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50-389 St. Lucie Plant, Unit 2, Florida Power & Light Co.			05000389
AUTH.NAME	AUTHOR AFFILIATION		
SAGER,D.A.	Florida Power & Light Co.		
RECIP.NAME	RECIPIENT AFFILIATION		
TICHLER,J.	Brookhaven National Laboratory		

SUBJECT: Responds to BNL 950502 ltr requesting joint frequency distribution of wind direction, speed & stability at St Lucie plant for CY94. Info encl.

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June 1, 1995

L-95-153


Ms. Joyce Tichler
Brookhaven National Laboratory
Analytical Sciences Division
Building 490D
P.O. Box 5000
Upton, NY 11973

Re: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Response to Brookhaven National Laboratory
Request for 1994 Radioactive Effluent Release
Supplemental Information

This letter is being submitted in response to Brookhaven National Laboratory letter dated May 2, 1995, which requested a joint frequency distribution (JFD), of wind direction, speed, and stability at our plant for calendar year 1994. Attachment 1 is a copy of the JFD. An electronic copy of the JFD (IBM PC format) is also included with the original of this letter only. Our stack characteristics have not changed since we last sent them to you. However, copies of the ODCM changes made in 1994 were submitted with the 1994 Radiological Effluent Report which was submitted on February 24, 1995, by FPL letter L-95-65.

If there should be any questions please contact us.

Very truly yours,


D. A. Sager
Vice President
St. Lucie Plant

DAS/SL

cc: USNRC Document Control Desk, Washington, DC
Stewart D. Ebnetter, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant
Stephen Klementowicz, USNRC, Washington, DC

Attachments



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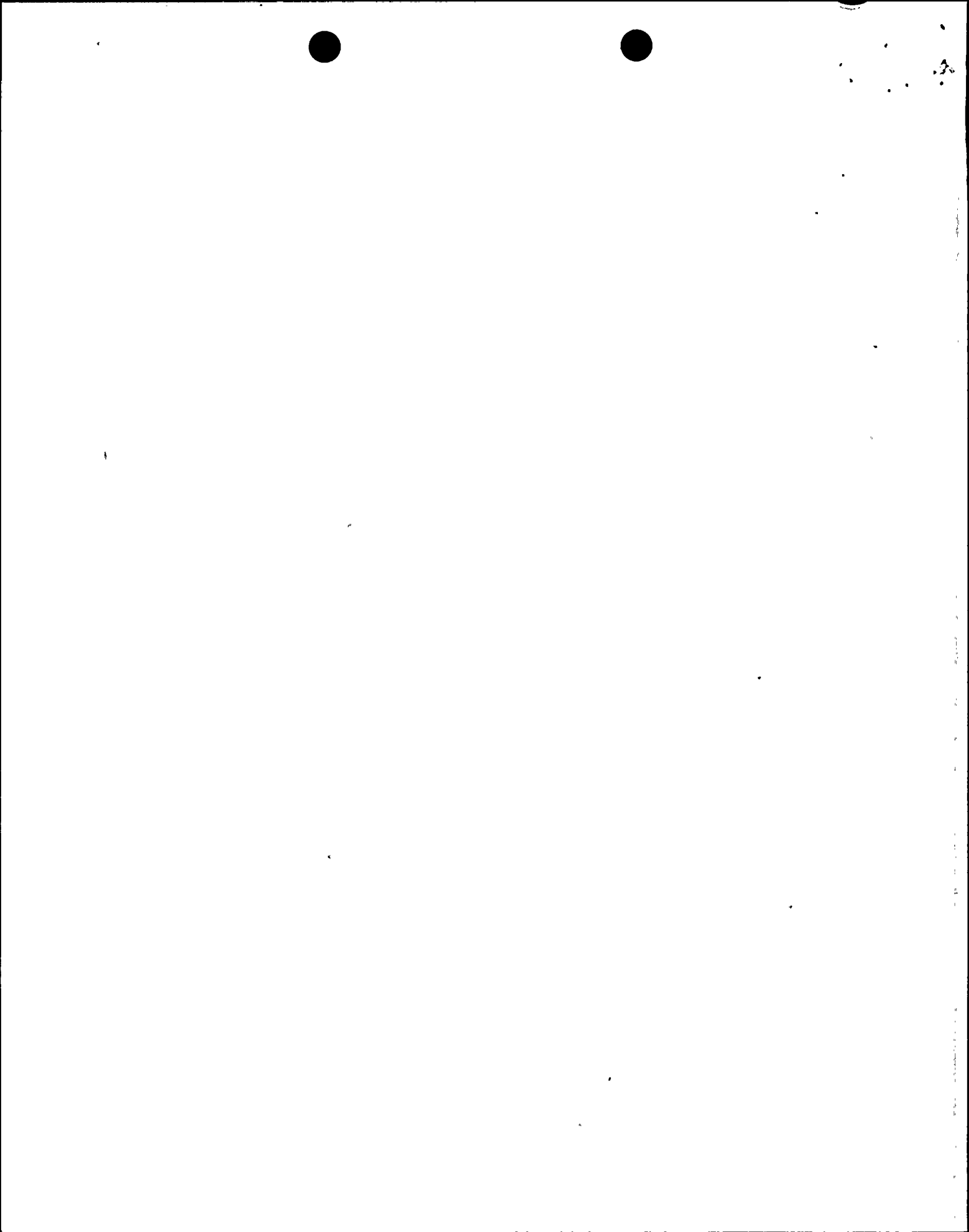


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St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Response to Brookhaven National Laboratory
Request for 1994 Radioactive Effluent Release
Supplemental information
L-95-153

Attachment 1

Frequency of Wind Direction and Speed
by Vertical Stability Category for year 1994



F L O R I D A P O W E R & L I G H T C O M P A N Y

ST. LUCIE PLANT

PERIOD OF RECORD: Jan. 1, 1994 to Dec. 31, 1994

ANNUAL REPORT OF PERCENT FREQUENCY OF WIND DIRECTION
AND WIND SPEED BY VERTICAL STABILITY CATEGORY

PASQUILL CATEGORY A

WIND SECTOR	SECTOR NUMBER	10-METER WIND SPEED (mph)						SECTOR PCT.	MEAN SPEED	
		1-3	4-7	8-12	13-18	19-24	>24			
NNE	1	0.000	0.456	0.516	0.060	0.000	0.000	1.031	8.192	
NE	2	0.000	0.564	0.696	0.264	0.000	0.000	1.523	8.838	
ENE	3	0.000	0.600	1.283	0.216	0.024	0.012	2.135	9.206	
E	4	0.000	0.684	2.675	0.312	0.000	0.012	3.682	9.393	
ESE	5	0.000	0.660	1.739	0.180	0.000	0.012	2.591	9.253	
SE	6	0.000	0.108	1.931	0.888	0.096	0.000	3.022	11.629	
SSE	7	0.000	0.000	0.036	0.048	0.000	0.000	0.084	12.929	
S	8	0.000	0.000	0.024	0.000	0.000	0.000	0.024	9.550	
SSW	9	0.000	0.000	0.036	0.012	0.000	0.000	0.048	10.075	
SW	10	0.000	0.048	0.156	0.096	0.000	0.000	0.300	10.544	
WSW	11	0.000	0.072	0.144	0.048	0.000	0.000	0.264	9.464	
W	12	0.000	0.120	0.336	0.072	0.072	0.000	0.600	10.426	
WNW	13	0.012	0.252	0.336	0.072	0.000	0.000	0.672	8.561	
NW	14	0.000	0.204	0.252	0.024	0.000	0.000	0.480	8.230	
NNW	15	0.000	0.072	0.372	0.048	0.000	0.000	0.492	9.444	
N	16	0.000	0.828	1.295	0.084	0.000	0.000	2.207	8.275	
SUBTOTALS		0.012	4.665	11.825	2.423	0.192	0.036	19.153	9.480	
CALM								0.000	0	
								PASQUILL CATEGORY TOTAL (%) :	19.153	9.480

TOTAL HOURLY OBSERVATIONS FOR YEAR : 8760

NUMBER OF VALID CATEGORY OBSERVATIONS: 1597

VALID DATA PERCENTAGE FOR YEAR : 18.231

F L O R I D A P O W E R & L I G H T C O M P A N Y
 S T . L U C I E P L A N T

P E R I O D O F R E C O R D : J a n . 1 , 1 9 9 4 t o D e c . 3 1 , 1 9 9 4

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P A S Q U I L L C A T E G O R Y B

WIND SECTOR	SECTOR NUMBER	10-METER WIND SPEED (mph)						SECTOR PCT.	MEAN SPEED	
		1-3	4-7	8-12	13-18	19-24	>24			
NNE	1	0.000	0.072	0.060	0.048	0.000	0.000	0.180	8.900	
NE	2	0.000	0.180	0.072	0.060	0.024	0.012	0.348	9.993	
ENE	3	0.000	0.132	0.192	0.060	0.012	0.000	0.396	9.782	
E	4	0.000	0.252	0.216	0.072	0.000	0.000	0.540	8.518	
ESE	5	0.000	0.108	0.216	0.024	0.000	0.012	0.360	9.573	
SE	6	0.000	0.132	0.360	0.084	0.036	0.012	0.624	10.985	
SSE	7	0.000	0.036	0.048	0.060	0.012	0.000	0.156	11.469	
S	8	0.000	0.000	0.012	0.012	0.000	0.000	0.024	13.050	
SSW	9	0.000	0.060	0.084	0.024	0.012	0.000	0.180	9.747	
SW	10	0.000	0.036	0.048	0.060	0.000	0.000	0.144	10.517	
WSW	11	0.000	0.048	0.036	0.012	0.000	0.000	0.096	8.138	
W	12	0.012	0.084	0.012	0.012	0.012	0.000	0.132	7.845	
WNW	13	0.000	0.132	0.048	0.000	0.000	0.000	0.180	6.487	
NW	14	0.000	0.048	0.132	0.012	0.000	0.000	0.192	9.075	
NNW	15	0.012	0.072	0.024	0.048	0.000	0.012	0.168	10.064	
N	16	0.000	0.084	0.108	0.000	0.000	0.000	0.192	8.044	
SUBTOTALS		0.024	1.475	1.667	0.588	0.108	0.048	3.910	9.506	
CALM								0.000	0	
								PASQUILL CATEGORY TOTAL (%) :	3.910	9.506

TOTAL HOURLY OBSERVATIONS FOR YEAR : 8760

NUMBER OF VALID CATEGORY OBSERVATIONS: 326

VALID DATA PERCENTAGE FOR YEAR : 3.721

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT

PERIOD OF RECORD: Jan. 1, 1994 to Dec. 31, 1994

ANNUAL REPORT OF PERCENT FREQUENCY OF WIND DIRECTION
AND WIND SPEED BY VERTICAL STABILITY CATEGORY

PASQUILL CATEGORY C

WIND SECTOR	SECTOR NUMBER	10-METER WIND SPEED (mph)						SECTOR PCT.	MEAN SPEED
		1-3	4-7	8-12	13-18	19-24	>24		
NNE	1	0.012	0.108	0.084	0.024	0.000	0.000	0.228	7.626
NE	2	0.000	0.072	0.072	0.036	0.036	0.036	0.252	12.886
ENE	3	0.000	0.156	0.204	0.120	0.036	0.012	0.528	10.673
E	4	0.000	0.144	0.144	0.036	0.012	0.024	0.360	10.100
ESE	5	0.000	0.216	0.216	0.072	0.000	0.000	0.504	8.733
SE	6	0.012	0.192	0.156	0.084	0.000	0.000	0.444	8.830
SSE	7	0.024	0.012	0.156	0.036	0.012	0.012	0.252	14.519
S	8	0.012	0.012	0.084	0.024	0.000	0.000	0.132	9.782
SSW	9	0.012	0.048	0.048	0.024	0.000	0.000	0.132	8.364
SW	10	0.012	0.036	0.048	0.024	0.000	0.000	0.120	8.810
WSW	11	0.000	0.072	0.036	0.000	0.000	0.000	0.108	7.133
W	12	0.000	0.060	0.048	0.036	0.000	0.000	0.144	8.942
WNW	13	0.012	0.060	0.072	0.024	0.000	0.000	0.168	7.857
NW	14	0.012	0.072	0.036	0.012	0.000	0.000	0.132	7.136
NNW	15	0.012	0.024	0.048	0.024	0.000	0.000	0.108	9.700
N	16	0.012	0.168	0.060	0.000	0.000	0.000	0.240	6.325
		-----	-----	-----	-----	-----	-----	-----	-----
SUBTOTALS		0.132	1.451	1.511	0.576	0.096	0.084	3.850	9.495
CALM								0.000	0
								-----	-----
								3.850	9.495

PASQUILL CATEGORY TOTAL (%):

TOTAL HOURLY OBSERVATIONS FOR YEAR : 8760
 NUMBER OF VALID CATEGORY OBSERVATIONS: 321
 VALID DATA PERCENTAGE FOR YEAR : 3.664

F L O R I D A P O W E R & L I G H T C O M P A N Y

ST. LUCIE PLANT

PERIOD OF RECORD: Jan. 1, 1994 to Dec. 31, 1994

ANNUAL REPORT OF PERCENT FREQUENCY OF WIND DIRECTION
AND WIND SPEED BY VERTICAL STABILITY CATEGORY

PASQUILL CATEGORY D

WIND SECTOR	SECTOR NUMBER	10-METER WIND SPEED (mph)						SECTOR PCT.	MEAN SPEED
		1-3	4-7	8-12	13-18	19-24	>24		
NNE	1	0.096	0.372	0.492	0.228	0.000	0.000	1.187	8.778
NE	2	0.156	0.528	0.648	0.504	0.396	0.024	2.255	11.553
ENE	3	0.108	0.911	2.075	1.511	0.312	0.036	4.953	11.458
E	4	0.132	1.091	2.387	1.499	0.168	0.012	5.289	10.785
ESE	5	0.036	1.559	1.667	0.708	0.060	0.000	4.030	9.296
SE	6	0.084	1.055	1.235	0.192	0.012	0.000	2.579	8.214
SSE	7	0.072	0.744	1.655	0.588	0.060	0.012	3.130	9.808
S	8	0.060	0.816	2.147	0.648	0.036	0.012	3.718	9.822
SSW	9	0.024	1.247	1.271	0.432	0.096	0.000	3.070	9.061
SW	10	0.060	1.199	0.396	0.192	0.012	0.000	1.859	7.306
WSW	11	0.120	0.456	0.084	0.072	0.000	0.000	0.732	6.054
W	12	0.084	0.468	0.288	0.168	0.000	0.000	1.007	7.807
WNW	13	0.108	0.432	0.408	0.156	0.000	0.000	1.103	7.865
NW	14	0.108	0.732	1.199	0.048	0.000	0.000	2.087	7.795
NNW	15	0.036	0.516	1.055	0.012	0.000	0.000	1.619	8.560
N	16	0.084	0.636	0.744	0.252	0.000	0.000	1.715	8.734
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SUBTOTALS		1.367	12.761	17.750	7.208	1.151	0.096	40.333	9.511
CALM								0.000	0
								-----	-----
								PASQUILL CATEGORY TOTAL (%) :	40.333 9.511

TOTAL HOURLY OBSERVATIONS FOR YEAR : 8760

NUMBER OF VALID CATEGORY OBSERVATIONS: 3363

VALID DATA PERCENTAGE FOR YEAR : 38.390

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT

PERIOD OF RECORD: Jan. 1, 1994 to Dec. 31, 1994

ANNUAL REPORT OF PERCENT FREQUENCY OF WIND DIRECTION
AND WIND SPEED BY VERTICAL STABILITY CATEGORY

PASQUILL CATEGORY E

WIND SECTOR	SECTOR NUMBER	10-METER WIND SPEED (mph)						SECTOR PCT.	MEAN SPEED
		1-3	4-7	8-12	13-18	19-24	>24		
NNE	1	0.228	0.636	0.132	0.048	0.000	0.000	1.043	5.469
NE	2	0.228	0.480	0.180	0.060	0.000	0.000	0.947	6.190
ENE	3	0.312	0.588	0.372	0.144	0.084	0.012	1.511	7.901
E	4	0.288	1.175	0.576	0.180	0.024	0.012	2.255	7.228
ESE	5	0.252	1.787	0.744	0.120	0.048	0.000	2.950	6.887
SE	6	0.216	2.543	0.780	0.024	0.024	0.000	3.586	6.171
SSE	7	0.144	1.319	0.780	0.084	0.084	0.000	2.411	7.452
S	8	0.108	0.540	0.444	0.000	0.036	0.000	1.127	7.241
SSW	9	0.108	0.708	0.192	0.012	0.000	0.000	1.019	5.831
SW	10	0.192	0.888	0.096	0.012	0.000	0.000	1.187	5.188
WSW	11	0.264	1.091	0.228	0.060	0.000	0.000	1.643	5.542
W	12	0.480	1.463	0.384	0.072	0.000	0.000	2.399	5.611
WNW	13	0.300	1.235	0.336	0.024	0.000	0.000	1.895	5.803
NW	14	0.288	1.283	0.588	0.012	0.000	0.000	2.171	5.855
NNW	15	0.396	1.091	0.468	0.000	0.000	0.000	1.955	5.736
N	16	0.180	0.911	0.204	0.000	0.000	0.000	1.295	5.474
SUBTOTALS		3.982	17.738	6.500	0.852	0.300	0.024	29.396	6.296
CALM								0.000	0
PASQUILL CATEGORY TOTAL (%):								29.396	6.296

TOTAL HOURLY OBSERVATIONS FOR YEAR : 8760

NUMBER OF VALID CATEGORY OBSERVATIONS: 2451

VALID DATA PERCENTAGE FOR YEAR : 27.979

F L O R I D A P O W E R & L I G H T C O M P A N Y

ST. LUCIE PLANT

PERIOD OF RECORD: Jan. 1, 1994 to Dec. 31, 1994

ANNUAL REPORT OF PERCENT FREQUENCY OF WIND DIRECTION
AND WIND SPEED BY VERTICAL STABILITY CATEGORY

PASQUILL CATEGORY F

WIND SECTOR	SECTOR NUMBER	10-METER WIND SPEED (mph)						SECTOR PCT.	MEAN SPEED
		1-3	4-7	8-12	13-18	19-24	>24		
NNE	1	0.024	0.048	0.000	0.000	0.000	0.000	0.072	4.133
NE	2	0.036	0.048	0.000	0.000	0.000	0.000	0.084	3.271
ENE	3	0.048	0.024	0.012	0.000	0.000	0.000	0.084	4.343
E	4	0.036	0.024	0.012	0.000	0.000	0.000	0.072	4.167
ESE	5	0.060	0.144	0.012	0.000	0.000	0.000	0.216	4.878
SE	6	0.012	0.312	0.000	0.000	0.024	0.000	0.348	6.217
SSE	7	0.024	0.024	0.000	0.000	0.000	0.000	0.048	3.525
S	8	0.012	0.048	0.000	0.000	0.000	0.000	0.060	5.000
SSW	9	0.060	0.072	0.000	0.000	0.000	0.000	0.132	3.791
SW	10	0.036	0.132	0.000	0.000	0.000	0.000	0.168	4.550
WSW	11	0.072	0.264	0.000	0.000	0.000	0.000	0.336	3.911
W	12	0.144	0.132	0.000	0.000	0.000	0.000	0.276	3.500
WNW	13	0.048	0.216	0.000	0.000	0.000	0.000	0.264	4.191
NW	14	0.036	0.300	0.000	0.000	0.000	0.000	0.336	4.932
NNW	15	0.024	0.204	0.024	0.000	0.000	0.000	0.252	5.057
N	16	0.084	0.060	0.012	0.000	0.000	0.000	0.156	3.754
		-----	-----	-----	-----	-----	-----	-----	-----
SUBTOTALS		0.756	2.051	0.072	0.000	0.024	0.000	2.902	4.508
CALM								0.000	0
								-----	-----
								2.902	4.508

PASQUILL CATEGORY TOTAL (%):

TOTAL HOURLY OBSERVATIONS FOR YEAR : 8760
 NUMBER OF VALID CATEGORY OBSERVATIONS: 242
 VALID DATA PERCENTAGE FOR YEAR : 2.763

F L O R I D A P O W E R & L I G H T C O M P A N Y

ST. LUCIE PLANT

PERIOD OF RECORD: Jan. 1, 1994 to Dec. 31, 1994

ANNUAL REPORT OF PERCENT FREQUENCY OF WIND DIRECTION
AND WIND SPEED BY VERTICAL STABILITY CATEGORY

PASQUILL CATEGORY G

WIND SECTOR	SECTOR NUMBER	10-METER WIND SPEED (mph)						SECTOR PCT.	MEAN SPEED
		1-3	4-7	8-12	13-18	19-24	>24		
NNE	1	0.000	0.024	0.000	0.000	0.000	0.000	0.024	4.900
NE	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	9	0.000	0.024	0.000	0.000	0.000	0.000	0.024	4.800
SW	10	0.012	0.036	0.000	0.000	0.000	0.000	0.048	4.500
WSW	11	0.000	0.060	0.000	0.000	0.000	0.000	0.060	3.800
W	12	0.012	0.096	0.000	0.000	0.000	0.000	0.108	4.244
WNW	13	0.012	0.060	0.000	0.000	0.000	0.000	0.072	4.867
NW	14	0.000	0.072	0.000	0.000	0.000	0.000	0.072	4.517
NNW	15	0.012	0.024	0.000	0.000	0.000	0.000	0.036	3.833
N	16	0.000	0.012	0.000	0.000	0.000	0.000	0.012	3.700
		-----	-----	-----	-----	-----	-----	-----	-----
SUBTOTALS		0.048	0.408	0.000	0.000	0.000	0.000	0.456	4.371
CALM								0.000	0
								-----	-----
								PASQUILL CATEGORY TOTAL (%):	0.456 4.371

TOTAL HOURLY OBSERVATIONS FOR YEAR : 8760

NUMBER OF VALID CATEGORY OBSERVATIONS: 38

VALID DATA PERCENTAGE FOR YEAR : 0.434

F L O R I D A P O W E R & L I G H T C O M P A N Y

ST. LUCIE PLANT

PERIOD OF RECORD: Jan. 1, 1994 to Dec. 31, 1994

ANNUAL REPORT OF PERCENT FREQUENCY OF WIND DIRECTION
AND WIND SPEED BY VERTICAL STABILITY CATEGORY

ALL PASQUILL CATEGORIES

WIND SECTOR	SECTOR NUMBER	10-METER WIND SPEED (mph)						SECTOR PCT.	MEAN SPEED
		1-3	4-7	8-12	13-18	19-24	>24		
NNE	1	0.360	1.715	1.283	0.408	0.000	0.000	3.766	7.523
NE	2	0.420	1.871	1.667	0.923	0.456	0.072	5.409	9.682
ENE	3	0.468	2.411	4.138	2.051	0.468	0.072	9.607	10.224
E	4	0.456	3.370	6.009	2.099	0.204	0.060	12.197	9.547
ESE	5	0.348	4.473	4.593	1.103	0.108	0.024	10.650	8.511
SE	6	0.324	4.342	4.462	1.271	0.192	0.012	10.602	8.620
SSE	7	0.264	2.135	2.675	0.816	0.168	0.024	6.081	9.105
S	8	0.192	1.415	2.710	0.684	0.072	0.012	5.085	9.206
SSW	9	0.204	2.159	1.631	0.504	0.108	0.000	4.605	8.190
SW	10	0.312	2.375	0.744	0.384	0.012	0.000	3.826	6.914
WSW	11	0.456	2.063	0.528	0.192	0.000	0.000	3.238	5.906
W	12	0.732	2.423	1.067	0.360	0.084	0.000	4.665	6.714
WNW	13	0.492	2.387	1.199	0.276	0.000	0.000	4.354	6.745
NW	14	0.444	2.710	2.207	0.108	0.000	0.000	5.469	6.873
NNW	15	0.492	2.003	1.991	0.132	0.000	0.012	4.629	7.315
N	16	0.360	2.698	2.423	0.336	0.000	0.000	5.817	7.568
SUBTOTALS		6.320	40.549	39.326	11.645	1.871	0.288	100.000	8.390
CALM								0.000	0
PASQUILL CATEGORY TOTAL (%) :								100.000	8.390

TOTAL HOURLY OBSERVATIONS FOR YEAR : 8760

NUMBER OF VALID CATEGORY OBSERVATIONS: 8338

VALID DATA PERCENTAGE FOR YEAR : 95.183



St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
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Attachment 2

CPRD MI Dose Requirements for the year 1994

CFRD MI Dose Data Requirements for the Year 1994

Air Dilution Calculations

1. Stack or vent height (m) 50.8
2. Bldg. height (m) 57.8
3. Bldg. Minimum cross-sectional area (m²) 4500.
4. Stack or vent internal diameter (m) 1.83
5. Stack or vent velocity (m/s) 15.4 or flow (m³/s) _____
6. Wind sensor height for JFD (m) 10

7. Joint frequency distribution (JFD) of direction, windspeed, and stability in XQQDQQ format of frequencies of occurrence for the year, 1993, in either hours or percent: 8338

A matrix consisting of 16 columns for the directions starting with north and proceeding clockwise to end with NNW. The directions denote the direction from which the wind is blowing.

The rows represent the various speed classes for each of up to 14 stability categories: Pasquill A through F (G may be optional).

The array should be placed in an IBM compatible text file on either a 360K, 1.2M, or 1.4M floppy disk. Examples are given in Exhibits 1 through 4 for two acceptable formats.

8. Wind speed classes for the JFD (m/s) or Mi/hr (Indicate which). A maximum of fourteen classes may be designated, although only 6 or 7 are typical. If calms not considered separate class, see next item.

1 From <u>1</u> to <u>3</u>	8 From _____ to _____
2 From <u>4</u> to <u>7</u>	9 From _____ to _____
3 From <u>8</u> to <u>12</u>	10 From _____ to _____
4 From <u>13</u> to <u>18</u>	11 From _____ to _____
5 From <u>19</u> to <u>24</u>	12 From _____ to _____
6 From <u>>24</u> to _____	13 From _____ to _____
7 From _____ to _____	14 From _____ to _____

9. If calms not included in JFD, enter calms (hours or %) for each stability category.

A <u>0</u>	D <u>0</u>
B <u>0</u>	E <u>0</u>
C <u>0</u>	F <u>0</u>
	G <u>0</u> (If used)

*If percent is used, please indicate the number of hours of data that were actually used to determine the percent, e.g. if there were not data losses this would be the number of hours in the year.

Locations of interest	Distance (m)	Direction (N, NNE, etc.)
1. Exclusion Area Boundary (Location of max. concentration)	<u>1561</u>	<u>N</u>
2. Nearest (or maximal) real residence	<u>1609</u>	<u>N</u>
3. Nearest (or maximal) vegetable garden	<u>1609</u>	<u>N</u>
4. Nearest (or maximal) pasture:	<u>6840</u>	<u>W</u>

Note: For items 2 - 4, "nearest" refers to the location of maximum air concentration for a residence, garden, or pasture. We realize that the nearest location may not be the maximal location. For pasture, indicate whether for cows or goats. Beef cows will be assumed to graze at the same location.

St. Lucie Units 1 and 2
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Attachment 3

Liquid Dose Assessment Data



2
2
2

Liquid Dose Assessment Data

Reactor Site: St. Lucie

Year: 1994

Dilution:

Provide mixing ratios or dilution factors for both population and maximally exposed individual. (Dilution factors and mixing ratios are reciprocals.) A value of 1 would indicate no mixing: concentration of effluent at outfall. If complete mixing in stream (river or estuary) state "complete mixing."

Path	Population	Max. Individ.	Remarks
Drinking Water	<u>N/A</u>	<u>N/A</u>	<u>No Fresh Water</u>
Fish	<u>N/A</u>	<u>1.0</u>	} <u>No Mixing factor allowed</u> <u>at outfall point in Atlantic</u> <u>Ocean</u>
Invertebrates	<u>N/A</u>	<u>1.0</u>	
Other	<u>N/A</u>	<u>N/A</u>	

Explain any unusual circumstances:

Provide values for bioaccumulation factors (L/kg) for your site if different than that of Reg. Guide 1.109. Indicate whether for population, Max. Individual, or both.

Element	Fish	Invertebrate	Remarks
<u> </u>	<u> </u>	<u> </u>	<u>R.G. 1.109</u> Max Individual <u> </u> Default Values
<u> </u>	<u> </u>	<u> </u>	<u> </u>