050	0.798	0.976	0.415	0.170	0.004	0.000	0.000	2.418
ENE	0.005	0.089	0.834	0.447	0.101	0.036	0.002	0.000	0.000	1.515
E	0.003	0.102	0.517	0.144	0.023	0.005	0.000	0.000	0.000	0.794
ESE	0.002	0.081	0.317	0.062	0.008	0.004	0.000	0.000	0.000	0.474
SE	0.003	0.087	0.392	0.082	0.024	0.013	0.000	0.001	0.000	0.602
SSE	0.004	0.120	0.620	0.178	0.039	0.032	0.009	0.000	0.000	1.003
S	0.008	0.159	1.179	0.760	0.288	0.280	0.083	0.004	0.000	2.762
SSW	0.011	0.136	1.736	1.934	0.922	0.770	0.059	0.001	0.000	5.567
SW	0.007	0.163	1.138	0.853	0.204	0.094	0.004	0.000	0.000	2.462
WSW	0.004	0.114	0.593	0.310	0.124	0.099	0.001	0.000	0.000	1.244
W	0.003	0.119	0.421	0.313	0.231	0.252	0.008	0.000	0.000	1.347
WNW	0.003	0.084	0.373	0.438	0.521	0.478	0.018	0.000	0.000	1.915
NW	0.002	0.059	0.372	0.427	0.567	0.598	0.040	0.001	0.000	2.067
NNW	0.003	0.035	0.481	0.558	0.655	0.839	0.035	0.000	0.000	2.607
SUBTOTAL	0.071	1.495	11.138	9.614	6.191	5.735	0.345	0.008	0.000	34.598

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

171942

TOTAL HOURS OF STABILITY CLASS D

59374

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D

58793

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

169934

TOTAL HOURS CALM

121

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT

STABILITY BASED ON DELTA-T BETWEEN 9.51 AND 45.63 METERS

WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

MEAN WIND SPEED = 4.86

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

DATE PRINTED: 2011/04/21

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND DIRECTION	CALM	WIND SPEED(MPH)								TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.020	0.131	0.474	0.609	0.324	0.058	0.002	0.000	0.000	1.618
NNE	0.018	0.122	0.423	0.304	0.161	0.047	0.003	0.000	0.000	1.078
NE	0.025	0.149	0.598	0.350	0.061	0.011	0.004	0.000	0.000	1.197
ENE	0.033	0.208	0.790	0.188	0.012	0.002	0.001	0.000	0.000	1.235
E	0.018	0.237	0.322	0.043	0.012	0.002	0.000	0.000	0.000	0.636
ESE	0.009	0.157	0.130	0.022	0.007	0.004	0.000	0.000	0.000	0.330
SE	0.011	0.183	0.151	0.045	0.023	0.012	0.001	0.000	0.000	0.425
SSE	0.020	0.300	0.294	0.085	0.046	0.038	0.006	0.000	0.000	0.789
S	0.048	0.469	0.983	0.402	0.197	0.183	0.031	0.001	0.000	2.314
SSW	0.082	0.561	1.928	1.181	0.575	0.395	0.026	0.000	0.000	4.749
SW	0.068	0.701	1.348	0.308	0.109	0.052	0.002	0.000	0.000	2.588
WSW	0.050	0.713	0.800	0.141	0.077	0.031	0.000	0.000	0.000	1.810
W	0.046	0.703	0.687	0.201	0.078	0.029	0.000	0.000	0.000	1.745
WNW	0.040	0.617	0.600	0.295	0.100	0.041	0.001	0.000	0.000	1.693
NW	0.032	0.410	0.565	0.295	0.125	0.059	0.002	0.001	0.000	1.489
NNW	0.022	0.211	0.467	0.425	0.290	0.094	0.005	0.000	0.000	1.513
SUBTOTAL	0.543	5.873	10.559	4.895	2.197	1.057	0.084	0.002	0.000	25.209

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

171942

TOTAL HOURS OF STABILITY CLASS E

43451

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E

42839

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

169934

TOTAL HOURS CALM

923

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT

STABILITY BASED ON DELTA-T BETWEEN 9.51 AND 45.63 METERS

WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

MEAN WIND SPEED = 3.03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F (1.5< DELTA T<= 4.0 C/100 M)

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND DIRECTION	CALM	WIND SPEED(MPH)								TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.026	0.227	0.173	0.017	0.000	0.001	0.000	0.000	0.000	0.444
NNE	0.022	0.181	0.165	0.010	0.002	0.001	0.000	0.000	0.000	0.381
NE	0.027	0.176	0.237	0.028	0.002	0.001	0.000	0.000	0.000	0.470
ENE	0.034	0.220	0.304	0.022	0.000	0.001	0.000	0.000	0.000	0.580
E	0.019	0.167	0.125	0.004	0.000	0.000	0.000	0.000	0.000	0.315
ESE	0.009	0.115	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.152
SE	0.009	0.107	0.035	0.004	0.001	0.002	0.000	0.000	0.000	0.157
SSE	0.014	0.152	0.058	0.009	0.002	0.001	0.001	0.000	0.000	0.236
S	0.033	0.272	0.238	0.033	0.003	0.001	0.000	0.000	0.000	0.580
SSW	0.066	0.424	0.594	0.150	0.009	0.004	0.000	0.000	0.000	1.247
SW	0.088	0.687	0.677	0.029	0.005	0.000	0.000	0.000	0.000	1.486
WSW	0.113	1.020	0.728	0.019	0.002	0.002	0.000	0.000	0.000	1.884
W	0.132	1.389	0.659	0.022	0.004	0.000	0.000	0.000	0.000	2.207
WNW	0.129	1.411	0.577	0.028	0.002	0.001	0.000	0.000	0.000	2.148
NW	0.110	1.159	0.546	0.034	0.004	0.000	0.000	0.000	0.000	1.852
NNW	0.046	0.436	0.272	0.038	0.004	0.001	0.000	0.000	0.000	0.796
SUBTOTAL	0.876	8.143	5.415	0.447	0.037	0.014	0.001	0.000	0.000	14.933

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

171942

TOTAL HOURS OF STABILITY CLASS F

25798

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F

25377

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

169934

TOTAL HOURS CALM

1489

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT

STABILITY BASED ON DELTA-T BETWEEN 9.51 AND 45.63 METERS

WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

MEAN WIND SPEED = 1.47

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

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JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND DIRECTION	CALM	WIND SPEED (MPH)						18.5-24.4	>=24.5	TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4			
N	0.021	0.215	0.071	0.002	0.000	0.000	0.000	0.000	0.000	0.309
NNE	0.018	0.177	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.263
NE	0.024	0.231	0.099	0.002	0.000	0.000	0.000	0.000	0.000	0.357
ENE	0.028	0.235	0.151	0.001	0.001	0.000	0.000	0.000	0.000	0.415
E	0.017	0.172	0.057	0.001	0.000	0.000	0.000	0.000	0.000	0.246
ESE	0.010	0.117	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.148
SE	0.012	0.141	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.175
SSE	0.013	0.151	0.028	0.001	0.000	0.000	0.000	0.000	0.000	0.193
S	0.023	0.267	0.056	0.002	0.001	0.000	0.000	0.000	0.000	0.349
SSW	0.039	0.405	0.137	0.006	0.001	0.000	0.000	0.000	0.000	0.589
SW	0.069	0.664	0.282	0.003	0.000	0.000	0.000	0.000	0.000	1.018
WSW	0.118	1.112	0.525	0.005	0.000	0.000	0.000	0.000	0.000	1.760
W	0.134	1.359	0.489	0.002	0.000	0.000	0.000	0.000	0.000	1.984
WNW	0.108	1.123	0.364	0.005	0.000	0.000	0.000	0.000	0.000	1.600
NW	0.097	0.930	0.405	0.003	0.000	0.000	0.000	0.000	0.000	1.435
NNW	0.039	0.383	0.159	0.004	0.000	0.000	0.000	0.000	0.000	0.585
SUBTOTAL	0.769	7.682	2.936	0.038	0.002	0.000	0.000	0.000	0.000	11.426

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

171942

TOTAL HOURS OF STABILITY CLASS G

19631

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G

19417

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

169934

TOTAL HOURS CALM

1306

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT

STABILITY BASED ON DELTA-T BETWEEN 9.51 AND 45.63 METERS

WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

MEAN WIND SPEED = 1.20

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

DATE PRINTED: 2011/04/21

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED
BY WIND DIRECTION DISREGARDING STABILITY CLASS

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND DIRECTION	CALM	WIND SPEED (MPH)								TOTAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.086	0.622	1.484	1.934	1.726	1.540	0.047	0.000	0.000	7.440
NNE	0.083	0.528	1.520	2.000	1.722	1.705	0.087	0.000	0.000	7.648
NE	0.104	0.608	1.938	1.790	0.723	0.365	0.009	0.000	0.000	5.537
ENE	0.122	0.747	2.248	0.923	0.215	0.069	0.004	0.000	0.000	4.328
E	0.074	0.679	1.146	0.325	0.053	0.013	0.000	0.000	0.000	2.290
ESE	0.043	0.469	0.582	0.169	0.022	0.009	0.000	0.000	0.000	1.293
SE	0.050	0.522	0.711	0.218	0.061	0.033	0.001	0.000	0.000	1.597
SSE	0.076	0.723	1.139	0.422	0.116	0.087	0.017	0.000	0.000	2.581
S	0.156	1.168	2.665	1.718	0.780	0.656	0.144	0.006	0.000	7.292
SSW	0.251	1.525	4.643	4.391	2.565	2.094	0.133	0.001	0.000	15.603
SW	0.236	2.210	3.573	1.785	0.607	0.227	0.008	0.000	0.000	8.645
WSW	0.229	2.951	2.678	0.592	0.261	0.211	0.011	0.000	0.000	6.933
W	0.237	3.556	2.273	0.595	0.412	0.444	0.027	0.000	0.000	7.543
WNW	0.210	3.227	1.938	0.829	0.743	0.807	0.039	0.000	0.000	7.795
NW	0.182	2.547	1.910	0.829	0.812	0.923	0.074	0.002	0.000	7.279
NNW	0.102	1.065	1.427	1.169	1.133	1.239	0.062	0.000	0.000	6.197
SUBTOTAL	2.242	23.148	31.873	19.689	11.951	10.422	0.664	0.011	0.000	100.000

TOTAL HOURS OF VALID WIND OBSERVATIONS
TOTAL HOURS OF OBSERVATIONS
RECOVERABILITY PERCENTAGE
TOTAL HOURS CALM

171920
175320
98.1
3854

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT
WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

MEAN WIND SPEED = 3.65

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

DATE PRINTED: 2011/04/21

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY STABILITY CLASS

WATTS BAR NUCLEAR PLANT

JAN 1, 1991 - DEC 31, 2010

WIND SPEED (MPH)	STABILITY CLASS						
	A	B	C	D	E	F	G
CALM	0.000	0.000	0.000	0.071	0.543	0.876	0.769
0.6- 1.4	0.004	0.004	0.016	1.495	5.873	8.143	7.682
1.5- 3.4	0.293	0.430	1.097	11.138	10.559	5.415	2.936
3.5- 5.4	1.030	1.432	2.176	9.614	4.895	0.447	0.038
5.5- 7.4	1.386	0.996	1.143	6.191	2.197	0.037	0.002
7.5-12.4	1.592	0.970	1.041	5.735	1.057	0.014	0.000
12.5-18.4	0.091	0.063	0.066	0.345	0.084	0.001	0.000
18.5-24.4	0.000	0.001	0.001	0.008	0.002	0.000	0.000
>=24.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	4.398	3.895	5.541	34.598	25.209	14.933	11.426

TOTAL HOURS OF VALID STABILITY OBSERVATIONS 171942
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS169934
TOTAL HOURS OF OBSERVATIONS 175320
JOINT RECOVERABILITY PERCENTAGE 96.9

METEOROLOGICAL FACILITY: WATTS BAR NUCLEAR PLANT
STABILITY BASED ON DELTA-T BETWEEN 9.51 AND 45.63 METERS
WIND SPEED AND DIRECTION MEASURED AT 9.72 METER LEVEL

DATE PRINTED: 2011/04/21