

DPR 70

REPORT NO. RERR-2

UNIT NO. 1  
RADIOACTIVE EFFLUENT RELEASE REPORT  
JANUARY - JUNE 1977

SALEM NUCLEAR GENERATING STATION  
Public Service Electric and Gas Company

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SALEM NUCLEAR GENERATING STATION  
50-272

UNIT NO. 1  
RADIOACTIVE EFFLUENT RELEASE SUPPORT  
JANUARY 1, 1977-JUNE 30, 1977

Introduction

The Salem Nuclear Generating Station, which went critical on December 11, 1976, has continued in operation through June 30, 1977. During the early part of this reporting period, the station was operating at a capacity of less than 20%, however, during the latter part of the reporting period, the plant has consistently operated near 100% power. In general, the specific activity in each of the waste streams was relatively low.

# EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

## A. SUMMARY INFORMATION

### 1.0 Regulatory Limits

#### 1.1 Fission and Activation Gases

##### Noble Gases

Our absolute  $2.0 Q_{tv} K_v < 1$

instantaneous

limits are:  $0.33 Q_{tv} (L_v + 1.1 N_v) < 1$

calculated to be  $5.50E5$  microcuries/sec.  
for the period of record

Our quarterly  $13 Q_{tv} N_v < 1$

limits are:  $6.3 Q_{tv} M_v < 1$

calculated to be  $5.92E04$  microcuries/sec.  
for the period of record

and  
Our twelve month  $25 Q_{tv} N_v < 1$

Limits are:  $13 Q_{tv} M_v < 1$

calculated to be  $3.07E04$  microcuries/sec.  
for the period of record

In addition, no gas decay tank may contain more than 41,000 curies. All symbols used are as stated in Section 2.3.3 of the Environmental Technical Specifications (ETS). The release limits for the Salem Nuclear Generating Station are not fixed numbers, but depend upon the radioactive isotopes present in the effluent.

#### 1.2 Iodines

(Same as Part C)

#### 1.3 Particulates, Half Live > 8 days

The regulatory limit for iodines and particulates is:

### 1.3 (Continued)

Our absolute

instantaneous

limit is:  $(1.5 \times 10^5) Q_v < 1$

Our quarterly 2 curies of I-131

limit is:  $Q_v \times 13 \times (1.5 \times 10^5) < 1$

Our twelve month 25 x  $(1.5 \times 10^5)$   $Q_v < 1$

limit is: 4 curies of I-31

All symbols used are as stated in Section 2.3.3 of the Salem ETS.

### 1.4 Liquid Effluents

The regulatory limits for liquids are governed by 10CFR20, Appendix B, Table II, Column 2.

In addition, the following limits apply:

At no time shall any radwaste tank contain more than 10 Ci of activity. Noble gases and tritium are excluded from this limit.

The cumulative release of radioactive effluents, excluding tritium and dissolved gases, shall be less than 10 Ci in a calendar quarter for each unit.

The cumulative release of radioactive effluents, excluding tritium and dissolved gases, shall be less than 20 Ci in any twelve consecutive months.

## 2.0 Maximum Permissible Concentrations

Provide the MPC's used in determining allowable release rates for concentrations.

- a. Fission Gases - MPC values were not used to determine the maximum release rate.
- b. Iodines - MPC values were not used to determine the maximum release rates.
- c. Particulates, Half Lives  $> 8$  days - No MPC limit used to determine the maximum release rates.
- d. Liquid effluents - See 10CFR20, Appendix B, Table 11, Column 2.

## 3.0 Average Energy

Provide the average energy E of the radionuclide mixture in releases of fission and activation gases, if applicable.

Release limits are not based upon average energy.

#### 4.0 Measurements and Approximation of Total Radioactivity

- 4.1 Liquid effluents are monitored in accordance with Table 2.3-3 of the Salem Nuclear Generating Station Environmental Technical Specifications (ETS). During the period of record, all waste from the chemical drain tank and the laundry and hot shower tanks were routed to the hold-up tanks for monitoring and discharge. These tanks were then recirculated the equivalent of two tank volumes in order to produce uniform mixing and a sample was extracted and analyzed before any release. Although the results of laboratory analysis have indicated the presence of the Isotope F-18, it is suspected that the response of the multi-channel analyzer (MCA) was probably due to the annihilation of a beta particle accompanied by the liberation of 0.511 Mev energy. Since the F-18 isotope also emits a 0.511 Mev gamma ray it is impossible to discern F-18 from annihilation energy by sole reliance on the MCA. To be conservative F-18 is being reported as present in the effluent released.
- 4.2 Gaseous effluent streams are monitored in accordance with Table 2.3-4 of the Salem Station ETS. The station's plant vent is the final release point of all planned gaseous effluents. This location is continually monitored by four very sensitive Geiger-Mueller tubes and is sampled for iodine and particulates with a charcoal cartridge and CESCO filter paper connected in series to a high volume air sampler. The filter and charcoal are changed weekly and analyzed in the laboratory. Sampling is also performed on all gas decay tanks prior to release to the environment. The results of these analyses is used as the basis for the cumulative release of gaseous effluent into the environment. All tritium samples were taken by bubbling gas through water and then counting the tritiated water on a liquid scintillation counter.
- 4.3 The estimated total error of the reported continuous gaseous releases is within 50%. This error is due primarily to variability of waste stream flow rates and changes in isotopic distributions of waste streams between sampling periods. The estimated total error of the reported batch gaseous releases is within 10%.

The estimated total error of reported liquid releases is within 25% and is primarily due to conservatism in the assumptions of release volumes of liquid holdup tanks. That is, liquid releases were slightly overestimated.

#### 5.0 Batch Releases

Batch releases of gaseous and liquid effluent are provided in Tables 4A - 4B.

#### 6.0 Abnormal Releases

There were no abnormal releases to an unrestricted area during this reporting period.

Part B. Gaseous Effluents

See Summary Tables 1A - 1C.

Part C. Liquid Effluents

See Summary Tables 2A and 2B.

Part D. Solid Waste

See Summary Table 3.



## Part E. Radiological Impact on Man

The calculated doses in this section pertain to those received in unrestricted areas. The population dose impact is based on the expected 1980 population and sites specific data i.e., food production, milk production, feed for milch animals and seafood production, gathered during 1976. It is expected that this data will be representative of 1977 data.

The doses were calculated using methods described using Regulatory Guide 1.109.

### Liquid Pathways

Doses to individuals in the population from liquid pathways is primarily the seafood ingestion pathway. The maximum total body dose to an individual was calculated to be  $2.22\text{E-}4$  mrem. The calculated population total body dose was  $1.08\text{E-}3$  man-rem. The average total body dose to the population within fifty miles of the site was  $2.32\text{E-}5$  mrem. The highest organ dose from liquid pathways was  $1.95\text{E-}3$  mrem to the gastrointestinal tract.

### Air Pathways

The resulting maximum unrestricted area, whole body and skin dose were calculated to be  $5.86\text{E-}4$  mrem and  $9.01\text{E-}4$  mrem respectively. The calculated population total body dose was  $1.74\text{E-}2$  man-rem. The average total body dose to the population within fifty miles of the site was  $3.25\text{E-}6$  mrem/person.

### Direct Radiation

The direct radiation resulting from station operation to individuals in unrestricted areas is considered to be negligible.

### Maximum Organ Doses

The maximum organ doses from radioactive iodines and particulates was  $5.78\text{E-}4$  mrem to the thyroid. The second highest organ dose was calculated to be  $7.07\text{E-}4$  mrem to bone.

## Part F. Meteorological Data

Cumulative joint wind frequency distribution by atmospheric stability class are provided for the first and second quarters of 1977 as Table 5 and 6. Tables 7 and 8 provide joint wind frequency during Batch Releases.

TABLE 1A  
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1977)  
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	1st Quarter	2nd Quarter	Est. Total (2) Error %
<b>A. Fission &amp; activation gases</b>				
1. Total release	Ci	1.28E+01	4.55E-00	5.00E+01
2. Average release rate for period	uCi/sec.	8.18E-01	2.91E-01	
3. Percent of technical specification limit	%	1.38E-05	7.69E-05	
(See ETS Spec. 2.3.3.b)				
(1)				
<b>B. Iodines</b>				
1. Total iodine-131	Ci	-	-	
2. Average release rate for period	uCi/sec.			
3. Percent of technical specification limit	%			
<b>C. Particulates</b>				
1. Particulates with half-lives 8 days	Ci	2.34E-07	-	5.00E+01
2. Average release rate for period	uCi/sec.	1.49E-08		
3. Percent of technical specification limit	%	1.00E-06		
4. Gross alpha radioactivity	Ci	4.90E-8	1.09E-10	
<b>D. Tritium</b>				
1. Total release	Ci	1.42E-3	1.24E-2	5.00E+01
2. Average release rate for period	uCi/sec.	9.08E-5	7.93E-4	
3. Percent of technical specification limit	%	N/A	N/A	

(1) No detectable levels of iodine 131 were present in releases for the period from January - June, 1977.

(2) For batch releases the estimated overall error is within 10%.

TABLE 1B  
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1977)  
GASEOUS EFFLUENTS-ELEVATED RELEASES

		CONTINUOUS MODE		BATCH MODE	
Nuclides Released	Unit	1st Quarter	2nd Quarter	1st Quarter	2nd Quarter
1. Fission gases (1)					
Krypton-85	Ci				
Krypton-85m	Ci			1.03E-06	5.94E-03
Krypton-87	Ci				1.69E-03
Krypton-88	Ci				6.26E-03
Xenon-133	Ci	1.21E+01	MDL	7.66E-01	1.51E+00
Xenon-135	Ci			4.06E-03	3.50E-02
Xenon-135M	Ci				
Xenon-138	Ci				
Others (specify)	Ci				
Argon-41	Ci			9.81E-06	2.32E-02
Fluorine-18	Ci			1.25E-05	2.97E+00
Unidentified	Ci				
Total for period	Ci	1.21E+01	MDL	7.70E-01	4.55E+00
2. Iodines (2)					
Iodine-131	Ci				
Iodine-133	Ci				
Iodine-135	Ci				
Total for period					
3. Particles					
Strontium-89	Ci	1.38E-07	MDL		
Strontium-90	Ci	9.64E-08	MDL		
Cesium-134	Ci				
Cesium-137	Ci				
Barium-lanthanum-140	Ci				
Others (specify)	Ci				
	Ci				
	Ci				
Unidentified Gross Alpha	Ci	4.90E-08	1.09E-10	7.39E-13	

TABLE 1B  
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1977)  
GASEOUS EFFLUENTS-ELEVATED RELEASES  
(CONTINUED)

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		1st Quarter	2nd Quarter	1st Quarter	2nd Quarter
4. Tritium	Ci	1.42E-3	1.24E-2	3.36E-01	2.35E-03

- 1) Other fission gases were below the detectable level (LLD) (Approximately less than  $6.67 \text{ E-7 uCi/ml}$ ).
- 2) Weekly sampling of the plant vent has indicated that there is no detectable Iodine activity (Approximately less than  $2.54\text{-}14 \text{ uCi/ml}$  for I-131).

TABLE 1C  
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1977  
GASEOUS EFFLUENTS-GROUND-LEVEL RELEASES

Nuclides Releases	Unit	3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
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There were no Ground Level Releases for the Period  
of Record.

TABLE 2A

## EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1977)

## LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	Units	1st Quarter	2nd Quarter	Est. Total Error, %
<b>A. Fission and activation products</b>				
1. Total release (not including tritium, gases, alpha)	Ci	1.52E-1	2.80E-1	2.50E01
2. Average diluted concentration during period	uCi/ml	7.41E-09	1.37E-08	
3. Percent of applicable limit Tech Spec App. B 2.3.1.b	%	1.52E00	2.80E00	
<b>B. Tritium</b>				
1. Total release	Ci	2.21E+1	8.95E+1	2.50E01
2. Average diluted concentration during period	uCi/ l	1.08E-06	4.37E-06	
3. Percent of applicable limit	%	N/A	N/A	
<b>C. Dissolved and entrained gases</b>				
1. Total release	Ci	1.12E-2	2.08E-2	2.50E01
2. Average diluted concentration during period	uCi/ml	5.46E-10	1.01E-09	
3. Percent of applicable limit	%	N/A	N/A	
<b>D. Gross alpha radioactivity</b>				
1. Total release	Ci	LLD	LLD	
<b>E. Volume of waste release (prior to dilution - Batch Release)</b>				
	liters	4.39E06	4.44E06	1.0E+01
<b>F. Volume of dilution water used during period - Batch Release</b>				
	liters	2.05E10	2.07E10	2.5E+01

N/A - Not Applicable

TABLE 2B

## EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)

## LIQUID EFFLUENTS (1)

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		1st Quarter	2nd Quarter	1st Quarter	2nd Quarter
Strontium-89	Ci	. E	. E	3.28E-5	LLD
Strontium-90	Ci	. E	. E	1.47E-4	1.47E-4
Cesium-134	Ci	. E	. E	LLD	LLD
Cesium-137	Ci	. E	. E	LLD	9.88E-5
Iodine-131	Ci	. E	. E	LLD	8.90E-4
Iodine-133	Ci	. E	. E	1.99E-4	1.55E-3
Cobalt-58	Ci	. E	. E	1.16E-1	1.53E-1
Cobalt-60	Ci	. E	. E	1.07E-2	3.95E-2
Iron-59	Ci	. E	. E	LLD	8.40E-4
Zinc-65	Ci	. E	. E	LLD	LLD
Manganese-54	Ci	. E	. E	1.77E-2	3.43E-2
Chromium-51	Ci	. E	. E	7.53E-4	8.40E-3
Zirconium-niobium-95	Ci	. E	. E	.	2.34E-4
Molybdenum-99	Ci	. E	. E	.	LLD
Cerium-144	Ci	. E	. E	4.81E-4	LLD
Barium-Lanthanum-140	Ci	. E	. E	. E	LLD
Cerium-141	Ci	. E	. E	. E	.
Tungsten-187	Ci	. E	. E	8.17E-4	1.12E-3
Others (specify)	Ci	. E	. E	. E	. E
Na 24	Ci	. E	. E	4.88E-3	7.65E-2
Tritium	Ci	2.1E-5	2.20E-2	2.21E+1	8.95E+1
	Ci	. E	. E	. E	. E
	Ci	. E	. E	. E	. E
Unidentified (Gross Alpha)	Ci	. E	1.09E-10	LLD	LLD
Total for period (above) excluding H3	Ci	LLD	LLD	1.52E-1	2.80E-1
Xenon-133m		LLD	LLD	1.28E-5	LLD
Xenon-133	Ci	.	. E	1.12E-2	2.08E-2
Xenon-135	Ci	.	. E	. E	7.48E-5

(1) The Lower Limit of Detection (LLD) which is approximately 1.00 E-8 uCi/ml (Co 60).

TABLE 3

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1976

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

There were no solid waste or irradiated fuel shipments during this period of record.



TABLE 4A

SALEM NUCLEAR GENERATING STATION

SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED  
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates January 1 - March 31, 1977
2. Type of release (Gas)
3. Number of releases during the 1st Quarter 3.10E01
4. Total time duration for all releases of type listed above  
6.03E3  
minutes
5. Maximum duration for releases of type listed above 4.6E2  
minutes
6. Average duration for all releases of type listed above  
1.9E2  
minutes
7. Minimum duration for release of type listed above 8.2E1  
minutes
8. For liquid batch releases only, provide the average stream  
flow (dilution flow) during the period of release. N/A

TABLE 4A (Cont'd)

SALEM NUCLEAR GENERATING STATION

SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED  
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates April 1 - June 30, 1977
2. Type of release (Gas)
3. Number of releases during the 2nd Quarter 1.60E01
4. Total time duration for all releases of type listed above  
2.34E3  
minutes
5. Maximum duration for releases of type listed above 4.70E2  
minutes
6. Average duration for all releases of type listed above  
1.46E2  
minutes
7. Minimum duration for release of type listed above 8.7E1  
minutes
8. For liquid batch releases only, provide the average stream  
flow (dilution flow) during the period of release. N/A

TABLE 4B

SALEM NUCLEAR GENERATING STATION

SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED  
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates January 1 - March 31, 1977
2. Type of release (Liquid)
3. Number of releases during the 1st Quarter 64
4. Total time duration for all releases of type listed above  
2.81E04  
minutes
5. Maximum duration for releases of type listed above 1.31E3  
minutes
6. Average duration for all releases of type listed above  
4.93E2  
minutes
7. Minimum duration for release of type listed above 40  
minutes
8. For liquid batch releases only, provide the average stream  
flow (dilution flow) during the period of release. 1.85E5  
gpm

TABLE 4B (Cont'd)

SALEM NUCLEAR GENERATING STATION

SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED  
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates April 1 - June 30, 1977
2. Type of release (Liquid)
3. Number of releases during the 2nd Quarter 67
4. Total time duration for all releases of type listed above  
2.74E04  
minutes
5. Maximum duration for releases of type listed above 1.96E03  
minutes
6. Average duration for all releases of type listed above  
34  
minutes
7. Minimum duration for release of type listed above 1.47E2  
minutes
8. For liquid batch releases only, provide the average stream  
flow (dilution flow) during the period of release. 1.85E5  
gpm

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 33177

STABILITY CLASS: EXTREMELY UNSTABLE DELTA T <-1.9 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WIND DIREC- TION	WINDSPEED (MPH) AT 150 FEET						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 33177

STABILITY CLASS: MODERATELY UNSTABLE DELTA T -1.9 TO -1.7 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	3	3
NNW	0	0	0	0	0	0	0
TOTAL	0	0	1	0	0	3	4

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 1

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 33177

STABILITY CLASS: SLIGHTLY UNSTABLE DELTA T -1.7 TO -1.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WIND DIREC- TION	WINDSPEED (MPH) AT 150 FEET						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	1	1	0	0	0	2
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	1	1	0	2
WNW	0	0	3	1	1	1	6
NW	0	0	0	7	4	11	22
NNW	0	0	0	0	2	1	3
TOTAL	0	1	4	9	8	13	35

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 1

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 33177

STABILITY CLASS: NEUTRAL DELTA T -1.5 TO -0.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	11	1	0	0	0	12
NNE	1	10	5	0	0	0	16
NE	0	4	5	0	0	0	9
ENE	0	1	1	2	0	0	4
E	0	4	3	2	0	0	9
ESE	0	0	0	2	0	0	2
SE	1	4	7	8	1	1	22
SSE	2	7	9	6	8	2	34
S	3	8	10	8	1	0	30
SSW	2	6	9	1	0	0	18
SW	2	3	8	3	1	0	17
WSW	2	7	9	18	15	4	55
W	1	11	10	55	66	41	184
WNW	0	18	24	57	87	71	257
NW	0	12	25	58	56	63	214
NNW	0	5	12	7	6	2	32
TOTAL	14	111	138	227	241	184	915

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 50



ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 33177

STABILITY CLASS: SLIGHTLY STABLE DELTA T -0.5 TO 1.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	1	2	15	3	0	0	21
NNE	1	3	5	2	0	0	11
NE	0	5	9	7	0	0	21
ENE	1	2	4	4	1	0	12
E	0	6	6	3	0	0	15
ESE	0	2	1	2	2	1	8
SE	3	8	9	22	5	17	64
SSE	1	11	21	13	1	2	49
S	0	9	10	14	0	0	33
SSW	4	7	16	11	8	4	50
SW	1	7	18	16	7	7	56
WSW	1	6	16	17	15	2	57
W	0	10	15	35	4	5	69
WNW	6	5	33	53	15	10	122
NW	0	7	19	39	33	7	105
NNW	2	4	10	13	5	0	34
TOTAL	21	94	207	254	96	55	727

PERIODS OF CALM (HOUPS): 0

HOURS OF MISSING DATA: 30

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 33177

STABILITY CLASS: MODERATELY STABLE DELTA T 1.5 TO 4.0 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	1	1	0	0	0	2
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	2	2	0	0	0	4
E	0	0	1	1	1	0	3
ESE	1	4	4	2	0	1	12
SE	0	3	8	16	9	17	53
SSE	0	0	8	8	6	1	23
S	0	6	5	9	8	1	29
SSW	1	8	12	17	3	0	41
SW	0	1	17	14	7	0	39
WSW	0	1	4	7	4	0	16
W	0	0	2	12	2	0	16
WNW	0	1	3	2	0	0	6
NW	0	1	1	3	0	0	5
NNW	0	0	1	1	0	0	2
TOTAL	2	28	69	92	40	20	251

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 6

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 33177

STABILITY CLASS: EXTREMELY STABLE DELTA T >4.0 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	1	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	1	2	0	0	0	3
SE	0	1	2	7	5	7	22
SSE	1	0	8	12	14	13	48
S	0	3	9	14	8	0	34
SSW	0	0	1	4	0	0	5
SW	0	1	0	5	1	0	7
WSW	0	1	0	2	1	0	4
W	0	0	0	2	3	0	5
WNW	0	1	0	2	0	0	3
NW	0	0	1	0	1	0	2
NNW	0	1	1	0	0	0	2
TOTAL	1	9	25	48	33	20	136

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 3

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 177 TO 63077

STABILITY CLASS: EXTREMELY UNSTABLE DELTA T <-1.9 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	1	0	0	0	1
E	0	0	1	3	0	0	4
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	1	0	0	0	0	1
SW	0	1	0	0	0	0	1
WSW	0	0	0	0	0	0	0
W	0	0	0	3	0	0	3
WNW	0	0	0	0	0	0	0
NW	0	0	1	1	1	0	3
NNW	0	0	0	0	1	0	1
TOTAL	0	2	4	7	2	0	15

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 177 TO 63077

STABILITY CLASS: MODERATELY UNSTABLE DELTA T -1.9 TO -1.7 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WIND DIREC- TION	WINDSPEED (MPH) AT 150 FEET						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	0	1	0	0	1	0	2
NNE	0	0	1	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	3	1	0	0	4
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	2	2	0	4
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	1	0	0	0	0	1
SW	0	1	0	3	0	0	4
WSW	0	0	0	2	0	0	2
W	0	2	3	6	0	0	11
WNW	0	1	3	3	0	0	7
NW	0	0	3	2	8	2	15
NNW	1	2	1	3	3	0	10
TOTAL	1	8	14	22	14	2	61

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 1

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 177 TO 63077

STABILITY CLASS: SLIGHTLY UNSTABLE DELTA T -1.7 TO -1.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	1	0	0	0	0	1
NNE	0	1	0	1	0	0	2
NE	0	0	1	0	0	0	1
ENE	0	3	0	0	0	0	3
E	0	0	0	1	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	1	2	1	0	4
SSE	0	0	1	4	2	0	7
S	0	2	1	0	0	0	3
SSW	0	1	0	0	0	0	1
SW	0	2	1	1	0	0	4
WSW	0	0	2	2	0	0	4
W	0	0	1	1	0	0	2
WNW	0	0	5	2	1	1	9
NW	0	0	1	7	4	4	16
NNW	0	1	1	4	1	0	7
TOTAL	0	11	15	25	9	5	65

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 1

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 177 TO 63077

STABILITY CLASS: NEUTRAL DELTA T -1.5 TO -0.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	1	8	26	12	7	11	65
NNE	0	5	5	2	0	0	12
NE	0	4	10	7	0	0	21
ENE	0	5	10	5	3	0	23
E	2	5	8	7	0	0	22
ESE	0	3	0	2	0	0	5
SE	1	3	6	11	13	3	37
SSE	1	6	17	39	34	5	102
S	0	18	31	35	13	0	97
SSW	5	11	11	3	2	0	32
SW	2	14	16	19	6	0	57
WSW	0	10	16	21	5	2	54
W	0	6	24	26	23	13	92
WNW	1	10	14	11	9	7	52
NW	0	12	13	30	25	10	90
NNW	2	14	16	20	5	3	60
TOTAL	15	134	223	250	145	54	821

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 177 TO 63077

STABILITY CLASS: SLIGHTLY STABLE DELTA T -0.5 TO 1.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	1	10	16	25	4	1	57
NNE	2	5	14	6	2	0	29
NE	1	3	7	3	1	0	15
ENE	5	4	8	1	0	0	18
E	5	9	9	2	0	0	25
ESE	2	4	6	4	0	0	16
SE	1	3	19	16	10	13	62
SSE	1	9	16	21	9	1	57
S	2	7	10	17	5	0	41
SSW	0	8	12	32	9	0	61
SW	2	11	14	36	11	4	78
WSW	0	5	17	18	4	0	44
W	1	11	23	34	4	3	76
WNW	0	11	17	23	1	0	52
NW	1	7	14	23	8	3	56
NNW	0	5	11	21	4	2	43
TOTAL	24	112	213	282	72	27	730

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 0



ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 177 TO 63077

STABILITY CLASS: MODERATELY STABLE DELTA T 1.5 TO 4.0 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	1	8	7	2	0	18
NNE	0	1	2	6	0	0	9
NE	1	1	1	0	0	0	3
ENE	1	2	0	0	0	0	3
E	1	2	2	0	0	0	5
ESE	1	1	1	0	0	0	3
SE	0	1	5	6	1	1	14
SSE	1	3	3	8	7	3	25
S	0	2	10	4	0	0	16
SSW	2	3	1	5	1	1	13
SW	0	0	5	9	3	1	18
WSW	0	0	8	11	1	0	20
W	0	0	9	10	2	0	21
WNW	1	1	5	3	0	0	10
NW	2	1	3	1	0	0	7
NNW	1	0	3	0	0	0	4
TOTAL	11	19	66	70	17	6	189

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 177 TO 63077

STABILITY CLASS: EXTREMELY STABLE DELTA T >4.0 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	4	0	0	0	4
NNE	0	0	0	0	0	0	0
NE	0	0	1	4	0	0	5
ENE	0	0	1	1	0	0	2
E	0	1	1	0	0	0	2
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	3	1	1	0	5
S	0	0	3	4	2	0	9
SSW	0	0	1	4	0	0	5
SW	1	4	14	6	1	0	26
WSW	0	5	16	7	1	0	29
W	0	0	8	6	1	0	15
WNW	0	0	9	5	0	0	14
NW	0	3	8	1	0	0	12
NNW	0	2	3	1	0	0	6
TOTAL	1	15	72	40	6	0	134

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 166

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 32977 BATCH RELEASE

STABILITY CLASS: EXTREMELY UNSTABLE DELTA T <-1.9 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 32977 BATCH RELEASE

STABILITY CLASS: MODERATELY UNSTABLE DELTA T -1.9 TO -1.7 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 32977 BATCH RELEASE

STABILITY CLASS: SLIGHTLY UNSTABLE DELTA T -1.7 TO -1.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	1	1	0	2
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	1	1	0	2

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 32977 BATCH RELEASE

STABILITY CLASS: NEUTRAL DELTA T -1.5 TO -0.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	2	0	0	0	0	2
ESE	0	0	0	0	0	0	0
SE	0	0	0	1	0	0	1
SSE	1	0	1	1	0	0	3
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	1	1	0	0	0	0	2
WSW	0	0	0	1	0	0	1
W	0	0	0	4	6	9	19
WNW	0	0	0	3	2	0	5
NW	0	0	1	5	5	6	17
NNW	0	0	0	0	1	0	1
TOTAL	2	3	2	15	14	15	51

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 4

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 32977

BATCH RELEASE

STABILITY CLASS: SLIGHTLY STABLE DELTA T -0.5 TO 1.5 °

LAPSE RATE IN DEG C/100 METERS

EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	1	0	0	0	0	1
ESE	0	1	0	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	0	1	0	0	1
S	0	0	1	0	0	0	1
SSW	0	0	1	1	2	0	4
SW	0	0	1	4	1	0	6
WSW	0	0	1	3	3	0	7
W	0	1	1	3	0	0	5
WNW	0	0	0	2	0	0	2
NW	0	1	1	4	1	0	7
NNW	0	0	0	3	0	0	3
TOTAL	0	4	6	21	7	0	38

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 11

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 32977 BATCH RELEASE

STABILITY CLASS: MODERATELY STABLE DELTA T 1.5 TO 4.0 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	1	0	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	1	0	0	0	1
SSE	0	0	1	2	0	0	3
S	0	1	0	2	0	0	3
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	3	0	0	3
NNW	0	0	0	0	0	0	0
TOTAL	0	2	2	7	0	0	11

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0



ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 1 177 TO 32977 BATCH RELEASE

STABILITY CLASS: EXTREMELY STABLE DELTA T >4.0 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	1	1	0	0	2
S	0	0	1	1	0	0	2
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	1	0	0	0	0	1
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	1	0	0	0	0	1
TOTAL	0	2	2	2	0	0	6

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 677 TO 61977 BATCH RELEASE

STABILITY CLASS: EXTREMELY UNSTABLE DELTA T <-1.9 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 677 TO 61977 BATCH RELEASE

STABILITY CLASS: MODERATELY UNSTABLE DELTA T -1.9 TO -1.7 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

\*\*\*\*\*

WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	2	2
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	2	2

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 677 TO 61977

BATCH RELEASE

STABILITY CLASS: SLIGHTLY UNSTABLE DELTA T -1.7 TO -1.5 °

LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	1	0	0	0	1
W	0	0	0	0	0	0	0
WNW	0	0	1	0	0	0	1
NW	0	0	0	0	0	2	2
NNW	0	0	0	0	0	0	0
TOTAL	0	0	2	0	0	2	4

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 677 TO 61977 BATCH RELEASE

STABILITY CLASS: NEUTRAL DELTA T -1.5 TO -0.5 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	1	1	0	2
NNE	0	1	0	0	0	0	1
NE	0	1	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	1	1	0	2
SSE	0	0	1	1	2	0	4
S	0	0	0	2	2	0	4
SSW	0	0	0	0	1	0	1
SW	0	0	0	0	0	0	0
WSW	0	0	2	1	1	0	4
W	0	0	2	2	1	1	6
WNW	0	0	3	3	2	0	8
NW	0	0	0	2	0	1	3
NNW	0	1	1	0	0	0	2
TOTAL	0	3	9	13	11	2	38

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 677 TO 61977 BATCH RELEASE

STABILITY CLASS: SLIGHTLY STABLE DELTA T -0.5 TO 1.5  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	1	2	0	0	3
NNE	0	0	1	0	0	0	1
NE	0	0	1	0	0	0	1
ENE	0	0	1	0	0	0	1
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	1	1	3	5
SSE	0	1	0	2	0	0	3
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	2	0	0	2
WSW	0	0	0	0	1	0	1
W	0	1	0	0	0	0	1
WNW	0	1	0	0	0	0	1
NW	0	0	1	0	0	0	1
NNW	0	0	0	0	0	0	0
TOTAL	0	3	6	7	2	3	21

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 677 TO 61977 BATCH RELEASE

STABILITY CLASS: MODERATELY STABLE DELTA T 1.5 TO 4.0 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	1	0	0	0	1
ESE	0	0	1	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	2	0	0	0	2

PERIODS OF CALM (HOURS): 0  
HOURS OF MISSING DATA: 0

ARTIFICIAL ISLAND  
SALEM UNIT 1

PERIOD OF RECORD: 4 677 TO 61977

BATCH RELEASE

STABILITY CLASS: EXTREMELY STABLE DELTA T >4.0 °  
LAPSE RATE IN DEG C/100 METERS  
EVALUATED USING DELTA T 300-33 FT

ELEVATION: 150 FEET

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WINDSPEED (MPH) AT 150 FEET

WIND DIREC- TION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 9