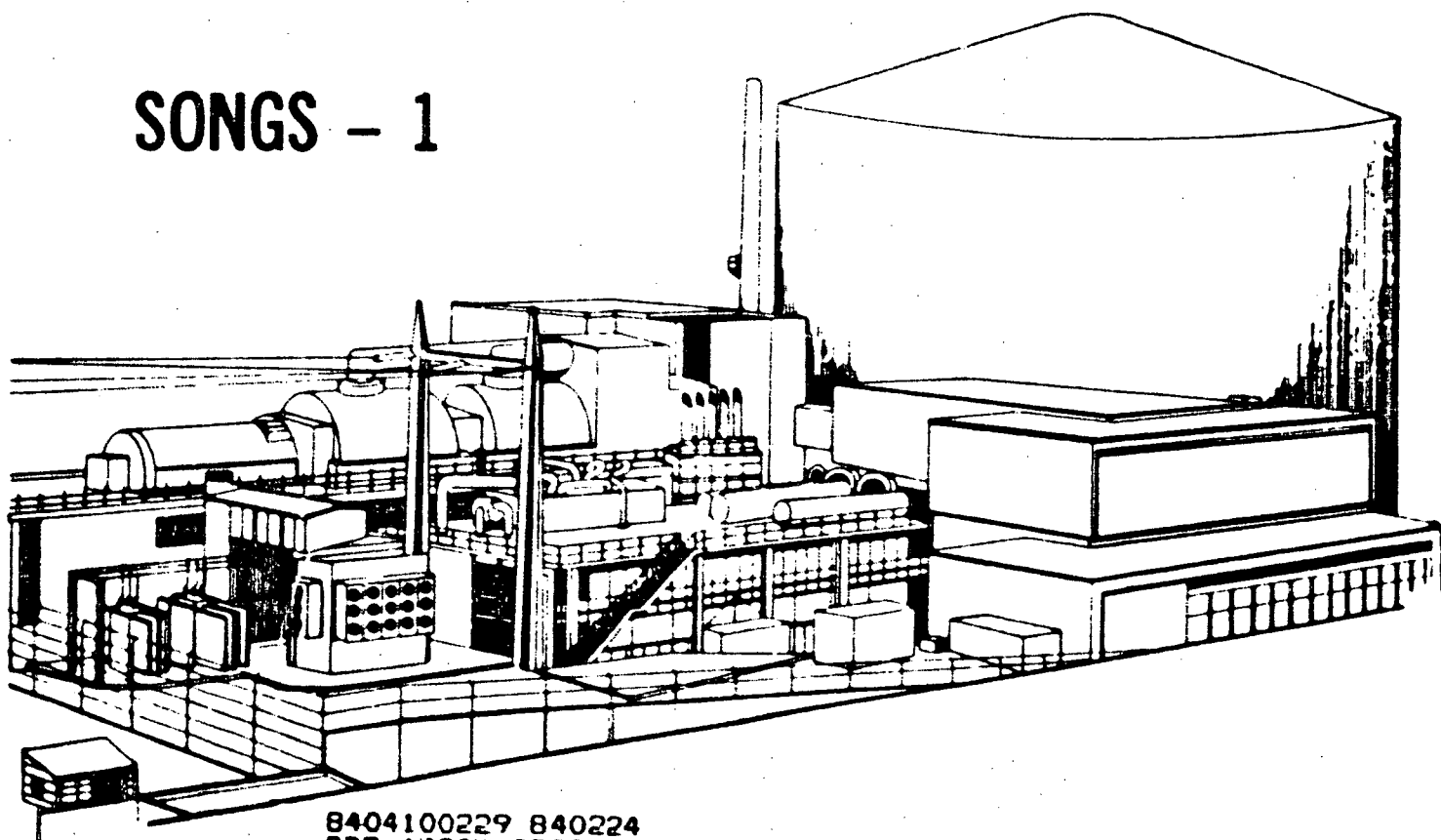


**SAN ONOFRE
NUCLEAR GENERATING STATION
UNIT 1
SEMIANNUAL EFFLUENT REPORT**

JULY — DECEMBER 1983

SONGS — 1



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SECTION B. GASEOUS EFFLUENTS

Table 1A, "Gaseous Effluents-Summation of All Releases," provides a detailed listing of gaseous effluents released quarterly in four categories: fission and activation gases, iodine-131, particulates with half-lives greater than eight days, and tritium. Listed are the total releases of each category, the average release rate for the quarter, and the percent of Technical Specification Limit (TSL).

Table 1B, "Gaseous Effluents-Elevated Release," has not been included in this report since San Onofre Nuclear Generating Station Unit 1 does not conduct elevated releases.

Table 1C, "Gaseous Effluents-Ground-Level Releases," provides the systematic listing by radionuclide for the quantity of radioactivity released in three categories: fission gases, iodines, and particulates. The total radioactivity for each radionuclide is listed for each quarterly period by both "continuous" and "batch" modes of release.

Waste gas decay tank and calibration releases are considered to be "batch" releases. Containment sphere purges and plant stack releases are considered to be "continuous" releases.

The percent of TSL was calculated according to SCE's proposed Technical Specification change because of ambiguity in the current Technical Specifications. The SCE method is fully described in Section E of this report. The percent of TSL is reported for the "maximum hourly release rate" condition rather than the "average over a year" condition, since the hourly condition of the TSL was the limiting condition by several orders of magnitude.

Table 1D, "Gaseous Effluents-Lower Limit of Detection," provides a listing of lower limit of detection concentrations for isotopes not detected in Table 1C.

The percent estimated total error is listed in Table 1A for each of the four gaseous effluent categories. The methodology used for error analysis is described in Section F of this report.

The January - June 1983 Semiannual Report values for composite Gross Alpha, Sr-89, Sr-90, (Tables 1A and 1B Gaseous Effluents) were incomplete due to data not available prior to reporting time. The values not reported were for the months of May and June 1983. The values are as follows:

	<u>Unit</u>	
Gross Alpha	Ci	2.58E-8
Sr-89	Ci	LLD
Sr-90	Ci	LLD

LLD = < 1.18E-16 μ Ci/cc

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	Third Quarter	Fourth Quarter	Estimated Total Error, %
A. Fission and activation gases				
1. Total release	Ci	LLD	LLD	2.20E+1
2. Average release rate for period	μCi/sec	0.00	0.00	
3. Percent of technical specification limit	%	0.00	0.00	
B. Iodines				
1. Total Iodine 131	Ci	2.46E-7*	5.25E-7*	1.90E+1
2. Average release rate for period	μCi/sec	3.09E-8	6.60E-8	
3. Percent of technical specification limit	%	4.96E-7	2.14E-7	
C. Particulates				
1. Particulates with half-lives > 8 days	Ci	2.31E-6	LLD	1.60E+1
2. Average release rate for period	μCi/sec	2.91E-7	0.00	
3. Percent of technical specification limit	%	1.06E-7	0.00	
4. Gross alpha radioactivity	Ci	LLD	**	5.00E+1
D. Tritium				
1. Total release	Ci	LLD	LLD	2.50E+1
2. Average release rate for period	μCi/sec	0.00	0.00	
3. Percent of technical specification limit	%	0.00	0.00	

LLD - Lower Limit of Detection; See Table 1D.

* - All radiiodine released from Unit 1 during the period of this report is due to processing of Unit 2/3 Radwaste at Unit 1.

** - Fourth quarter analyses not available at report time; analyses will be included in the following Semiannual Report.

TABLE 1C

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
GASEOUS EFFLUENTS - GROUND-LEVEL RELEASES

Nuclides Released	Unit	Continuous Mode		Batch Mode	
		Third Quarter	Fourth Quarter	Third Quarter	Fourth Quarter
1. Fission gases					
krypton-85	Ci	LLD	LLD	LLD	LLD
krypton-85m	Ci	LLD	LLD	LLD	LLD
krypton-87	Ci	LLD	LLD	LLD	LLD
krypton-88	Ci	LLD	LLD	LLD	LLD
xenon-133	Ci	LLD	LLD	LLD	LLD
xenon-135	Ci	LLD	LLD	LLD	LLD
xenon-135m	Ci	LLD	LLD	LLD	LLD
xenon-138	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	LLD	LLD	LLD	LLD
=====					
2. Iodines					
iodine-131	Ci	2.46E-7	5.25E-7	LLD	LLD
iodine-133	Ci	LLD	LLD	LLD	LLD
iodine-135	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	2.46E-7	5.25E-7	LLD	LLD
=====					
3. Particulates					
strontium-89	Ci	LLD	*	**	**
strontium-90	Ci	LLD	*	**	**
cesium-134	Ci	LLD	LLD	LLD	LLD
cesium-137	Ci	LLD	LLD	LLD	LLD
barium-lanthanum-140	Ci	LLD	LLD	LLD	LLD
cadmium 109	Ci	2.31E-6	LLD	LLD	LLD
=====					

LLD - Lower Limit of Detection; See Table 1D.

* Fourth quarter analysis not available at report time; analyses will be included in the following Semiannual Report.

** All gaseous releases made from SONGS-1 are vented through the Plant Stack; therefore, Sr-89, Sr-90 and gross alpha are analyzed by "continuous" mode only.

TABLE 10

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
GASEOUS EFFLUENTS - LOWER LIMIT OF DETECTION

ISOTOPES	BATCH MODE LLD ($\mu\text{Ci/cc}$)	CONTINUOUS MODE LLD ($\mu\text{Ci/cc}$)
krypton-85	*	< 6.68E-6
krypton-85m	*	< 2.89E-8
krypton-87	*	< 7.12E-8
krypton-88	*	< 6.63E-8
xenon-133	*	< 7.72E-8
xenon-135	*	< 2.43E-8
xenon-135m	*	< 2.15E-7
xenon-138	*	< 6.44E-7
iodine-131	NA	< 2.47E-14
iodine-133	NA	< 9.96E-14
iodine-135	NA	< 5.94E-13
strontium-89	**	< 1.25E-16
strontium-90	**	< 1.25E-16
cadmium-109	NA	< 1.74E-12
cesium-134	NA	< 1.18E-13
cesium-137	NA	< 1.61E-13
barium-140	NA	< 2.65E-13
lanthanum-140	NA	< 1.33E-13
Gross Alpha	**	< 2.50E-16
tritium	*	< 7.97E-8

* - For the report period, there were no releases made via batch mode; therefore no batch mode LLDs were reported.

** - All gaseous releases made from SONGS-1 are vented through the Plant Stack, therefore, Sr-89, Sr-90, and gross alpha are analyzed by "continuous" mode only.

NA - Iodines and particulates are not analyzed prior to release.

SECTION C. LIQUID EFFLUENTS

Table 2A, "Liquid Effluents-Summation of All Releases," provides a detailed listing of liquid effluent releases in three categories: fission and activation products, tritium, and dissolved and entrained gases. Listed are (1) the total release of each category, (2) the average diluted concentration at the point of discharge during each quarterly period, and (3) the percent of applicable Limit. Also listed are the gross alpha radioactivity, the volume of actual waste released (prior to dilution by the circulating water), and the volume of dilution water (the volume of circulating water) used to dilute the batch releases.

Table 2B, "Liquid Effluents," provides the systematic listing by radionuclide for the quantity of radioactivity released in each category. The total radioactivity of each radionuclide released is listed for each quarterly period by both "continuous" and "batch" modes of release.

Table 2C, "Liquid Effluents-Lower Limit of Detection," provides a listing of lower limit of detection concentrations for isotopes not detected in Table 2B.

The percent of Technical Specification Limit (TSL) was calculated according to SCE's proposed Technical Specification change because of the ambiguity in the current Technical Specifications. The methodology used in calculating TSL is presented in Section E of this report. The methodology used for error analysis is presented in Section F of this report.

In the January - June 1983 Semiannual Report, the values for composite Gross Alpha, Sr-89, and Sr-90, in Table 2A and Table 2B Liquid Effluents, were incomplete due to data not available at the time of the report. The values not reported were for the months May and June 1983. The values are as follows:

	<u>Unit</u>	
Gross Alpha	Ci	2.27E-5
Strontium-89	Ci	LLD
Strontium-90	Ci	3.11E-4

LLD = $< 1.00E-6$ $\mu\text{Ci/ml}$

TABLE 2A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	Third Quarter	Fourth Quarter	Estimated Total Error, %
A. Fission and activation products				
1. Total release	Ci	6.62E-3	1.55E-1	1.90E+1
2. Average diluted concentration during period	μCi/ml	1.17E-10	3.02E-9	
3. Percent of applicable limit	%	4.89E-1	8.47E-1	
=====				
B. Tritium				
1. Total release	Ci	2.83E-1	4.33E+0	1.90E+1
2. Average diluted concentration during period	μCi/ml	4.98E-9	8.44E-8	
3. Percent of applicable limit	%	1.08E-3	8.27E-2	
=====				
C. Dissolved and entrained gases				
1. Total release	Ci	LLD	LLD	1.90E+1
2. Average diluted concentration during period	μCi/ml	0.00	0.00	
3. Percent of applicable limit	%	0.00	0.00	
=====				
D. Gross alpha radioactivity	Ci	4.54E-5	*	5.00E+1
=====				
E. Volume of waste released (prior to dilution)	liters	4.07E+6	3.09E+6	5.00E+0
=====				
F. Volume of dilution water used during period	liters	5.68E+10	5.13E+10	5.00E+0

LLD - Lower Limit of Detection; see Table 2C.

* - Fourth quarter analyses not available at report time; analyses will be included in the following Semiannual Report.

TABLE 2B

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
LIQUID EFFLUENTS

Nuclides Released	Unit	Continuous Mode		Batch Mode	
		Third Quarter	Fourth Quarter	Third Quarter	Fourth Quarter
strontium-89	Ci	LLD	*	LLD	*
strontium-90	Ci	LLD	*	LLD	*
cesium-134	Ci	LLD	LLD	1.26E-3	2.04E-2
cesium-137	Ci	2.55E-6	2.32E-6	3.73E-3	8.66E-2
cobalt-57	Ci	LLD	3.87E-7	LLD	LLD
cobalt-58	Ci	LLD	LLD	LLD	6.83E-5
cobalt-60	Ci	LLD	LLD	1.57E-3	4.60E-2
iron-59	Ci	LLD	LLD	LLD	LLD
zinc-65	Ci	LLD	LLD	LLD	LLD
manganese-54	Ci	LLD	LLD	4.96E-5	1.97E-3
chromium-51	Ci	LLD	LLD	LLD	LLD
zirconium-niobium-95	Ci	LLD	LLD	LLD	LLD
molybdenum-99	Ci	LLD	LLD	LLD	LLD
technetium-99m	Ci	LLD	LLD	LLD	LLD
cadmium-109	Ci	LLD	LLD	7.29E-6	LLD
barium-lanthanum-140	Ci	LLD	LLD	LLD	LLD
cerium-141	Ci	LLD	LLD	LLD	LLD
iodine-131	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	2.55E-6	2.71E-6	6.62E-3	1.55E-1
=====					
xenon-133	Ci	LLD	LLD	LLD	LLD
xenon-135	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	LLD	LLD	LLD	LLD
=====					

LLD - Lower Limit of Detection; see Table 2C.

- * - Fourth quarter analyses not available at report time; analyses will be included in the following Semiannual Report.

TABLE 2C

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
LIQUID EFFLUENTS - LOWER LIMIT OF DETECTION

ISOTOPES	BATCH MODE LLD ($\mu\text{Ci/ml}$)	CONTINUOUS MODE LLD ($\mu\text{Ci/ml}$)
strontium-89	< 5.00E-7	< 4.00E-8
strontium-90	< 2.00E-8	< 2.00E-8
cesium-134	*	< 6.49E-8
cobalt-57	< 1.48E-6	< 3.64E-8
cobalt-58	< 2.94E-8	< 3.56E-8
cobalt-60	*	< 7.25E-8
iron-59	< 3.84E-6	< 7.16E-8
zinc-65	< 6.99E-6	< 8.01E-8
manganese-54	*	< 3.65E-8
chromium-51	< 2.04E-5	< 4.44E-7
zirconium-niobium-95	< 4.38E-6	< 6.07E-8
molybdenum-99	< 3.10E-5	< 2.57E-8
technetium-99m	< 2.47E-4	< 3.86E-8
cadmium-109	< 2.75E-5	< 9.26E-7
barium-lanthanum-140	< 1.06E-5	< 1.30E-7
cerium-141	< 2.66E-6	< 7.77E-8
iodine-131	< 2.99E-6	< 5.56E-8
xenon-133	< 6.20E-6	< 1.72E-7
xenon-135	< 6.11E-5	< 4.50E-8

* - Nuclides were detected in Table 2B.

SECTION D. RADWASTE SHIPMENTS

TABLE 3

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983) SOLID WASTE AND IRRADIATED FUEL SHIPMENT

A. Solid Waste Shipped Offsite for Burial or Disposal (Not Irradiated fuel)

1. Type of Waste	Unit	6-Month Period	Est. Total Error, %
a. Spent Resins	m ³ Ci	0.00E+0 0.00E+0	3.00E+1
b. Dry Compressible Waste, Contaminated Equip. Etc.	m ³ Ci	6.99E+1 6.22E-1	3.00E+1
c. Irradiated Components, Control Rods, Etc.	m ³ Ci	0.00E+0 0.00E+0	3.00E+1
d. Absorbed Liquids, Sand, Building Rubble, Biological Waste	m ³ Ci	6.86E+1 1.34E-1	3.00E+1

2. Estimate of Major Nuclide Composition (by type of waste)

a.

Not Applicable	%	0.00E+0
----------------	---	---------

b.

Mn-54	%	5.72E-2
Co-60	%	3.22E+1
Ni-63	%	4.23E-1
Sr-90/Y-90	%	2.52E-1
Ru-106	%	2.57E-2
Cs-134	%	3.49E+0
Cs-137	%	6.33E+1
Ce-144	%	6.66E-2
Pu-241	%	1.93E-1

c.

Not Applicable	%	0.00E+0
----------------	---	---------

d.

Mn-54	%	1.07E-1
Co-60	%	5.98E+1
Cs-134	%	2.98E+0
Cs-137	%	3.73E+1

SECTION D. RADWASTE SHIPMENTS (Continued)

TABLE 3

**EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1983)
SOLID WASTE AND IRRADIATED FUEL SHIPMENT**

**A. Solid Waste Shipped Offsite for Burial or Disposal (Not irradiated fuel)
(Continued)**

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
5	South West Nuclear Truck	Richland, WA

B. Irradiated Fuel Shipments (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
None	N/A	N/A

SECTION E. TECHNICAL SPECIFICATION LIMITS

The existing Technical Specifications 4.5.A and 4.6.A for SONGS 1 have led to several discussions between SCE, NRR, and Region V. The results of these discussions have led to agreement that the intent of these Technical Specifications is to require compliance with 10 CFR 20, Appendix B. This intent limits concentrations in unrestricted areas such that the following condition is met on both gaseous and liquid effluents:

$$\sum_i C_i / MPC_i \leq 1 \text{ for concentrations}$$

averaged over a year; and $\sum_i C_i / MPC_i \leq 10$ for concentrations averaged over an hour. SCE has developed revised Technical Specification 4.5.A and 4.6.A. This Semiannual Report has calculations of the percent of the Technical Specification Limit according to the following proposed Technical Specifications 4.5.A and 4.6.A.

Proposed Technical Specification 4.5.A (Liquid Effluents)

Averaged over a year, radioactivity released shall not result in concentrations at the point of discharge such that the following condition is exceeded.

$$\sum_i C_i / MPC_i \leq 1$$

Where: C_i = Concentration of radionuclide i in the circulating water discharge at the point of release to unrestricted areas; in $\mu\text{Ci}/\text{ml}$.

MPC_i = Maximum Permissible Concentration of radionuclide i , as defined in 10 CFR 20, Appendix B, Table II, Column 2; in $\mu\text{Ci}/\text{ml}$.

SECTION E. TECHNICAL SPECIFICATION LIMITS (Continued)

The percent of Technical Specification Limit averaged over a year shall be determined by calculation of the following parameter:

$$(1E+6/V_T) \sum_i (A_i/MPC_i) \times 100\%$$

- Where:
- A_i = Activity of radionuclide i released over a year; in Ci.
 - V_T = Total volume of liquid effluent released to the unrestricted area during the year; in ml.
 - V_T = $V_{DW} + V_{LW}$
 - V_{DW} = Total volume of dilution water used to dilute liquid waste during the year; in ml.
 - V_{LW} = Total volume of liquid waste released prior to dilution; in ml.
 - MPC_i = As defined above.

The licensee shall be provided the flexibility of averaging over the semiannual period of interest rather than averaging over a year if the licensee so desires.

Averaged over an hour, radioactivity released shall not result in concentrations in circulating water discharge such that the following condition is exceeded:

$$\sum_i C_i/MPC_i \leq 10$$

- Where:
- 10 = Maximum value of the summation of the ratios of C_i/MPC_i averaged over hourly time periods; dimensionless.
 - C_i = As defined above
 - MPC_i = As defined above

SECTION E. TECHNICAL SPECIFICATION LIMITS (Continued)

The percent of Technical Specification Limit averaged over an hour shall be determined by calculation of the following parameter for the hourly period when maximum releases and/or concentrations occurred:

$$(1E+6/10V_{T,h}) \sum_i (A_{i,h}/MPC_i) \times 100\%$$

- Where:
- 10 = As defined above
 - h = Subscript used to indicate the hourly period when maximum releases occurred; in Ci.
 - $A_{i,h}$ = Activity of radionuclide i released during the hour when maximum releases occurred; in Ci.
 - $V_{T,h}$ = Total volume of liquid waste released to the unrestricted area during the hour when maximum releases occurred; in ml.
 - MPC_i = As defined above.

For purposes of reporting the percent of Technical Specification Limit in the Semiannual Effluent Report, the licensee will report the higher percent of the limit as determined from averaging either over the year or over the maximum hour.

Proposed Technical Specification 4.6.A (Gaseous Effluents)

Averaged over a year, radioactivity released shall not result in concentrations of radioactivity in unrestricted areas such that the following condition is exceeded:

$$\sum_i C_i/MPC_i \leq 1$$

- Where:
- C_i = Concentration of radionuclide i at the unrestricted area.
 - MPC_i = Maximum permissible concentrations of radionuclide i as defined in 10 CFR 20, Appendix B, Table II, Column 1, in $\mu\text{Ci/cc}$.

SECTION E. TECHNICAL SPECIFICATION LIMITS (Continued)

The percent of Technical Specification Limit averaged over a year shall be determined by calculation of the following parameter:

$$(5.56E-6) \sum_i (Q_i / MPC_i) \times 100\%$$

Where: $5.56E-6$ = Atmospheric dispersion factor, in sec/m^3
 Q_i = Release rate of radionuclide i averaged over a year; in Ci/sec .
 MPC_i = As defined above.

The licensee shall be provided the flexibility of averaging over the semiannual period of interest rather than averaging over a year if the licensee desires.

Averaged over the hour when maximum releases occur, radioactivity released shall not result in concentrations in unrestricted areas exceeding ten times the yearly averaged limit stated above. The percent of Technical Specification Limit shall be determined by calculation of the following parameter for the hourly period when maximum releases occurred:

$$(5.56E-7) \sum_i (Q_{i,h} / MPC_i) \times 100\%$$

Where: $5.56E-7$ = Atmospheric dispersion factor divided by 10, in sec/m^3
 h = Subscript used to indicate the hourly period when maximum releases occurred.
 $Q_{i,h}$ = Release rate of radionuclide i averaged over the hour during which the highest releases occurred.
 MPC_i = As defined above.

For purposes of reporting the percent of Technical Specification Limit in the Semiannual Effluent Report, the licensee will report the higher percent of the limit as determined from averaging either over the year or over the maximum hour.

SECTION F. ESTIMATION OF ERROR

Estimation of the error in reported values of gaseous and liquid effluents releases have been made. Sources of error considered for gaseous effluents - batch releases are: (1) tank volumes, (2) sampling errors, (3) counting errors, and (4) calibration errors. Sources of error for gaseous effluents - continuous releases are: (1) fan flow rate, (2) sampling, (3) counting, (4) calibration and (5) differential pressure drop.

Sources of error for liquid effluents - batch releases are: (1) tank volumes, (2) sampling, (3) counting and (4) calibration. Sources of error for liquid effluents - continuous releases are: (1) dilution water flow rate, (2) sampling, (3) counting and (4) calibration.

These sources of error are independent, and thus, the total error is calculated according to the following formula:

$$\text{Total Error} = \sqrt{\sigma_1^2 + \sigma_2^2 + \sigma_3^2 \dots + \sigma_i^2}$$

Where: σ_i = Error associated with each component.

SECTION G. METEOROLOGY

The meteorology of the SONGS-1 site for the quarterly periods July - September and October - December, 1983, is described in this section. Meteorological measurements have been made according to the guidance set forth in USNRC Regulatory Guide 1.23, "Onsite Meteorological Programs." A summary report of the meteorological measurements taken during each calendar quarter are presented in Table 4A as joint frequency distributions (JFD) of wind direction and wind speed by atmospheric stability class.

Hourly meteorological data for batch releases have been recorded for the periods of actual release. This data is available, as well as the hourly data for all periods of the semiannual report, but has not been included in this report because of the bulk of recorded data.

Table 4A lists the joint frequency distributions for the third and fourth quarters of 1983. Each page of Table 4A represents the data for the Stability Classes: A, B, C, D, E, F, G; the last page of each table is the JFD with the combined stability classes. Each page is also divided into two parts; the upper part lists the number of hourly periods when each meteorology condition occurred and the lower part lists the frequency of each classification by percent. The wind speeds have been measured at the 10 meter level and the stability classes are defined by the temperature differential between the 10 and 40 meter levels.

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 3TH QUARTER, 1983
 DAMES AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 07/01/83 TO 09/30/83
 STABILITY CLASS BAA (10-40 METERS)
 WINDS AT 10 METER LEVEL

1-FEB-84

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	1	0	2	1	1	5	10.00
SSE	0	0	0	0	1	0	0	1	3	2	1	3	11	9.76
S	0	0	0	0	4	6	6	7	4	6	3	5	41	8.08
SSW	0	0	0	1	7	19	17	12	12	9	2	0	78	6.87
SW	0	0	0	7	18	24	17	17	9	1	0	0	96	6.07
WSW	0	0	0	7	14	23	46	29	7	2	0	0	130	6.39
W	0	0	0	1	6	32	67	57	43	19	3	2	250	7.14
WNW	0	0	0	1	5	8	25	33	21	17	10	14	134	8.24
NW	0	0	0	0	0	0	0	1	0	1	0	1	3	9.30
NNW	0	0	0	0	1	0	0	0	0	0	0	0	1	9.00
N	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	0	0	17	34	124	185	138	93	35	20	26	746	7.16

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.09	0.05	0.05	0.23	10.00
SSE	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.14	0.09	0.05	0.14	0.50	9.76
S	0.00	0.00	0.00	0.00	0.18	0.27	0.27	0.32	0.18	0.27	0.14	0.23	1.86	8.08
SSW	0.00	0.00	0.00	0.05	0.32	0.86	0.77	0.34	0.34	0.23	0.09	0.00	3.40	6.87
SW	0.00	0.00	0.00	0.32	0.82	1.09	1.09	0.77	0.23	0.05	0.00	0.00	4.35	6.07
WSW	0.00	0.00	0.00	0.32	0.63	1.13	2.09	1.32	0.32	0.09	0.00	0.00	9.90	6.39
W	0.00	0.00	0.00	0.05	0.27	2.36	3.04	2.99	1.95	0.86	0.14	0.09	11.34	7.14
WNW	0.00	0.00	0.00	0.05	0.23	0.36	1.13	1.30	0.95	0.77	0.43	0.63	6.08	8.24
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.05	0.14	9.30
NNW	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.05	9.00
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.00	0.00	0.77	2.34	6.08	8.39	7.17	4.31	2.49	0.91	1.18	33.83	7.16

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2209

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 3TH QUARTER, 1983
 DAVES AND MOORE JOB NO. - 00377-082-09
 DATA PERIOD- 07/01/83 TO 09/30/83
 STABILITY CLASS 680 (10-40 METERS)
 WINDS AT 10 METER LEVEL

1-FEB-84

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0	0	0	0	0	0	0	1	0	0	0	0	1	7.90
NE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0	0	0	0	4	4	12.93
S	0	0	0	0	0	0	0	1	1	0	0	0	2	7.93
SSW	0	0	0	0	1	1	0	2	1	1	0	0	6	7.10
SW	0	0	1	0	1	0	0	0	0	0	0	0	2	3.70
WSW	0	0	1	1	3	0	0	0	0	0	0	0	5	4.00
W	0	0	0	2	1	0	0	0	0	0	0	0	3	4.10
WNW	0	0	0	1	0	1	1	0	0	0	0	2	3	7.94
NW	0	0	0	0	1	0	1	1	0	0	0	1	4	7.68
NNW	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
N	0	0	0	0	1	0	0	0	0	0	0	0	1	4.60
VARIABLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
TOTAL	0	0	2	4	8	2	2	9	2	1	0	7	33	7.03

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.03	7.90
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	12.93
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.09	7.93
SSW	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.03	0.03	0.03	0.00	0.00	0.27	7.10
SW	0.00	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.70
WSW	0.00	0.00	0.03	0.03	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	4.00
W	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	4.10
WNW	0.00	0.00	0.00	0.03	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.09	0.23	7.94
NW	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.03	0.00	0.00	0.00	0.03	0.18	7.68
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	4.60
VARIABLE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	0.00	0.00	0.03	0.18	0.36	0.09	0.09	0.23	0.09	0.03	0.00	0.32	1.50	7.03

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2203

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 3TH QUARTER, 1983
 DAMES AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 07/01/83 TO 09/30/83
 STABILITY CLASS 8C8 (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0	0	0	0	1	0	0	0	0	0	0	0	1	4.10
NE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ENE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	0	0	0	0	1	0	1	2	10.75
SSE	0	0	0	0	1	1	2	1	1	0	0	3	9	9.13
S	0	0	0	0	2	1	2	0	1	0	0	2	8	8.43
SSW	0	0	0	2	3	1	3	0	1	1	0	0	13	5.64
SW	0	0	1	4	0	0	1	0	0	1	1	0	8	5.30
WSW	0	0	0	3	3	0	0	0	0	0	0	0	6	3.87
W	0	0	1	1	1	0	0	0	0	0	0	0	3	3.53
WNW	0	0	0	2	0	0	3	0	1	0	0	0	6	6.06
NW	0	0	0	0	0	0	1	0	2	0	1	1	5	9.06
NNW	0	0	0	0	1	0	0	0	0	0	0	0	1	4.30
N	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	0	2	12	14	3	14	1	6	3	2	7	64	6.64

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0.00	0.00	0.00	0.70	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	4.10
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.09	0.09	10.75
SSE	0.00	0.00	0.00	0.00	0.09	0.09	0.09	0.09	0.09	0.00	0.00	0.14	0.41	9.13
S	0.00	0.00	0.00	0.00	0.09	0.09	0.09	0.00	0.09	0.00	0.00	0.09	0.36	8.43
SSW	0.00	0.00	0.00	0.09	0.23	0.09	0.14	0.00	0.09	0.09	0.00	0.00	0.39	5.64
SW	0.00	0.00	0.09	0.18	0.00	0.00	0.09	0.00	0.00	0.09	0.09	0.00	0.36	5.30
WSW	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	3.87
W	0.00	0.00	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	3.53
WNW	0.00	0.00	0.00	0.09	0.00	0.00	0.23	0.00	0.09	0.00	0.00	0.00	0.36	6.06
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.09	0.09	0.23	9.06
NNW	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	4.30
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.00	0.09	0.34	0.63	0.14	0.63	0.09	0.27	0.14	0.09	0.32	2.90	6.64

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2200

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2205

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 3TH QUARTER, 1983
 DAMES AND MOORE JOB NO. - 00377-082-09
 DATA PERIOD- 07/31/83 TO 09/30/83
 STABILITY CLASS SDD (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0	1	5	5	7	18	10	2	3	1	0	0	52	3.39
NE	0	0	1	5	8	9	0	0	0	0	0	0	23	4.55
ENE	0	0	1	0	3	2	0	0	0	0	0	0	6	4.55
E	0	0	0	3	5	5	2	3	0	0	0	0	18	3.39
ESE	0	0	1	3	1	8	2	0	0	1	0	0	16	5.48
SE	0	0	1	2	14	12	11	11	9	4	4	4	72	6.99
SSE	0	0	3	18	24	23	17	16	10	6	6	15	138	6.86
S	0	0	7	17	11	10	3	5	3	1	3	6	66	6.20
SSW	0	0	8	12	10	4	0	1	0	1	0	3	39	4.80
SW	0	0	8	7	7	1	0	0	0	0	0	0	23	3.52
WSW	0	0	5	12	4	0	0	0	0	0	0	0	21	3.42
W	0	1	8	7	5	3	1	0	0	0	0	0	25	3.68
WNW	0	0	5	9	7	8	3	1	2	3	1	0	39	5.27
NW	0	2	6	10	11	12	8	5	3	1	2	4	64	5.78
NNW	0	1	2	6	3	3	3	1	0	0	0	0	19	4.47
N	0	0	6	8	9	2	1	0	0	0	0	0	26	3.95
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	9	67	124	129	120	61	45	30	18	16	32	647	5.65

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0.00	0.09	0.23	0.23	0.38	0.62	0.45	0.09	0.14	0.05	0.00	0.00	2.36	3.39
NE	0.00	0.00	0.05	0.23	0.36	0.41	0.00	0.00	0.00	0.00	0.00	0.00	1.04	4.55
ENE	0.00	0.00	0.05	0.00	0.14	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.27	4.55
E	0.00	0.00	0.00	0.14	0.23	0.23	0.09	0.14	0.00	0.00	0.00	0.00	0.82	3.39
ESE	0.00	0.00	0.05	0.14	0.09	0.36	0.09	0.00	0.00	0.05	0.00	0.00	0.73	5.48
SE	0.00	0.00	0.05	0.09	0.63	0.54	0.50	0.50	0.41	0.18	0.18	0.18	3.27	6.99
SSE	0.00	0.00	0.14	0.62	1.09	1.04	0.77	0.73	0.45	0.27	0.27	0.68	6.26	6.86
S	0.00	0.00	0.32	0.77	0.50	0.45	0.14	0.23	0.14	0.05	0.14	0.27	2.99	6.20
SSW	0.00	0.00	0.36	0.54	0.45	0.18	0.00	0.05	0.00	0.05	0.00	0.14	1.77	4.80
SW	0.00	0.00	0.36	0.32	0.32	0.09	0.00	0.00	0.00	0.00	0.00	0.00	1.04	3.52
WSW	0.00	0.00	0.23	0.54	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	3.42
W	0.00	0.09	0.36	0.32	0.23	0.14	0.05	0.00	0.00	0.00	0.00	0.00	1.13	3.68
WNW	0.00	0.00	0.23	0.41	0.32	0.36	0.14	0.09	0.09	0.14	0.05	0.00	1.77	5.27
NW	0.00	0.09	0.27	0.45	0.50	0.54	0.36	0.23	0.14	0.05	0.09	0.18	2.90	5.78
NNW	0.00	0.05	0.09	0.27	0.14	0.14	0.14	0.05	0.00	0.00	0.00	0.00	0.86	4.47
N	0.00	0.00	0.27	0.36	0.41	0.09	0.05	0.00	0.00	0.00	0.00	0.00	1.18	3.95
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.23	3.04	5.62	5.85	5.44	2.77	2.04	1.36	0.82	0.73	1.45	29.34	5.65

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 3208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 3205

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 3TH QUARTER, 1983
 DAMES AND MOORE JOB NO. - 00377-082-09
 DATA PERIOD- 07/01/83 TO 09/30/83
 STABILITY CLASS REG (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0	1	20	23	23	12	16	1	2	0	0	0	102	4.43
NE	0	1	3	9	2	0	0	0	0	0	0	0	11	3.13
ENE	0	2	5	8	3	2	0	0	0	0	0	0	20	3.47
E	0	2	4	7	1	3	2	1	0	0	0	0	20	4.07
ESE	0	0	6	3	2	0	0	1	1	0	0	1	14	4.67
SE	0	1	10	17	8	9	10	4	3	4	1	4	73	5.83
SSE	0	1	7	13	10	4	7	7	2	3	0	1	59	5.27
S	0	1	7	9	9	1	1	0	0	1	0	1	22	4.30
SSW	0	2	1	1	0	0	0	0	0	0	0	0	4	2.33
SW	0	1	3	2	1	0	1	0	0	0	0	0	8	3.36
WSW	0	0	4	1	1	0	0	0	0	0	0	0	6	3.00
W	0	0	6	1	2	1	0	0	0	0	0	0	10	3.30
WNW	0	0	1	2	4	3	2	2	0	1	0	0	16	5.37
NW	0	0	2	3	1	2	1	2	0	2	2	0	19	6.26
NNW	0	0	2	3	0	1	1	0	0	0	0	0	7	4.03
N	0	1	4	9	5	2	3	0	1	0	1	0	27	4.31
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	13	85	103	70	41	43	20	11	11	4	7	412	4.74

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.03	0.91	1.13	1.13	0.34	0.73	0.03	0.09	0.00	0.00	0.00	4.63	4.43
NE	0.00	0.03	0.14	0.23	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	3.13
ENE	0.00	0.09	0.23	0.36	0.14	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.91	3.47
E	0.00	0.09	0.18	0.32	0.03	0.14	0.09	0.03	0.00	0.00	0.00	0.00	0.91	4.07
ESE	0.00	0.00	0.27	0.14	0.09	0.00	0.00	0.03	0.03	0.00	0.00	0.03	0.63	4.67
SE	0.00	0.03	0.43	0.77	0.36	0.41	0.43	0.27	0.23	0.18	0.03	0.18	3.40	5.83
SSE	0.00	0.03	0.32	0.39	0.43	0.18	0.32	0.32	0.09	0.14	0.00	0.03	2.49	5.27
S	0.00	0.03	0.32	0.23	0.23	0.03	0.03	0.00	0.00	0.03	0.00	0.03	1.00	4.30
SSW	0.00	0.09	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	2.33
SW	0.00	0.03	0.14	0.09	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.36	3.36
WSW	0.00	0.00	0.11	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	3.00
W	0.00	0.00	0.27	0.03	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.43	3.30
WNW	0.00	0.00	0.03	0.09	0.18	0.14	0.14	0.09	0.00	0.03	0.00	0.00	0.73	5.37
NW	0.00	0.00	0.09	0.14	0.03	0.09	0.03	0.09	0.00	0.09	0.09	0.00	0.68	6.26
NNW	0.00	0.00	0.09	0.14	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.32	4.03
N	0.00	0.03	0.18	0.41	0.23	0.14	0.14	0.00	0.03	0.00	0.03	0.00	1.27	4.31
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.39	3.85	4.76	3.17	1.86	2.04	0.91	0.30	0.30	0.18	0.32	18.68	4.74

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2203

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 3TH QUARTER, 1983
 DAMES AND MOORE JOB NO. - 00377-082-09
 DATA PERIOD- 07/01/83 TO 09/30/83
 STABILITY CLASS BFO (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0	0	4	17	31	38	16	9	1	0	0	0	112	9.14
NE	0	0	4	8	0	2	0	0	0	0	0	0	16	3.98
ENE	0	0	3	2	1	0	0	0	0	0	0	0	6	3.10
E	0	0	3	0	0	0	0	0	0	0	0	0	3	2.90
ESE	0	1	0	0	1	0	0	0	0	0	0	0	2	3.60
SE	0	0	2	1	1	1	0	2	0	0	0	0	7	4.79
SSE	0	0	2	2	0	1	1	0	0	0	0	1	7	9.16
S	0	0	2	2	1	0	0	0	0	0	0	0	9	3.32
SSW	0	0	1	1	0	0	0	0	0	0	0	0	2	3.10
SW	0	0	0	1	0	0	0	0	0	0	0	0	1	3.80
WSW	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
W	0	0	0	0	2	1	0	0	0	0	0	0	3	4.90
WNW	0	0	0	0	1	2	0	0	1	1	0	0	5	6.84
NW	0	0	0	0	0	1	0	0	1	1	0	0	3	7.80
NNW	0	0	0	0	0	1	1	0	1	1	0	0	4	7.63
N	0	0	2	2	2	3	0	1	0	0	0	0	10	4.69
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	1	25	26	40	50	18	8	4	3	0	1	186	4.91

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0.00	0.00	0.18	0.77	1.41	1.72	0.73	0.23	0.05	0.00	0.00	0.00	9.08	9.14
NE	0.00	0.00	0.27	0.36	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.73	3.98
ENE	0.00	0.00	0.14	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	3.10
E	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	2.90
ESE	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.60
SE	0.00	0.00	0.09	0.05	0.05	0.05	0.00	0.09	0.00	0.00	0.00	0.00	0.32	4.79
SSE	0.00	0.00	0.09	0.09	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.05	0.32	9.16
S	0.00	0.00	0.09	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	3.32
SSW	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.10
SW	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3.80
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.14	4.90
WNW	0.00	0.00	0.00	0.00	0.05	0.09	0.00	0.00	0.05	0.05	0.00	0.00	0.25	6.84
NW	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.05	0.00	0.00	0.14	7.80
NNW	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.05	0.05	0.00	0.00	0.18	7.63
N	0.00	0.00	0.09	0.09	0.09	0.14	0.00	0.05	0.00	0.00	0.00	0.00	0.43	4.69
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.05	1.13	1.63	1.81	2.27	0.82	0.36	0.18	0.14	0.00	0.05	8.44	4.91

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2203

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 3TH QUARTER, 1983
 DAMES AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 07/01/83 TO 09/30/83
 STABILITY CLASS 000 (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION (FREQUENCY IN NUMBER OF OCCURRENCES)													
WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL
	1	2	3	4	5	6	7	8	9	10	11	>11	
NNE	0	0	0	2	6	9	22	29	20	9	3	2	98
NE	0	0	0	0	1	1	0	0	0	0	0	0	2
ENE	0	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	1	1	0	0	0	0	0	0	0	2
ESE	0	0	1	0	0	0	1	0	0	0	0	0	2
SE	0	0	0	0	0	0	0	0	0	0	0	0	0
SSE	0	0	0	1	0	0	0	0	0	0	0	0	1
S	0	0	0	0	0	0	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	1	0	0	0	0	0	0	0	1
WNW	0	0	0	0	0	1	0	0	0	0	0	0	1
WW	0	0	0	0	0	0	0	1	0	1	0	0	2
WNW	0	0	0	0	1	0	1	0	0	0	0	0	2
N	0	0	0	0	0	2	1	2	1	0	0	0	6
VARIABLE	0	0	0	0	0	0	0	0	0	0	0	0	0
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	1	4	10	13	29	28	21	10	3	2	117

WIND FREQUENCY DISTRIBUTION (FREQUENCY IN PERCENT OF TOTAL)													
WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL
	1	2	3	4	5	6	7	8	9	10	11	>11	
NNE	0.00	0.00	0.00	0.09	0.27	0.41	1.00	1.13	0.91	0.41	0.14	0.09	4.44
NE	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.09
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
ESE	0.00	0.00	0.05	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.09
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
WNW	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05
WW	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.05	0.00	0.00	0.09
WNW	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.09
N	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.00	0.00	0.00	0.27
VARIABLE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	0.00	0.00	0.05	0.18	0.45	0.59	1.13	1.27	0.95	0.45	0.14	0.09	9.31

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2208

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 3TH QUARTER, 1983
 DAMES AND MOORE JOB NO - 00077-082-09
 DATA PERIOD- 07/01/83 TO 09/30/83
 STABILITY CLASS ALL (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

		UPPER CLASS INTERVALS OF WIND SPEED (MPH)											TOTAL	MEAN SPEED
WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0	2	29	49	70	77	64	34	26	10	3	2	364	5.61
NE	0	1	10	18	11	12	0	0	0	0	0	0	32	3.97
ENE	0	2	9	10	7	4	0	0	0	0	0	0	32	3.61
E	0	2	7	11	7	8	4	4	0	0	0	0	43	4.53
ESE	0	1	8	6	4	8	3	1	1	1	0	1	34	4.97
SE	0	1	13	20	23	22	21	20	14	11	6	10	161	6.49
SSE	0	1	12	34	36	29	27	29	16	11	7	27	229	6.79
S	0	1	16	24	23	18	12	13	9	8	6	14	144	6.53
SSW	0	2	10	17	23	29	20	19	14	8	2	3	139	6.00
SW	0	1	13	21	27	29	26	17	9	2	1	0	138	5.40
WSW	0	0	10	24	29	29	46	29	7	2	0	0	168	5.73
W	0	1	19	12	12	97	68	57	43	19	3	2	295	6.62
WNW	0	0	6	19	17	23	37	36	29	22	11	16	208	7.34
NW	0	2	8	13	13	13	11	10	6	6	3	7	96	6.34
NNW	0	1	4	9	6	9	6	1	1	1	0	0	34	4.89
N	0	1	12	19	17	10	9	3	2	0	1	0	70	4.36
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	19	162	302	327	363	390	269	169	101	49	62	2205	6.06

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0 00	0 09	1 32	2 22	3 17	3 49	2 90	1 54	1 18	0 45	0 14	0 09	16 60	5 61
NE	0 00	0 05	0 45	0 82	0 80	0 34	0 00	0 00	0 00	0 00	0 00	0 00	2 36	3 97
ENE	0 00	0 09	0 41	0 45	0 32	0 18	0 00	0 00	0 00	0 00	0 00	0 00	1 49	3 61
E	0 00	0 09	0 32	0 30	0 32	0 36	0 18	0 18	0 00	0 00	0 00	0 00	1 95	4 53
ESE	0 00	0 05	0 36	0 27	0 18	0 36	0 14	0 09	0 09	0 09	0 00	0 09	1 34	4 97
SE	0 00	0 05	0 59	0 91	1 04	1 00	0 95	0 91	0 63	0 30	0 27	0 43	7 30	6 49
SSE	0 00	0 05	0 54	1 54	1 63	1 32	1 22	1 13	0 73	0 30	0 32	1 22	10 20	6 79
S	0 00	0 05	0 73	1 09	1 04	0 82	0 34	0 39	0 41	0 36	0 27	0 63	6 53	6 53
SSW	0 00	0 09	0 45	0 77	1 04	1 13	0 91	0 68	0 63	0 36	0 09	0 14	6 30	6 00
SW	0 00	0 05	0 59	0 95	1 22	1 13	1 18	0 77	0 23	0 09	0 05	0 00	6 24	5 40
WSW	0 00	0 00	0 45	1 09	1 13	1 13	2 09	1 32	0 32	0 09	0 00	0 00	7 62	5 73
W	0 00	0 05	0 68	0 34	0 82	2 39	3 08	2 39	1 95	0 86	0 14	0 09	13 38	6 62
WNW	0 00	0 00	0 27	0 68	0 77	1 04	1 68	1 63	1 13	1 00	0 30	0 73	9 43	7 34
NW	0 00	0 09	0 36	0 39	0 39	0 68	0 50	0 45	0 27	0 27	0 32	0 32	4 35	6 34
NNW	0 00	0 05	0 18	0 41	0 27	0 23	0 27	0 09	0 09	0 09	0 00	0 00	1 34	4 89
N	0 00	0 05	0 34	0 86	0 77	0 45	0 23	0 14	0 09	0 00	0 05	0 00	3 17	4 36
VARIABLE													0 00	0 00
CALM													0 00	0 00
TOTAL	0 00	0 86	8 29	13 70	14 83	16 46	19 87	12 02	7 66	4 58	2 04	3 72	100 00	6 06

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2205

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 4TH QUARTER, 1983
 DAVES AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 10/01/83 TO 12/31/83
 STABILITY CLASS 840 (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
NE	0	0	0	0	0	0	0	0	0	0	0	1	1	11.40
ENE	0	0	0	0	0	0	0	0	0	0	0	1	1	13.10
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SE	0	0	0	0	0	1	0	3	1	2	0	2	9	8.67
SSE	0	0	0	0	2	3	3	4	2	4	4	3	29	8.38
S	0	0	3	3	6	8	16	7	3	2	2	1	51	6.45
SSW	0	0	6	13	8	4	7	2	1	0	0	1	42	4.77
SW	0	1	9	9	17	12	3	4	1	1	0	0	53	4.95
WSW	0	0	3	13	19	21	19	10	1	2	0	0	88	5.53
W	0	0	2	7	18	24	31	20	9	11	3	0	135	6.42
WNW	0	0	1	2	3	6	7	8	2	4	2	12	47	8.39
NW	0	0	0	0	1	0	0	1	0	0	0	0	2	6.00
NNW	0	0	0	0	1	0	0	0	0	0	0	0	1	4.10
N	0	0	0	0	0	0	1	0	0	0	0	0	1	6.40
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	1	20	47	75	89	87	59	20	26	11	21	456	6.30

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	11.40
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	13.10
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.14	0.03	0.09	0.00	0.09	0.41	8.67
SSE	0.00	0.00	0.00	0.00	0.09	0.14	0.14	0.18	0.09	0.18	0.18	0.14	1.15	8.38
S	0.00	0.00	0.14	0.14	0.28	0.37	0.73	0.32	0.14	0.09	0.09	0.03	2.34	6.45
SSW	0.00	0.00	0.28	0.40	0.37	0.18	0.32	0.09	0.03	0.00	0.00	0.03	1.93	4.77
SW	0.00	0.03	0.23	0.41	0.78	0.33	0.14	0.18	0.03	0.03	0.00	0.00	2.43	4.95
WSW	0.00	0.00	0.14	0.40	0.87	0.96	0.87	0.46	0.03	0.09	0.00	0.00	4.04	5.53
W	0.00	0.00	0.09	0.32	0.83	1.36	1.42	0.92	0.41	0.51	0.14	0.00	6.20	6.42
WNW	0.00	0.00	0.03	0.09	0.14	0.28	0.32	0.37	0.09	0.18	0.09	0.33	2.16	8.39
NW	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.09	6.00
NNW	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	4.10
N	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.03	6.40
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.03	0.92	2.16	3.45	4.09	4.00	2.71	0.92	1.19	0.31	0.96	20.95	6.30

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2177

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 4TH QUARTER, 1983
 DAMES AND MOORE JOB NO. - 00377-082-09
 DATA PERIOD- 10/01/83 TO 12/31/83
 STABILITY CLASS 888 (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)											TOTAL	MEAN SPEED	
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0.	0.	7.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00	
NE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00	
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	9.10	
E	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00	
ESE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00	
SE	0.	0.	0.	0.	0.	0.	1.	3.	2.	1.	0.	1.	8.32	
SSE	0.	0.	0.	0.	1.	0.	2.	1.	1.	0.	0.	3.	9.32	
S	0.	0.	0.	3.	1.	0.	1.	0.	0.	0.	0.	0.	4.16	
SSW	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	8.20	
SW	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.30	
WSW	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	8.30	
W	0.	0.	1.	1.	3.	0.	0.	0.	0.	0.	0.	0.	4.07	
WNW	0.	0.	0.	0.	0.	1.	3.	0.	0.	0.	0.	1.	8.96	
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	10.30	
NNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00	
N	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	8.40	
VARIABLE													0.00	
CALM													0.00	
TOTAL	0.	0.	3.	4.	7.	1.	8.	4.	9.	2.	1.	9.	40	7.06

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)											TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11	
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.14	0.09	0.03	0.00	0.03	0.37
SSE	0.00	0.00	0.00	0.00	0.03	0.00	0.09	0.03	0.03	0.00	0.00	0.14	0.37
S	0.00	0.00	0.00	0.14	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.23
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.03
SW	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.03
W	0.00	0.00	0.03	0.03	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32
WNW	0.00	0.00	0.00	0.00	0.00	0.03	0.14	0.00	0.00	0.00	0.03	0.03	0.23
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.05
VARIABLE													0.00
CALM													0.00
TOTAL	0.00	0.00	0.14	0.18	0.32	0.03	0.37	0.18	0.23	0.09	0.03	0.23	1.84

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2177

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 4TH QUARTER, 1983
 DAVES AND MOORE JOB NO. - 00377-082-09
 DATA PERIOD- 10/01/83 TO 12/31/83
 STABILITY CLASS 8C8 (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0	0	0	0	1	0	1	0	0	0	0	0	2	5.90
NE	0	0	0	0	0	0	1	0	0	0	0	0	1	7.00
ENE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ESE	0	0	0	0	0	0	0	0	0	0	0	1	1	17.80
SE	0	0	0	0	0	1	1	1	3	0	1	2	9	9.21
SSE	0	0	1	1	0	4	2	1	4	3	0	3	21	8.21
S	0	0	1	2	2	1	1	1	0	1	0	1	10	6.33
SSW	0	0	2	1	0	0	0	0	0	0	0	1	4	9.48
SW	0	0	1	1	0	0	0	2	0	0	0	0	4	9.08
WSW	0	0	0	1	0	3	0	0	3	0	0	1	8	7.28
W	0	0	0	1	1	1	0	0	0	0	0	0	3	4.63
WNW	0	0	1	2	4	1	2	1	0	0	0	2	13	6.68
NW	0	0	0	1	0	0	0	0	1	0	0	0	2	9.73
NNW	0	0	0	0	0	0	0	0	0	1	0	0	1	9.10
N	0	0	1	0	0	1	0	0	0	0	0	0	2	4.10
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	0	7	10	8	12	8	6	11	9	1	13	81	7.22

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.09	5.90
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.05	7.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	17.20
SE	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.14	0.00	0.05	0.09	0.41	9.21
SSE	0.00	0.00	0.05	0.05	0.00	0.18	0.09	0.05	0.18	0.14	0.00	0.23	0.96	8.21
S	0.00	0.00	0.05	0.09	0.09	0.05	0.05	0.05	0.00	0.05	0.00	0.05	0.46	6.33
SSW	0.00	0.00	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.18	9.48
SW	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.18	9.08
WSW	0.00	0.00	0.00	0.05	0.00	0.14	0.00	0.00	0.14	0.00	0.00	0.05	0.37	7.28
W	0.00	0.00	0.00	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.14	4.63
WNW	0.00	0.00	0.05	0.09	0.18	0.05	0.09	0.05	0.00	0.00	0.00	0.09	0.60	6.68
NW	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.09	9.73
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	9.10
N	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.09	4.10
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.00	0.32	0.46	0.37	0.55	0.37	0.28	0.51	0.23	0.05	0.60	3.72	7.22

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2200

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2177

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN DIEGO NUCLEAR GENERATING STATION
 4TH QUARTER, 1983
 D-JES AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 10/01/83 TO 12/31/83
 STABILITY CLASS 600 (10-60 METERS)
 WINDS AT 80 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0	1	2	4	1	2	1	0	1	0	0	0	12	4.30
NE	0	0	0	0	2	1	0	0	0	0	0	0	3	5.10
ENE	0	0	2	1	1	0	0	0	0	0	2	0	6	5.72
E	0	0	1	2	3	1	2	2	0	0	0	0	30	6.66
ESE	0	0	0	2	3	3	10	6	6	3	0	7	40	8.03
SE	0	1	4	6	9	12	18	18	13	11	8	14	117	7.74
SSE	0	0	3	4	9	4	8	4	2	3	2	13	48	9.03
S	0	1	4	0	1	2	1	1	0	4	4	9	27	10.36
SSW	0	1	9	1	2	2	3	0	1	1	2	9	27	8.38
SW	0	1	4	2	6	0	0	1	0	2	0	1	17	4.91
WSW	0	2	3	4	1	1	9	1	3	2	1	1	24	6.23
W	0	0	0	2	3	4	3	3	4	1	1	2	23	6.01
WNW	0	1	1	7	1	8	3	2	1	0	1	6	31	6.34
NW	0	1	3	8	7	6	7	4	3	3	0	2	44	5.88
NNW	0	1	1	7	7	1	1	4	0	0	0	0	22	4.63
N	2	2	3	19	9	9	1	2	0	0	0	0	30	4.04
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	2	12	36	60	57	53	63	48	36	30	21	73	491	7.21

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.03	0.09	0.18	0.09	0.09	0.09	0.00	0.09	0.00	0.00	0.00	0.93	4.30
NE	0.00	0.00	0.00	0.00	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.14	5.10
ENE	0.00	0.00	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.28	5.72
E	0.00	0.00	0.09	0.09	0.14	0.09	0.09	0.09	0.00	0.00	0.00	0.41	0.92	6.66
ESE	0.00	0.00	0.00	0.09	0.14	0.14	0.44	0.28	0.28	0.14	0.00	0.32	1.84	8.03
SE	0.00	0.03	0.18	0.28	0.41	0.60	0.83	0.83	0.69	0.31	0.37	0.64	3.37	7.74
SSE	0.00	0.00	0.14	0.18	0.23	0.18	0.37	0.18	0.09	0.14	0.09	0.60	2.20	9.03
S	0.00	0.03	0.18	0.00	0.09	0.09	0.09	0.09	0.00	0.18	0.18	0.41	1.24	10.36
SSW	0.00	0.03	0.23	0.09	0.09	0.09	0.14	0.00	0.09	0.09	0.09	0.41	1.24	8.38
SW	0.00	0.03	0.18	0.09	0.28	0.00	0.00	0.09	0.00	0.09	0.00	0.09	0.78	4.91
WSW	0.00	0.09	0.14	0.18	0.09	0.09	0.23	0.09	0.14	0.09	0.09	0.09	1.10	6.23
W	0.00	0.00	0.00	0.09	0.14	0.18	0.14	0.14	0.18	0.09	0.09	0.09	1.06	6.01
WNW	0.00	0.03	0.09	0.32	0.09	0.37	0.14	0.09	0.09	0.09	0.09	0.28	1.42	6.34
NW	0.00	0.03	0.14	0.37	0.32	0.28	0.32	0.18	0.14	0.14	0.00	0.09	2.02	5.88
NNW	0.00	0.03	0.09	0.32	0.32	0.09	0.09	0.18	0.00	0.00	0.00	0.00	1.01	4.63
N	0.09	0.09	0.14	0.46	0.23	0.23	0.09	0.09	0.00	0.00	0.00	0.00	1.38	4.04
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.09	0.93	1.63	2.76	2.62	2.43	2.89	2.20	1.63	1.38	0.96	3.33	22.93	7.21

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2177

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN Geronimo NUCLEAR GENERATING STATION
 4TH QUARTER, 1983
 DAMES AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 10/01/83 TO 12/31/83
 STABILITY CLASS BEB (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)											TOTAL	MEAN SPEED	
	1	2	3	4	5	6	7	8	9	10	11			>11
NNE	0	2	16	33	18	6	7	2	0	0	0	2	86	4.33
NE	0	4	9	3	3	1	0	0	0	0	0	0	16	3.04
ENE	0	0	1	2	0	2	0	2	0	1	0	0	8	3.69
E	0	1	4	4	3	1	0	0	1	0	1	1	16	4.99
ESE	0	0	4	10	8	9	0	0	0	0	0	0	27	4.10
SE	0	1	0	3	9	4	0	0	0	1	1	3	18	6.32
SSE	0	0	2	2	2	1	1	0	0	0	0	2	10	6.49
S	0	1	0	2	1	0	1	0	0	0	1	1	7	8.11
SSW	0	0	0	1	0	0	0	0	1	0	0	0	2	5.63
SW	0	0	1	0	1	0	0	0	0	0	0	0	2	3.90
WSW	0	0	0	1	1	0	0	0	0	0	0	1	3	6.83
W	0	0	1	1	0	1	0	0	0	0	0	0	11	12.49
WNW	0	0	1	1	1	1	3	1	1	1	1	3	16	8.86
NW	0	2	2	2	3	2	2	0	0	1	0	0	14	4.60
NNW	0	0	0	0	9	9	4	0	1	0	2	2	19	6.93
N	0	1	6	7	9	13	4	4	0	0	0	0	40	4.76
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	12	43	72	58	42	22	9	4	4	6	23	297	3.40

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0 00	0 09	0 73	1 52	0 83	0 28	0 32	0 09	0 08	0 00	0 00	0 09	3 93	4 33
NE	0 00	0 18	0 23	0 14	0 14	0 03	0 00	0 00	0 00	0 00	0 00	0 00	0 73	3 04
ENE	0 00	0 00	0 03	0 09	0 00	0 09	0 00	0 09	0 00	0 03	0 00	0 00	0 37	3 69
E	0 00	0 09	0 18	0 18	0 23	0 03	0 00	0 00	0 03	0 00	0 03	0 03	0 83	4 99
ESE	0 00	0 00	0 18	0 44	0 37	0 23	0 00	0 00	0 00	0 00	0 00	0 00	1 24	4 10
SE	0 00	0 03	0 00	0 14	0 23	0 18	0 00	0 00	0 00	0 03	0 03	0 14	0 83	6 32
SSE	0 00	0 00	0 09	0 09	0 09	0 03	0 03	0 00	0 00	0 00	0 00	0 09	0 44	6 49
S	0 00	0 03	0 00	0 09	0 09	0 00	0 03	0 00	0 00	0 00	0 03	0 03	0 37	8 11
SSW	0 00	0 00	0 00	0 03	0 00	0 00	0 00	0 00	0 03	0 00	0 00	0 00	0 09	3 63
SW	0 00	0 00	0 03	0 00	0 03	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 09	3 30
WSW	0 00	0 00	0 00	0 03	0 03	0 00	0 00	0 00	0 00	0 00	0 00	0 03	0 14	6 83
W	0 00	0 00	0 03	0 03	0 00	0 03	0 00	0 00	0 00	0 00	0 00	0 37	0 31	12 49
WNW	0 00	0 00	0 03	0 03	0 03	0 03	0 14	0 03	0 03	0 03	0 03	0 23	0 73	8 86
NW	0 00	0 09	0 09	0 09	0 14	0 09	0 09	0 00	0 00	0 03	0 00	0 00	0 64	4 60
NNW	0 00	0 00	0 00	0 00	0 23	0 23	0 18	0 00	0 03	0 00	0 09	0 09	0 87	6 93
N	0 00	0 03	0 28	0 32	0 23	0 60	0 18	0 18	0 00	0 00	0 00	0 00	1 84	4 76
VARIABLE													0 00	0 00
CALM													0 00	0 00
TOTAL	0 00	0 33	1 98	3 31	2 66	1 93	1 01	0 41	0 18	0 18	0 28	1 13	13 64	3 40

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2177

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN ONOFRE NUCLEAR GENERATING STATION
 4TH QUARTER, 1983
 DAMES AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 10/01/83 TO 12/31/83
 STABILITY CLASS BFB (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0	0	0	38	49	51	37	11	5	7	1	3	210	3.47
NE	0	9	7	9	0	2	2	0	1	0	0	0	30	3.86
ENE	0	0	2	2	1	0	0	0	0	0	0	1	6	4.72
E	0	1	3	2	1	1	0	0	0	0	0	0	8	3.14
ESE	0	0	1	1	0	0	0	0	0	0	0	0	2	3.10
SE	0	0	1	1	2	0	0	0	0	0	0	0	4	3.70
SSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
WSW	0	0	1	0	0	0	0	0	0	0	0	0	1	2.90
W	0	0	1	1	1	1	0	0	0	0	0	0	4	4.13
WNW	0	1	1	0	0	0	0	1	0	0	0	0	3	3.83
NW	0	0	1	0	1	0	0	0	0	0	0	0	2	3.70
NNW	0	1	0	0	1	1	0	1	0	0	0	0	4	4.85
N	0	0	3	6	3	1	3	6	6	0	2	1	35	6.20
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	8	31	36	67	37	44	19	12	7	3	5	309	5.22

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)												TOTAL	MEAN SPEED
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0.00	0.00	0.37	1.75	2.25	2.34	1.70	0.31	0.23	0.32	0.09	0.14	9.65	3.47
NE	0.00	0.23	0.32	0.23	0.37	0.09	0.07	0.00	0.03	0.00	0.00	0.00	1.38	3.86
ENE	0.00	0.00	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	4.72
E	0.00	0.03	0.14	0.09	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.37	3.14
ESE	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.10
SE	0.00	0.00	0.03	0.03	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	3.70
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	2.90
W	0.00	0.00	0.03	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.18	4.13
WNW	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.14	3.83
NW	0.00	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.70
NNW	0.00	0.03	0.00	0.00	0.03	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.18	4.85
N	0.00	0.00	0.23	0.28	0.14	0.03	0.23	0.28	0.28	0.00	0.09	0.03	1.61	6.20
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.37	1.42	2.57	3.08	2.62	2.02	0.67	0.35	0.32	0.14	0.23	14.19	5.22

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2177

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN Geronimo NUCLEAR GENERATING STATION
 4TH QUARTER, 1983
 DAVES AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 10/01/83 TO 12/31/83
 STABILITY CLASS 900 (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)											TOTAL	MEAN SPEED	
	1	2	3	4	5	6	7	8	9	10	11			>11
NNE	0	0	3	4	9	29	63	78	86	88	57	33	432	8.42
NE	0	0	1	7	0	1	0	0	1	0	0	0	10	4.13
ENE	0	0	1	1	0	1	0	0	0	0	0	0	3	3.67
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
ESE	0	0	2	0	0	1	0	0	0	0	0	0	3	3.27
SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SSW	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SW	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
WSW	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
W	0	0	0	1	1	0	0	0	0	0	0	0	2	4.20
WNW	0	0	0	0	0	1	0	0	0	0	0	0	1	3.70
NW	0	0	0	0	1	1	0	0	0	0	0	0	2	3.39
NNW	0	0	0	0	0	1	1	1	0	0	0	0	3	6.33
N	0	0	0	0	1	1	3	5	4	6	1	6	27	8.93
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	0	0	7	13	12	36	69	84	91	94	98	39	503	8.26

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH)											TOTAL	MEAN SPEED	
	1	2	3	4	5	6	7	8	9	10	11	>11		
NNE	0.00	0.00	0.14	0.18	0.41	1.33	2.99	3.98	3.95	4.04	2.62	1.32	20.76	8.42
NE	0.00	0.00	0.09	0.32	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.00	0.46	4.13
ENE	0.00	0.00	0.09	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.14	3.67
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.09	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.14	3.27
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	4.20
WNW	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.70
NW	0.00	0.00	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.39
NNW	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.14	6.33
N	0.00	0.00	0.00	0.00	0.09	0.09	0.14	0.23	0.18	0.28	0.09	0.28	1.24	8.93
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.00	0.32	0.60	0.55	1.65	3.17	3.86	4.18	4.32	2.66	1.79	23.11	8.26

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2177

TABLE 4A

SOUTHERN CALIFORNIA EDISON COMPANY
 SAN DIEGO NUCLEAR GENERATING STATION
 4TH QUARTER, 1983
 DAVIS AND MOORE JOB NO - 00377-082-09
 DATA PERIOD- 10/01/83 TO 12/31/83
 STABILITY CLASS ALL (10-40 METERS)
 WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0	3	29	79	78	88	113	94	92	97	38	38	769	7.08
NE	0	9	13	19	13	8	4	0	2	0	0	1	63	3.97
ENE	0	0	6	6	2	3	0	2	0	2	2	2	29	5.65
E	0	2	8	8	9	3	2	2	1	0	1	10	46	6.11
ESE	0	0	7	13	11	9	10	6	6	3	0	8	73	6.37
SE	0	2	8	10	16	19	20	29	21	19	10	22	169	7.66
SSE	0	0	6	7	10	12	16	10	9	10	6	26	112	8.52
S	0	2	8	10	12	11	20	9	3	7	7	12	101	7.47
SSW	0	1	13	16	10	6	11	2	3	1	2	11	76	6.13
SW	0	2	13	12	24	12	3	7	1	3	0	1	78	4.85
WSW	0	2	7	20	21	26	34	11	8	4	1	3	127	5.79
W	0	0	9	14	29	42	34	23	13	12	4	10	186	6.78
WNW	0	2	9	12	9	18	18	13	6	9	4	26	118	7.66
NW	0	3	6	11	13	9	9	9	9	4	1	2	68	5.64
NNW	0	2	1	7	14	9	6	6	1	1	2	2	51	5.72
N	2	3	15	23	14	21	16	17	11	6	6	7	141	5.94
VARIABLE													0	0.00
CALM													0	0.00
TOTAL	2	33	147	263	289	299	306	332	182	170	104	181	2198	6.74

WIND FREQUENCY DISTRIBUTION
 (FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.14	1.32	3.99	3.99	4.00	5.14	4.28	4.19	4.41	2.64	1.73	38.99	7.08
NE	0.00	0.41	0.99	0.68	0.99	0.23	0.18	0.00	0.09	0.00	0.00	0.05	2.82	3.97
ENE	0.00	0.00	0.27	0.27	0.09	0.14	0.00	0.09	0.00	0.09	0.09	0.09	1.14	5.65
E	0.00	0.09	0.36	0.36	0.41	0.14	0.09	0.09	0.09	0.00	0.05	0.43	2.09	6.11
ESE	0.00	0.00	0.32	0.99	0.90	0.41	0.43	0.27	0.27	0.14	0.00	0.36	3.32	6.37
SE	0.00	0.09	0.23	0.43	0.73	0.86	0.91	1.14	0.96	0.68	0.43	1.00	7.91	7.66
SSE	0.00	0.00	0.27	0.32	0.43	0.95	0.73	0.43	0.41	0.43	0.27	1.18	9.10	8.52
S	0.00	0.09	0.36	0.43	0.95	0.90	0.91	0.41	0.14	0.32	0.32	0.93	6.60	7.47
SSW	0.00	0.09	0.99	0.73	0.43	0.27	0.90	0.09	0.14	0.05	0.09	0.90	3.46	6.13
SW	0.00	0.09	0.99	0.95	1.09	0.95	0.14	0.32	0.05	0.14	0.00	0.05	3.99	4.85
WSW	0.00	0.09	0.32	0.91	0.96	1.18	1.09	0.90	0.36	0.18	0.05	0.14	9.78	5.79
W	0.00	0.00	0.23	0.64	1.32	1.91	1.99	1.09	0.99	0.99	0.18	0.43	8.46	6.78
WNW	0.00	0.09	0.23	0.95	0.41	0.82	0.82	0.99	0.27	0.23	0.18	1.18	9.37	7.66
NW	0.00	0.14	0.27	0.90	0.99	0.41	0.41	0.23	0.23	0.18	0.05	0.09	3.09	5.64
NNW	0.00	0.09	0.05	0.32	0.64	0.41	0.27	0.27	0.05	0.05	0.09	0.09	2.32	5.72
N	0.09	0.14	0.68	1.09	0.64	0.96	0.73	0.77	0.90	0.27	0.27	0.32	6.41	5.94
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.09	1.90	6.69	11.97	12.97	13.33	13.92	10.96	8.28	7.73	4.73	8.23	100.00	6.74

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208

TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2177

SECTION H. 10 CFR 50, APPENDIX I, CONSIDERATIONS

Current Technical Specifications do not require and effluent monitoring capabilities do not allow, strict compliance with the provisions of 10 CFR 50, Appendix I. However, using data from an Appendix I study conducted for the years 1973, 1974, and 1975, conclusions can be drawn regarding relative release amounts versus doses assessed.

A submittal dated October 6, 1976, titled: Evaluation of Radioactive Gaseous Effluents from the San Onofre Nuclear Generating Station - Unit 1. For the Years 1973, 1974 and 1975 (CN05-RAD) lists releases and dose assessments for the years 1973, 1974, and 1975. In 1975, Appendix I criteria were met and the lowest doses were obtained. The releases for the last half of 1983 were categorized as Noble Gas, Particulate, Tritium and Iodine. The released quantity of radionuclides in each of these categories was at least an order of magnitude less than in 1975. Therefore, it may be concluded that the current reporting period complies with Appendix I of 10 CFR 50.

SECTION I. 40 CFR 190 CONSIDERATIONS

Current capabilities at Unit-1 do not allow for the direct determination (calculation) of doses from liquid and gaseous releases. However, comparing the releases from this reporting period to the referenced study in Section H, and direct dose measurements via TLDs located on the beach west of Unit-1, it can be concluded that the doses from releases at Unit-1, including scattered and direct radiation, comply with the provision of 40 CFR 190.

SECTION J. CONCLUSIONS

- Radioactive releases totaled $4.77\text{E}+0$ curies for liquid effluent releases and $3.08\text{E}-6$ curies total for gaseous effluent releases. Liquid releases were primarily tritium with $4.61\text{E}+0$ curies.
- Unit 1 generated radioactive releases which were below the Technical Specifications Limits for both gaseous and liquid effluents.
- Radwaste shipments totaled 5 shipments to Richland, Washington. There were $1.38\text{E}+2$ cubic meters of solid radwaste shipped containing $7.56\text{E}-1$ curies of radioactivity.
- Meteorological conditions during the semiannual period were typical of the meteorology at SONGS-1. Meteorological dispersion was good 32% of the time, fair 42% of the time and poor 26% of the time.
- 10 CFR 50, Appendix I criteria was met and SONGS-1 had no measurable radiological impact on the surrounding environment during the reporting period. This is based on a comparison with a report generated for the years 1973, 1974, and 1975 which showed compliance with the criteria set forth in Appendix I to 10 CFR 50.
- 40 CFR 190 compliance has been demonstrated using the comparison of this reporting period data with the study referenced in Section H.
- For liquid releases, marine sample analyses will indicate if any radioactive material has concentrated in marine life. However, detection of any tritium in these samples is not expected because of the rapid turnover of water in marine life and because of the bulk of ocean water available for dilution.
- The net results from the analysis of these effluent releases indicate the operation of SONGS-1 has not produced any detrimental effect on the environment.

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