SAN ONOFRE NUCLEAR GENERATING STATION UNIT 1 SEMIANNUAL EFFLUENT REPORT

JULY — DECEMBER 1982

SONGS - 1

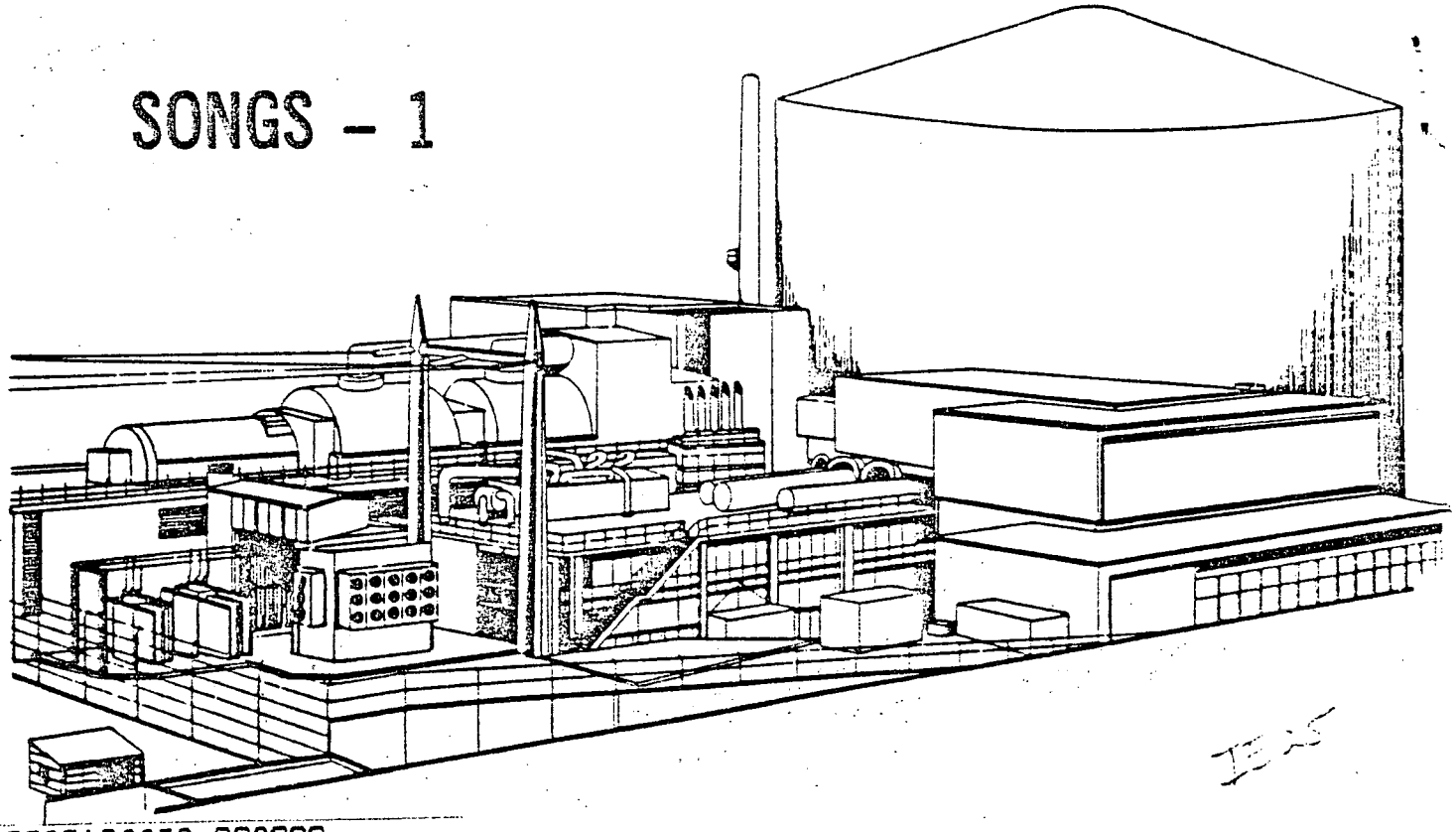


TABLE OF CONTENTS

SEMIANNUAL EFFLUENT REPORT

July - December 1982

SECTION A. INTRODUCTION

This Semiannual Report summarizes the gaseous and liquid radioactive effluent releases and solid waste shipments made from the San Onofre Nuclear Generating Station. This report is prepared in the general format of USNRC Regulatory Gudie 1.21 and includes:

1. quarterly summaries of liquid and gaseous effluents for "batch" and "continuous" modes of release;
2. percent of Technical Specification Limits;
3. estimated total percent error;
4. lower limit of detection concentrations;
5. meteorological data;
6. 10 CFR 50 Appendix I considerations;
7. 40 CFR 190 considerations;
8. radwaste shipments.

SECTION B. GASEOUS EFFLUENTS

Table 1A, "Gaseous Effluents - Summation of All Releases", and Table 1B, "Gaseous Effluents", provide a detailed listing of the quantity of gaseous effluent releases in four categories: Fission and Activation Gases, Iodines, Particulates, and Tritium. Table 1B provides the systematic listing by isotope of the quantity of radioactivity released in each category. The total activity of each isotope released is listed for the quarterly period and also is separated into "continuous" and "batch" modes of releases.

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

Table 1A, "Gaseous Effluents-Summation of All Releases", provides a summary of all gaseous effluent releases for the quarter. Listed are the total releases of each category, the average release rate for the quarter, and the percent of Technical Specification Limit (TSL). 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 "averaged over a year" condition, since the hourly condition of the TSL was the limiting condition by several orders of magnitude.

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

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 1982 Semiannual Report values for composite Gross Alpha, Sr-89, Sr-90, (Tables 1A and 1B Gaseous Efluents) were incomplete due to data not available prior to reporting time. The values were not reported for May and June 1982. Unfortunately, the particulate filters for the month of May were lost prior to being sent offsite for analysis. (Reported to NRC August 6, 1982; Licensee Event Report No 28-018). The following values are for the month of June 1982 only.

	Unit	
Gross Alpha	Ci	LLD
Sr-89	Ci	LLD
Sr-90	Ci	LLD

LLD = 1.45E-16 µCi/cc

TABLE 1A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	Third Quarter	Fourth Quarter	
A. Fission & activation gases				16% Estimated Total Error
1. Total release	Ci	1.01E-3	LLD	
2. Average release rate for period	µCi/sec	1.27E-4	0.00	
3. Percent of Technical Specification Limit	%	9.34E-6	0.00	
B. Iodines				16% Estimated Total Error
1. Total Iodine	Ci	LLD	LLD	
2. Average release rate for period	µCi/sec	0.00	0.00	
3. Percent of Technical Specification Limit	%	0.00	0.00	
C. Particulate				19% Estimated Total Error
1. Particulates with half-lives > 8 days	Ci	LLD	4.66E-7	
2. Average release rate for period	µCi/sec	0.00	5.86E-8	
3. Percent of Technical Specification Limit	%	0.00	5.56E-8	
4. Gross Alpha Radioactivity	Ci	LLD	LLD **	
D. Tritium				25% Estimated Total Error
1. Total release	Ci	3.44E+0	2.98E+0	
2. Average release rate for period	µCi/sec	4.33E-1	3.75E-1	
3. Percent of Technical Specification Limit	%	1.56E-4	1.88E-4	

LLD - Lower Limit of Detection; See Table 1C.
** - Incomplete data-values reported are calculated using only October analysis the following Semiannual Report will include November & December analysis.

TABLE 1B

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
GASEOUS EFFLUENTS

Nuclides Released	Unit	Continuous Mode		Batch Mode	
		Third Quarter	Fourth Quarter	Third Quarter	Fourth Quarter
1. Fission gases					
krypton-85	Ci	LLD	LLD	1.01E-3	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	1.01E-3	LLD
2. Iodines					
iodine-131	Ci	LLD	LLD	LLD	LLD
iodine-133	Ci	LLD	LLD	LLD	LLD
iodine-135	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	LLD	LLD	LLD	LLD
3. Particulates					
strontium-89	Ci	LLD	LLD **	*	*
strontium-90	Ci	LLD	LLD **	*	*
cesium-134	Ci	LLD	LLD	LLD	LLD
cesium-137	Ci	LLD	4.66E-7	LLD	LLD
barium-lanthanum-140	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	LLD	4.66E-7	LLD	LLD
4. Tritium	Ci	3.44E+0	2.98E+0	NA	NA

** - Incomplete data-values reported are calculated using only October analysis. The following Seminannual Report will include November & December analysis.

* - See footnote, Table 1C

LLD - Lower Limit of Detection: See Table 1C.

NA - See footnote, Table 1C.

Meinke/Branagan

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8308120050 DOC.DATE: 83/02/23 NOTARIZED: NO DOCKET #
FACIL:50-206 San Onofre Nuclear Station, Unit 1, Southern Californ 05000206
AUTH.NAME AUTHOR AFFILIATION
RAY,H.B. Southern California Edison Co.
RECIP.NAME RECIPIENT AFFILIATION
ENGELKEN,R.H. Region 5, Office of Director

SUBJECT: "Semiannual Effluent Rept,Jul-Dec 1982." W/830223 ltr.

DISTRIBUTION CODE: IE25S COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 39
TITLE: Periodic Environ Monitoring Rept (50 DKT)-Annual/Semiannual/Effluent/

NOTES:J Hanchett 1cy PDR Documents. NRR/DL/SEP 1cy. 05000206

	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL
	NRR ORB5 BC	04	7	7				
INTERNAL:	AEOD		1	1	IE FILE	01	1	1
	NRR/DE/EEB	08	1	1	NRR/DL/ORAB	09	1	1
	NRR/DSI/METB		1	1	NRR/DSI/RAB	10	1	1
	RM/DDAMI/MIB		1	1				
EXTERNAL:	ACRS	11	1	1	LPDR	03	1	1
	NRC PDR	02	1	1	NTIS	05	1	1
NOTES:			2	2				

TOTAL NUMBER OF COPIES REQUIRED: LTTR 20 ENCL 20

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P.O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. B. RAY
STATION MANAGER

TELEPHONE
(714) 492-7700

February 23, 1983

U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. R. H. Engelken, Regional Administrator

Dear Sir:

Subject: Docket Number 50-206
Semiannual Radioactive Effluent Release Report
San Onofre Nuclear Generating Station, Unit 1

The semiannual radioactive effluent release report for the period from July 1, 1982 through December 31, 1982 is enclosed. This report is submitted in accordance with Provisional Operating License No. DPR-13, as amended.

This report has been prepared in the general format of U.S.N.R.C. Regulatory Guide 1.21, sections pertinent to SONGS 1. Included in this report are quarterly effluent summaries, percent of Technical Specification Limits, estimated total percent error, lower limit of detection concentrations, 40 CFR 190 considerations; meteorological data and 10 CFR 50 Appendix I considerations.

Please contact us if we can be of further assistance.

Sincerely,

IE25
1/1
BACKFIT

Enclosures: 2 copies

cc: Director, USNRC Division of Document Control Administration
L. Miller, USNRC Resident Inspector, Unit 1

TABLE 1C

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
GASEOUS EFFLUENTS - LOWER LIMIT OF DETECTION

ISOTOPES	BATCH MODE LLD (μCi/cc)	CONTINUOUS MODE LLD (μCi/cc)
Krypton-85m	5.85E-8	2.27E-8
Krypton-87	8.69E-8	8.98E-8
Krypton-88	1.33E-7	5.81E-8
Krypton-85	1.21E-5	7.52E-6
Xenon-133	1.58E-7	8.73E-8
Xenon-135	4.08E-8	1.84E-8
Xenon-135m	1.84E-7	1.64E-6
Xenon-138	4.93E-7	6.20E-6
Iodine-131	4.59E-8	1.71E-12
Iodine-133	5.14E-8	1.88E-12
Iodine-135	1.98E-7	4.44E-12
Strontium-89	*	1.80E-16
Strontium-90	*	1.80E-16
Cesium-134	NA	1.51E-13
Cesium-137	NA	1.62E-13
Lanthanum 140	NA	1.22E-13
Barium 140	NA	6.46E-13
Gross Alpha	*	1.80E-16

NA - Particulates are not analyzed prior to release.

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

SECTION C. LIQUID EFFLUENTS

Table 2A, "Liquid Effluents-Summation of All Releases", and Table 2B, "Liquid Effluents", provide a detailed listing of liquid effluent releases in four categories: Particulates, Tritium, Iodines and Gases. Table 2B provides the systematic listing by isotope of the quantity of radioactivity released in each category. The total activity of each isotope released is listed for each quarterly period and also is separated into "continuous" and "batch" modes of release.

Table 2A, "Liquid Effluents-Summation of All Releases", provides a summary of all liquid effluents for each quarter. 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 Technical Specification 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 (i.e., the volume of circulating water) used to dilute the batch releases.

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.

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

In January-June 1982 Semiannual Report, 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 report. The values not reported were for the second quarter, May and June 1982. The values are as follows:

	Unit	
Gross Alpha	Ci	3.46E-6
Strontium-89	Ci	4.61E-6
Strontium-90	Ci	8.49E-4

TABLE 2A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	Third Quarter	Fourth Quarter	
A. Particulates				
1. Total release	Ci	7.02E-1	1.64E-1	19% Estimated Total Error
2. Average diluted concentration during period	µCi/ml	1.37E-8	6.38E-9	
3. Percent of Technical Specification Limit	%	3.65E+0	5.92E-1	
B. Tritium				
1. Total release	Ci	2.83E+1	6.23E+0	19% Estimated Total Error
2. Average diluted concentration during period	µCi/ml	5.54E-7	2.42E-7	
3. Percent of Technical Specification Limit	%	6.63E-1	1.46E-1	
C. Iodines				
1. Total release	Ci	LLD	LLD	19% Estimated Total Error
2. Average diluted concentration during period	µCi/ml	0.00	0.00	
3. Percent of Technical Specification Limit	%	0.00	0.00	
D. Gases (Dissolved and Entrained)				
1. Total release	Ci	LLD	LLD	19% Estimated Total Error
2. Average diluted concentration during period	µCi/ml	0.00	0.00	
3. Percent of Technical Specification Limit	%	0.00	0.00	
E. Gross Alpha Radioactivity	Ci	LLD	LLD**	19% Estimated Total Error
F. Volume of waste released (prior to dilution)	liters	5.38E+6	3.96E+6	
G. Volume of dilution water used during period	liters	5.11E+10	2.57E+10	

LLD - Lower Limit of Detection; See Table 2C.
** - Incomplete data-values reported are calculated using only October analysis. The following Semiannual Report will include November & December analysis.

TABLE 2B

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
LIQUID EFFLUENTS

Nuclides Released	Unit	Continuous Mode		Batch Mode	
		Third Quarter	Fourth Quarter	Third Quarter	Fourth Quarter
1. Particulates					
strontium-89	Ci	LLD	LLD**	4.54E-5	LLD**
strontium-90	Ci	LLD	LLD**	2.22E-4	2.02E-4**
cesium-134	Ci	1.99E-4	5.96E-5	1.39E-1	1.80E-2
cesium-137	Ci	5.41E-4	1.65E-4	3.52E-1	8.25E-2
cobalt-58	Ci	LLD	LLD	5.84E-2	1.13E-2
cobalt-60	Ci	LLD	LLD	1.45E-1	4.87E-2
iron-59	Ci	LLD	LLD	LLD	LLD
zinc-65	Ci	LLD	LLD	LLD	LLD
manganese-54	Ci	LLD	LLD	7.70E-3	2.68E-3
chromium-51	Ci	LLD	LLD	LLD	LLD
silver-110m	Ci	LLD	LLD	LLD	6.38E-4
zirconium-niobium-95	Ci	LLD	LLD	LLD	LLD
molybdenum-99	Ci	LLD	LLD	LLD	LLD
technetium-99m	Ci	LLD	LLD	LLD	LLD
barium-lanthanum-140	Ci	LLD	LLD	LLD	LLD
cerium-141	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	7.40E-4	2.25E-4	7.02E-1	1.64E-1
B. Tritium	Ci	3.54E-3	5.66E-3	2.83E+1	6.22E+0
C. Iodines					
iodine-131	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	LLD	LLD	LLD	LLD
D. Dissolved and Entrained Gases					
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.

** - Incomplete data-values reported are calculated using only October analysis. The following Seminannual Report will include November and December analysis.

TABLE 2C

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
LIQUID EFFLUENTS - LOWER LIMIT OF DETECTION

ISOTOPES	BATCH MODE LLD (μCi/ml)	CONTINUOUS MODE LLD (μCi/ml)
Strontium-89	1.00E-7	3.00E-8
Strontium-90	5.00E-8	1.50E-8
Cobalt-58	1.98E-8	1.27E-7
Cobalt-60	1.75E-8	1.92E-7
Manganese-54	3.20E-8	1.33E-7
Iron-59	4.49E-6	2.00E-7
Zinc-65	7.86E-6	2.34E-7
Chromium-51	1.89E-5	4.15E-7
Zirconium-95	5.22E-6	1.44E-7
Niobium-95	2.87E-6	1.10E-7
Molybdenum-99	1.66E-3	1.35E-5
Technetium-99m	1.72E-6	8.06E-7
Barium-140	1.39E-5	8.24E-7
Lanthanum-140	1.04E-4	2.28E-5
Cerium-141	3.02E-6	1.66E-7
Iodine-131	7.57E-6	7.09E-7
Xenon-133	2.87E-5	5.16E-6
Xenon-135	3.74E-4	3.24E-7
Gross Alpha	5.00E-9	3.00E-8

SECTION D. RADWASTE SHIPMENTS

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
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	2.27E+0	3.00E+1
	Ci	3.95E+1	
b. Dry Compressible Waste, Contaminated Equip. Etc.	m^3	2.83E+2	3.00E+1
	Ci	5.14E+0	
c. Irradiated Components, Control Rods, Etc.	m^3	0.00	3.00E+1
	Ci	0.00	
d. Absorbed Liquids, Sand, Building Rubble, Biological Waste	m^3	3.95E+2	3.00E+1
	Ci	5.31E-2	

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

a.

Mn-54	3.90E+0%	1.54E+0
Co-58	7.22E+0%	2.85E+0
Co-60	7.85E+1%	3.10E+1
Co-57	1.10E-1%	4.40E-2
Sr-90	5.60E-1%	2.20E-1
Cs-134	3.18E+0%	1.25E+0
Cs-137	6.50E+0%	2.56E+0

b.

Mn-54	1.79E+0%	9.20E-2
Co-57	1.00E-2%	7.65E-4
Co-60	7.64E+1%	3.93E+0
Cs-134	3.62E+0%	1.86E-1
Cs-137	1.70E+1%	8.74E-1
Ce-144	1.20E+0%	6.14E-2

c.

Not Applicable	0.00%	0.00

d.

Mn-54	0.00%	4.31E-7
Co-58	0.00%	3.32E-7
Co-60	1.77E+0%	9.39E-4
Cs-134	1.54E+0%	8.18E-4
Cs-137	9.67E+1%	5.14E-2

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1982)
SOLID WASTE AND IRRADIATED FUEL SHIPMENT

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

3. Solid Waste Disposition

Number of Shipments	Mode of Transportation	Destination
34	South West Nuclear Truck	Richland, WA
1 Cask Shipment	South West Nuclear Carrier	Richland, WA

SECTION E. TECHNICAL SPECIFICATION LIMITS

The existing Technical Specification 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:

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

averaged over a year; and $\Sigma_i \, C_i/MPC_i \leq 10$ 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 conditions is exceeded.

$$\Sigma_i \, C_i/MPC_i \leq 1$$

Where: C_i = Concentration of radionuclide i in the circulating water discharge at the point of release to unrestricted areas; in µCi/ml.

MPC_i = Maximum Permissible Concentration of radionuclide i, as defined in 10 CFR 20, Appendix B, Table II, Column 2; in µCi/ml.

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 desires.

Averaged over an hour, radioactivity released shall not result in concentrations in circulating water discharged 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.

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:

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

Where: 10 = As defined above

h = Subscript used to indicate the hourly period when maximum released occurred; in Ci.

$A_{i,h}$ = Activity of radionuclide i released during the hour when maximum releases ocurred; 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:

$$\Sigma_i C_i/MPC_i \leq 1$$

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 μCi/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:

$$[(5.56E\text{-}6)\ \Sigma_i\ (Q_i/MPC_i)] \times 100\%$$

Where: 5.56E-6 = Atmospheric dispersion factor, in sec/m^3

Q_i = Release rate of nuclide 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:

$$[(5.56E\text{-}7)\ \Sigma_i\ (Q_{i,h}/MPC_i)] \times 100\%$$

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 nuclide 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 determined. Sources of error considered for gaseous effluents-batch releases are the following: (1) tank volumes, (2) sampling errors, (3) counting errors, and (4) calibration errors. Sources of error for gaseous effluents-continuous release are the following: (1) fan flow rate error, (2) sampling error, (3) counting errors, and (4) calibration errors.

Sources of error for liquid effluents-batch releases are the following: (1) tank volumes, (2) dilution water flow rate, (3) sampling errors, (4) counting error, and (5) calibration errors. These sources of error are independent; thus the total error is calculated according to the following formula:

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

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, 1982, 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 Tables 3A and 3B 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 period, but are not included here because of the bulk of data recorded.

Table 3A, "JFD's Third Quarter 1982" and Table 3B, "JFD's Fourth Quarter 1982" list the joint frequency distributions for the third and fourth quarters of 1982. Each page of the tables represents the data that is classified as stability Class A, B, C, D, E, F, G; the last page of each table is the JFD with all stability classes combined. Each page is divided into two parts; the upper part lists the number of hourly periods when each meteorology conditions occurred and the lower part of each page 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 3A JFD's Third Quarter 1982

Stability Class A

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
3RD QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 07/01/82 TO 09/30/82
STABILITY CLASS 6A6 (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) 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.	2.	2.	0.	1.	0.	5.	8.48
SSE	0.	0.	0.	0.	1.	0.	0.	0.	0.	1.	1.	3.	6.	10.13
S	0.	0.	0.	1.	7.	5.	10.	5.	9.	8.	7.	14.	66.	8.49
SSW	0.	0.	0.	9.	18.	19.	18.	15.	7.	7.	1.	1.	95.	6.29
SW	0.	0.	0.	8.	25.	39.	40.	18.	8.	1.	1.	2.	142.	6.12
WSW	0.	0.	0.	2.	24.	41.	65.	49.	19.	12.	2.	2.	216.	6.78
W	0.	0.	0.	3.	11.	28.	46.	46.	37.	14.	1.	0.	186.	7.10
WNW	0.	0.	0.	1.	1.	3.	9.	6.	9.	12.	3.	1.	45.	8.17
NW	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	5.90
NNW	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	4.70
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.	24.	68.	136.	168.	141.	91.	55.	17.	23.	763.	6.94

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 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	0.09	0.09	0.00	0.05	0.00	0.23	8.48
SSE	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.05	0.14	0.27	10.13
S	0.00	0.00	0.00	0.05	0.32	0.23	0.46	0.23	0.41	0.37	0.32	0.64	3.02	8.49
SSW	0.00	0.00	0.00	0.41	0.82	0.87	0.82	0.69	0.32	0.32	0.05	0.05	4.35	6.29
SW	0.00	0.00	0.00	0.37	1.14	1.79	1.83	0.82	0.37	0.05	0.05	0.09	6.50	6.12
WSW	0.00	0.00	0.00	0.09	1.10	1.86	2.98	2.24	0.87	0.55	0.09	0.09	9.89	6.78
W	0.00	0.00	0.00	0.14	0.50	1.28	2.11	2.11	1.69	0.64	0.05	0.00	8.52	7.10
WNW	0.00	0.00	0.00	0.05	0.05	0.14	0.41	0.27	0.41	0.55	0.14	0.05	2.06	8.17
NW	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	5.90
NNW	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	4.70
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	1.10	4.03	6.23	8.61	6.46	4.17	2.52	0.78	1.05	34.94	6.94

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OC OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2184

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
3RD QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 07/01/82 TO 09/30/82
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) 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.	0.	0.	0.	0.	0.	0.	0.00
SSE	0.	0.	0.	0.	1.	2.	2.	1.	0.	2.	0.	1.	9.	7.72
S	0.	0.	0.	2.	0.	0.	1.	0.	2.	0.	0.	0.	5.	6.12
SSW	0.	0.	0.	0.	5.	2.	0.	1.	0.	1.	0.	0.	9.	5.61
SW	0.	0.	1.	3.	2.	1.	0.	1.	0.	0.	0.	0.	8.	4.54
WSW	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	3.	4.67
W	0.	0.	0.	2.	1.	1.	0.	0.	1.	0.	0.	0.	5.	5.16
WNW	0.	0.	0.	1.	1.	0.	1.	1.	1.	0.	0.	0.	5.	6.28
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
NNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
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.	1.	9.	11.	7.	4.	4.	4.	3.	0.	1.	44.	5.87

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.05	0.09	0.09	0.05	0.00	0.09	0.00	0.05	0.41	7.72
S	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.05	0.00	0.09	0.00	0.00	0.23	6.12
SSW	0.00	0.00	0.00	0.00	0.23	0.09	0.00	0.05	0.00	0.05	0.00	0.00	0.41	5.61
SW	0.00	0.00	0.05	0.14	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.37	4.54
WSW	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	4.67
W	0.00	0.00	0.00	0.09	0.05	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.23	5.16
WNW	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.23	6.28
NW	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
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	0.00	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	0.41	0.50	0.32	0.18	0.18	0.18	0.14	0.00	0.05	2.01	5.87

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2184

Table 3A JFD's Third Quarter 1982

Stability Class B

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
3RD QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 07/01/82 TO 09/30/82
STABILITY CLASS #C# (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	0.	0.	0.	0.	1.	1.	0.	1.	0.	0.	0.	3.	6.93
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.	1.	2.	8.60
SE	0.	0.	0.	0.	0.	1.	0.	0.	1.	1.	1.	6.	12.	10.06
SSE	0.	0.	0.	1.	0.	0.	2.	0.	1.	1.	0.	0.	13.	5.33
S	0.	0.	2.	1.	2.	4.	3.	0.	1.	1.	0.	1.	10.	5.74
SSW	0.	0.	2.	2.	1.	0.	1.	1.	0.	0.	0.	1.	6.	5.65
SW	0.	0.	0.	3.	0.	1.	0.	1.	0.	0.	0.	0.	5.	4.38
WSW	0.	0.	0.	3.	1.	0.	0.	1.	0.	0.	0.	0.	10.	3.75
W	0.	1.	2.	2.	4.	1.	0.	0.	0.	0.	1.	0.	10.	5.63
WNW	0.	0.	1.	2.	1.	2.	0.	0.	1.	0.	1.	0.	2.	6.95
NW	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	3.90
NNW	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
N	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			0.	0.00
VARIABLE													0.	0.00
CALM														
TOTAL	0.	1.	7.	18.	10.	10.	9.	3.	5.	2.	2.	9.	74.	6.11

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 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	0.05	0.05	0.00	0.05	0.00	0.00	0.00	0.14	6.93
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	0.05	0.09	8.60
SE	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.55	10.06
SSE	0.00	0.00	0.00	0.05	0.00	0.00	0.09	0.00	0.05	0.05	0.05	0.00	0.60	5.33
S	0.00	0.00	0.09	0.09	0.09	0.18	0.14	0.00	0.05	0.00	0.00	0.05	0.46	5.74
SSW	0.00	0.00	0.09	0.14	0.05	0.00	0.05	0.05	0.00	0.00	0.00	0.05	0.27	5.65
SW	0.00	0.00	0.00	0.14	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.23	4.38
WSW	0.00	0.00	0.00	0.14	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.46	3.75
W	0.00	0.05	0.09	0.09	0.18	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.46	5.63
WNW	0.00	0.00	0.05	0.09	0.05	0.09	0.09	0.00	0.05	0.00	0.05	0.00	0.09	6.95
NW	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	3.90
NNW	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
VARIABLE													0.00	0.00
CALM														
TOTAL	0.00	0.05	0.32	0.73	0.46	0.46	0.41	0.14	0.23	0.09	0.09	0.41	3.39	6.11

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2184

Table 3A JFD's Third Quarter 1982

Stability Class C

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
3RD QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 07/01/82 TO 09/30/82
STABILITY CLASS 6D6 (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	2.	2.	9.	21.	19.	8.	6.	0.	0.	0.	0.	67.	5.03
NE	0.	0.	0.	5.	5.	2.	1.	0.	0.	0.	0.	0.	13.	4.47
ENE	0.	0.	3.	4.	2.	1.	0.	0.	0.	0.	0.	0.	10.	3.62
E	0.	0.	3.	3.	3.	8.	1.	2.	1.	1.	0.	0.	22.	5.14
ESE	0.	0.	1.	4.	12.	4.	4.	2.	5.	2.	0.	0.	38.	5.77
SE	0.	0.	7.	19.	19.	28.	30.	12.	4.	7.	1.	2.	128.	5.92
SSE	0.	0.	5.	20.	26.	19.	18.	18.	13.	9.	8.	16.	152.	6.94
S	0.	3.	12.	12.	15.	4.	9.	8.	5.	4.	0.	4.	76.	5.34
SSW	0.	1.	7.	10.	10.	0.	2.	1.	4.	5.	2.	1.	44.	5.21
SW	0.	2.	5.	11.	5.	1.	0.	1.	1.	0.	0.	2.	27.	4.16
WSW	0.	1.	7.	6.	4.	2.	0.	0.	1.	0.	0.	0.	22.	3.93
W	0.	2.	8.	6.	1.	5.	0.	0.	0.	0.	0.	0.	48.	4.46
WNW	0.	1.	8.	17.	8.	7.	2.	2.	1.	2.	0.	2.	44.	5.02
NW	0.	2.	11.	5.	6.	9.	2.	5.	0.	2.	0.	0.	32.	4.34
NNW	0.	1.	9.	7.	4.	6.	1.	3.	1.	0.	0.	0.	45.	3.88
N	0.	0.	13.	14.	11.	6.	0.	1.	0.	0.	0.	0.	0.	0.00
VARIABLE													0.	0.00
CALM													793.	5.40
TOTAL	0.	19.	109.	140.	193.	123.	80.	61.	38.	31.	11.	28.		

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.09	0.09	0.41	0.96	0.87	0.37	0.27	0.00	0.00	0.00	0.00	3.07	5.03
NE	0.00	0.00	0.00	0.23	0.23	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.60	4.47
ENE	0.00	0.00	0.14	0.18	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.46	3.62
E	0.00	0.00	0.14	0.14	0.14	0.37	0.05	0.09	0.05	0.05	0.00	0.00	1.01	5.14
ESE	0.00	0.00	0.09	0.18	0.55	0.27	0.27	0.09	0.23	0.09	0.00	0.00	1.74	5.77
SE	0.00	0.00	0.41	0.87	0.82	1.20	1.37	0.55	0.18	0.41	0.05	0.09	5.86	5.92
SSE	0.00	0.00	0.23	0.92	1.19	0.87	0.82	0.82	0.60	0.41	0.37	0.73	6.96	6.94
S	0.00	0.14	0.55	0.55	0.69	0.18	0.41	0.37	0.23	0.18	0.00	0.18	3.48	5.34
SSW	0.00	0.09	0.41	0.46	0.46	0.00	0.09	0.05	0.27	0.09	0.09	0.05	2.01	5.21
SW	0.00	0.09	0.23	0.50	0.23	0.05	0.00	0.05	0.05	0.00	0.00	0.05	1.24	4.16
WSW	0.00	0.05	0.32	0.27	0.27	0.09	0.00	0.00	0.05	0.00	0.00	0.09	1.14	4.53
W	0.00	0.09	0.37	0.27	0.05	0.23	0.00	0.00	0.00	0.00	0.00	0.00	1.01	3.93
WNW	0.00	0.09	0.37	0.78	0.37	0.32	0.09	0.09	0.05	0.09	0.00	0.00	2.20	4.46
NW	0.00	0.09	0.37	0.78	0.37	0.32	0.09	0.09	0.05	0.09	0.00	0.09	2.01	5.02
NW	0.00	0.09	0.50	0.23	0.27	0.41	0.09	0.23	0.00	0.09	0.00	0.09	1.47	4.34
NNW	0.00	0.05	0.41	0.32	0.18	0.27	0.05	0.14	0.05	0.00	0.00	0.00	2.06	3.88
N	0.00	0.00	0.60	0.64	0.50	0.27	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
VARIABLE													0.00	0.00
CALM													36.31	5.40
TOTAL	0.00	0.69	4.81	6.78	7.01	5.63	3.66	2.79	1.74	1.42	0.50	1.28		

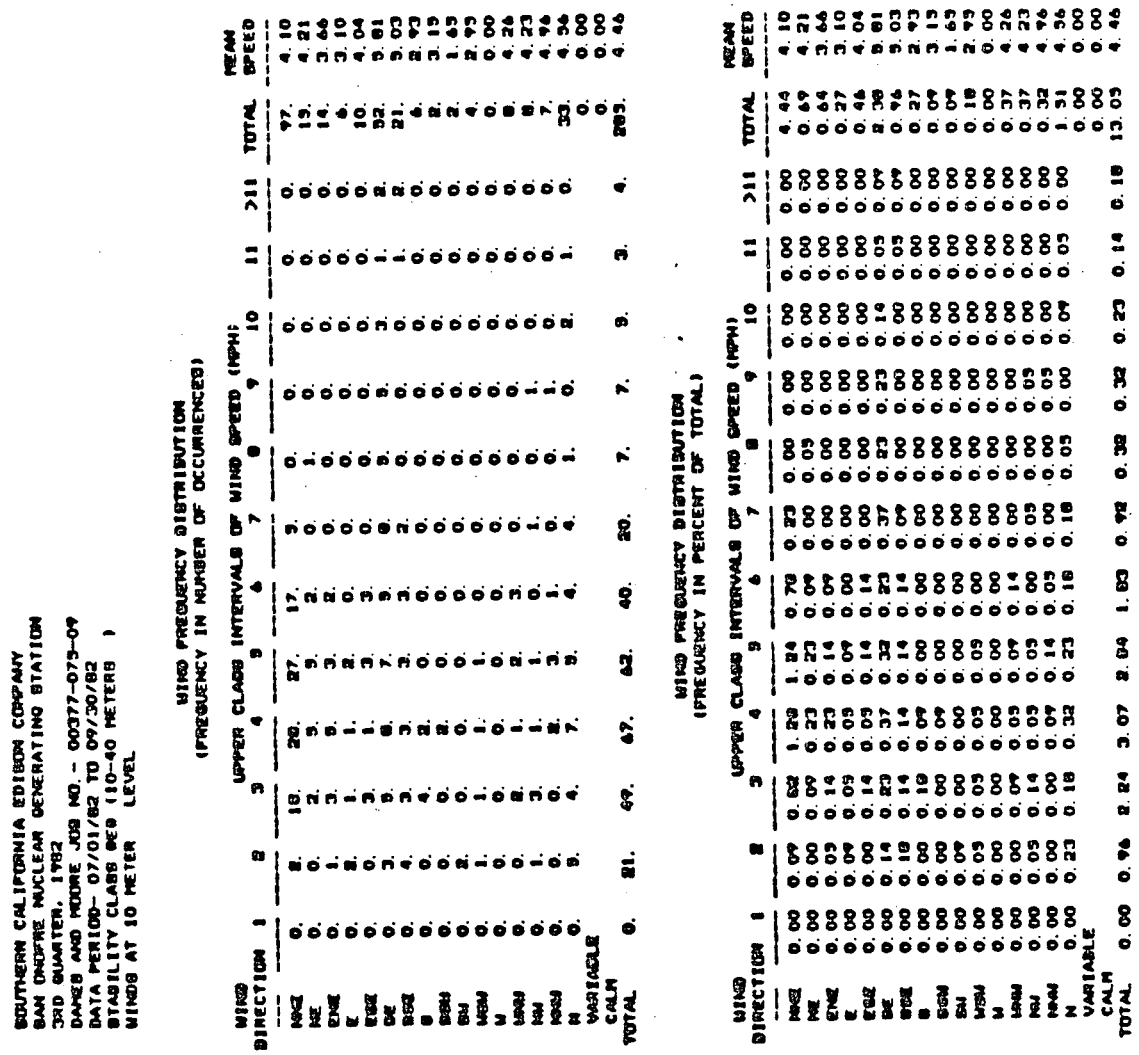
TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2184

Table 3A JFD's Third Quarter 1982

Stability Class D

Table 3A JFD's Third Quarter 1982

Stability Class E



SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
3RD QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 07/01/82 TO 09/30/82
STABILITY CLASS BEG (10-40 METERS)
WINDS AT 10 METER LEVEL

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN NUMBER OF OCCURRENCES)

WIND DIRECTION	1	2	3	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	8.	18.	28.	27.	17.	3.	1.	0.	0.	0.	0.	97.	4.10
NE	0.	0.	2.	5.	5.	2.	0.	0.	0.	0.	0.	0.	13.	4.21
ENE	0.	1.	1.	1.	3.	2.	0.	0.	0.	0.	0.	0.	8.	3.44
E	0.	2.	1.	1.	2.	3.	1.	0.	0.	0.	0.	0.	10.	3.10
ESE	0.	0.	2.	1.	1.	5.	0.	0.	0.	0.	0.	0.	9.	4.04
SE	0.	0.	0.	1.	7.	3.	0.	0.	0.	0.	0.	0.	11.	3.81
SSE	0.	0.	0.	3.	3.	2.	2.	0.	0.	0.	0.	0.	10.	3.93
S	0.	0.	0.	2.	2.	0.	0.	0.	0.	0.	0.	0.	4.	3.00
SSW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
SW	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	1.	3.00
WSW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
W	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
WNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
NNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
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.	11.	22.	42.	52.	34.	6.	1.	0.	0.	0.	0.	168.	3.59

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	1	2	3	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.00	0.02	1.29	1.24	0.78	0.23	0.00	0.00	0.00	0.00	0.00	4.44	4.10
NE	0.00	0.00	0.00	0.23	0.23	0.09	0.00	0.05	0.00	0.00	0.00	0.00	0.59	4.21
ENE	0.00	0.00	0.05	0.23	0.14	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.64	3.44
E	0.00	0.00	0.14	0.23	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	3.10
ESE	0.00	0.00	0.05	0.05	0.05	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.46	4.04
SE	0.00	0.00	0.14	0.05	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.46	3.81
SSE	0.00	0.00	0.23	0.37	0.32	0.23	0.09	0.23	0.00	0.14	0.00	0.00	1.56	3.93
S	0.00	0.00	0.14	0.14	0.14	0.14	0.09	0.00	0.00	0.00	0.00	0.00	0.96	3.00
SSW	0.00	0.00	0.18	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	3.00
SW	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.00
WSW	0.00	0.00	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	2.00
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	3.00
WNW	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	4.00
NW	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	4.24
NNW	0.00	0.00	0.00	0.09	0.14	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.27	4.23
N	0.00	0.00	0.00	0.14	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	4.00
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.96	2.24	3.07	2.84	1.83	0.92	0.38	0.32	0.23	0.14	0.18	13.03	4.46

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2164

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
3RD QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-079-09
DATA PERIOD- 07/01/82 TO 09/30/82
STABILITY CLASS 6F0 (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	0.	3.	19.	14.	20.	24.	8.	2.	2.	0.	0.	88.	5.58
NE	0.	1.	2.	3.	1.	0.	1.	0.	0.	0.	0.	0.	8.	3.51
ENE	0.	0.	0.	2.	0.	2.	0.	0.	0.	0.	0.	0.	4.	4.53
E	0.	1.	0.	1.	2.	0.	0.	0.	0.	0.	0.	0.	4.	3.63
ESE	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	3.00
SE	0.	1.	0.	1.	0.	0.	0.	0.	0.	1.	1.	0.	4.	6.22
SSE	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.60
S	0.	0.	1.	0.	1.	0.	0.	0.	0.	0.	0.	0.	2.	3.55
SSW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
SW	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	3.	2.83
WSW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
W	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.50
WNW	0.	1.	0.	1.	0.	0.	0.	1.	0.	0.	0.	0.	3.	4.30
NW	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	3.60
NNW	0.	0.	0.	1.	0.	2.	0.	1.	0.	1.	0.	0.	5.	6.24
N	0.	1.	1.	4.	4.	2.	2.	2.	1.	0.	0.	0.	17.	4.99
VARIABLE													0.	0.00
CALM													0.	0.00
TOTAL	0.	5.	13.	29.	22.	27.	27.	12.	3.	4.	1.	0.	143.	5.19

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.00	0.14	0.69	0.64	0.92	1.10	0.37	0.09	0.09	0.00	0.00	4.03	5.58
NE	0.00	0.05	0.09	0.14	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.37	3.51
ENE	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.18	4.53
E	0.00	0.05	0.00	0.05	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	3.63
ESE	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3.00
SE	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.18	6.22
SSE	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	2.60
S	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	3.55
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	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	2.83
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	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	2.50
WNW	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.14	4.30
NW	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	3.60
NNW	0.00	0.00	0.00	0.05	0.00	0.09	0.00	0.05	0.00	0.05	0.00	0.00	0.23	6.24
N	0.00	0.05	0.05	0.18	0.18	0.09	0.09	0.09	0.05	0.00	0.00	0.00	0.78	4.99
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.23	0.60	1.33	1.01	1.24	1.24	0.55	0.14	0.18	0.05	0.00	6.55	5.19

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2184

Table 3A JFD's Third Quarter 1982
Stability Class F

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
3RD QUARTER, 1982
DAMES AND MOORE JOB NO.- 00377-079-09
DATA PERIOD- 07/01/82 TO 09/30/82
STABILITY CLASS 999 (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	0.	1.	2.	3.	6.	14.	22.	19.	9.	1.	0.	73.	7.37
NE	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	1.	6.10
ENE	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.80
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.	1.	0.	0.	0.	0.	0.	1.	6.40
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.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
WNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
NNW	0.	0.	0.	0.	0.	0.	0.	1.	2.	1.	0.	0.	4.	7.33
N	0.	0.	0.	1.	0.	1.	0.	1.	2.	1.	0.	0.	6.	8.00
VARIABLE													0.	0.00
CALM													0.	0.00
TOTAL	0.	0.	2.	3.	3.	7.	16.	23.	17.	10.	1.	0.	82.	7.28

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.00	0.05	0.09	0.14	0.27	0.64	1.01	0.69	0.41	0.05	0.00	3.34	7.37
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	6.10
ENE	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	2.80
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	0.05	0.00	0.00	0.00	0.00	0.00	0.05	6.40
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	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
NW	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
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	0.05	0.00	0.05	0.00	0.05	0.09	0.05	0.00	0.00	0.27	7.33
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.00	0.09	0.14	0.14	0.32	0.73	1.09	0.78	0.46	0.05	0.00	3.75	7.28

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OC OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2184

Table 3A JFD's Third Quarter 1982

Stability Class G

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
3RD QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 07/01/82 TO 09/30/82
STABILITY CLASS ALL (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	4.	24.	54.	65.	63.	32.	36.	18.	11.	1.	0.	328.	5.44
NE	0.	1.	4.	13.	11.	4.	3.	1.	0.	0.	0.	0.	37.	4.20
ENE	0.	1.	7.	11.	5.	5.	0.	0.	0.	0.	0.	0.	29.	3.74
E	0.	3.	4.	5.	7.	8.	1.	2.	1.	1.	0.	0.	32.	4.57
ESE	0.	0.	5.	5.	15.	7.	6.	2.	5.	2.	0.	0.	49.	5.36
SE	0.	4.	14.	24.	25.	35.	39.	19.	11.	13.	4.	5.	193.	5.99
SSE	0.	4.	9.	24.	32.	24.	24.	19.	14.	13.	11.	28.	202.	7.02
S	0.	3.	19.	18.	25.	13.	23.	13.	17.	12.	7.	10.	168.	6.58
SSW	0.	1.	11.	24.	34.	21.	21.	18.	14.	10.	3.	3.	160.	5.88
SW	0.	4.	8.	26.	32.	42.	40.	21.	9.	1.	1.	4.	188.	5.65
WSW	0.	2.	9.	13.	33.	44.	63.	50.	20.	12.	2.	4.	254.	6.41
W	0.	3.	18.	13.	18.	38.	48.	44.	38.	14.	1.	0.	231.	6.50
WNW	0.	2.	11.	23.	13.	14.	15.	12.	12.	15.	5.	1.	125.	6.12
NW	0.	3.	14.	7.	8.	11.	3.	5.	1.	3.	0.	2.	57.	4.98
NNW	0.	1.	9.	11.	8.	9.	1.	4.	2.	1.	0.	0.	46.	4.63
N	0.	4.	10.	26.	20.	13.	6.	5.	3.	3.	1.	0.	101.	4.49
VARIABLE													0.	0.00
CALM													0.	0.00
TOTAL	0.	42.	178.	297.	391.	359.	347.	253.	169.	111.	34.	68.	2200.	5.90

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.18	1.09	2.45	2.95	2.86	2.36	1.64	0.82	0.50	0.05	0.00	14.91	5.46
NE	0.00	0.05	0.18	0.59	0.50	0.18	0.14	0.05	0.00	0.00	0.00	0.00	1.68	4.20
ENE	0.00	0.05	0.32	0.50	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	1.32	3.74
E	0.00	0.14	0.18	0.23	0.32	0.36	0.05	0.09	0.05	0.05	0.00	0.00	1.45	4.57
ESE	0.00	0.00	0.23	0.23	0.68	0.41	0.27	0.09	0.23	0.09	0.00	0.00	2.23	5.36
SE	0.00	0.18	0.64	1.09	1.14	1.59	1.77	0.86	0.50	0.59	0.18	0.23	8.77	5.99
SSE	0.00	0.18	0.41	1.09	1.45	1.09	1.09	0.86	0.64	0.59	0.50	1.27	9.18	7.02
S	0.00	0.14	0.86	0.82	1.14	0.59	1.05	0.59	0.77	0.55	0.32	0.82	7.64	6.58
SSW	0.00	0.05	0.50	1.09	1.55	0.95	0.95	0.82	0.64	0.45	0.14	0.14	7.27	5.88
SW	0.00	0.18	0.36	1.18	1.45	1.91	1.82	0.95	0.41	0.05	0.05	0.18	8.55	5.65
WSW	0.00	0.09	0.41	0.59	1.50	2.00	2.95	2.27	0.91	0.55	0.09	0.18	11.55	6.41
W	0.00	0.14	0.55	0.59	0.82	1.73	2.18	2.09	1.73	0.64	0.09	0.00	10.50	6.50
WNW	0.00	0.09	0.50	1.05	0.59	0.73	0.68	0.55	0.55	0.68	0.23	0.05	5.68	6.12
NW	0.00	0.14	0.64	0.32	0.36	0.50	0.14	0.23	0.05	0.14	0.00	0.09	2.59	4.98
NNW	0.00	0.05	0.41	0.50	0.36	0.41	0.05	0.18	0.09	0.05	0.00	0.00	2.09	4.63
N	0.00	0.27	0.82	1.18	0.91	0.59	0.27	0.23	0.14	0.14	0.05	0.00	4.59	4.49
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	1.91	8.09	13.50	15.95	16.14	15.77	11.50	7.50	5.05	1.64	2.95	100.00	5.90

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OC OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2184

Table 3A JFD's Third Quarter 1982

Stability Class All

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
4TH QUARTER, 1982
DAMES AND MOORE JOB NO.- 00377-075-09
DATA PERIOD- 10/01/82 TO 12/31/82
STABILITY CLASS 6A9 (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) 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.	1.	0.	2.	3.	12.13
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.	1.	1.	0.	0.	2.	8.85
SSE	0.	0.	0.	2.	1.	3.	2.	0.	0.	0.	0.	0.	8.	6.19
S	0.	0.	1.	2.	5.	11.	2.	3.	5.	2.	0.	2.	33.	6.45
SSW	0.	0.	1.	7.	6.	8.	3.	0.	0.	0.	0.	1.	26.	4.93
SW	0.	0.	3.	10.	17.	5.	3.	0.	0.	0.	0.	0.	38.	4.38
WSW	0.	0.	1.	14.	30.	19.	13.	5.	1.	0.	0.	0.	83.	5.15
W	0.	0.	0.	5.	34.	34.	29.	14.	10.	1.	0.	0.	127.	5.92
WNW	0.	0.	0.	0.	2.	2.	15.	16.	5.	7.	2.	12.	61.	9.36
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	10.00
NNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
N	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	13.33
VARIABLE													0.	0.00
CALM													0.	0.00
TOTAL	0.	0.	6.	38.	96.	90.	68.	40.	22.	13.	2.	19.	384.	6.28

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 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	0.05	0.00	0.09	0.14	12.13
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	0.05	0.00	0.00	0.09	8.85
SSE	0.00	0.00	0.00	0.00	0.09	0.05	0.14	0.09	0.00	0.00	0.00	0.00	0.37	6.19
S	0.00	0.00	0.05	0.09	0.23	0.51	0.09	0.14	0.23	0.09	0.00	0.09	1.52	6.45
SSW	0.00	0.00	0.09	0.32	0.28	0.37	0.14	0.00	0.00	0.00	0.00	0.05	1.20	4.93
SW	0.00	0.00	0.14	0.46	0.78	0.23	0.14	0.00	0.00	0.00	0.00	0.00	1.75	4.38
WSW	0.00	0.00	0.05	0.65	1.38	0.88	0.60	0.23	0.05	0.00	0.00	0.00	3.83	5.15
W	0.00	0.00	0.00	0.23	1.57	1.57	1.34	0.65	0.46	0.05	0.00	0.00	5.86	5.92
WNW	0.00	0.00	0.00	0.00	0.09	0.09	0.69	0.74	0.23	0.32	0.09	0.55	2.81	9.36
NW	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	10.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	13.33
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.00	0.28	1.79	4.43	3.69	3.14	1.85	1.01	0.60	0.09	0.88	17.71	6.28

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2168

Table 3B JFD's Fourth Quarter 1982

Stability Class A

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
4TH QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 10/01/82 TO 12/31/82
STABILITY CLASS #B (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) 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.	2.	2.	14.20
NE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	1.	10.60
ENE	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	1.	7.90
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.	0.	0.	1.	2.	15.30
SSE	0.	0.	0.	0.	1.	0.	1.	1.	1.	0.	0.	0.	4.	6.70
S	0.	0.	0.	2.	1.	0.	2.	0.	0.	0.	0.	0.	5.	5.08
SSW	0.	0.	1.	2.	1.	0.	0.	0.	0.	0.	0.	0.	4.	3.33
SW	0.	0.	1.	0.	0.	1.	0.	0.	0.	0.	0.	0.	2.	4.20
WSW	0.	0.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.37
W	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	2.	4.15
WNW	0.	0.	0.	1.	1.	1.	3.	1.	1.	0.	0.	0.	8.	6.31
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
NNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
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.	3.	8.	5.	2.	6.	4.	2.	0.	1.	3.	34.	6.48

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 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	0.09	0.09	14.20
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.05	10.60
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	7.90
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	0.00	0.00	0.05	0.09	15.30
SSE	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.05	0.05	0.00	0.00	0.00	0.18	6.70
S	0.00	0.00	0.00	0.09	0.05	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.23	5.08
SSW	0.00	0.00	0.05	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	3.33
SW	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	4.20
WSW	0.00	0.00	0.05	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	3.37
W	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	4.15
WNW	0.00	0.00	0.00	0.05	0.05	0.05	0.14	0.05	0.05	0.00	0.00	0.00	0.37	6.31
NW	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
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	0.00	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	0.14	0.37	0.23	0.09	0.28	0.18	0.09	0.00	0.05	0.14	1.57	6.48

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2168

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
4TH QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 10/01/82 TO 12/31/82
STABILITY CLASS #C# (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	1.	1.	3.	12.67
NE	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	0.	2.	8.70
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	9.40
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.	1.	0.	1.	3.	14.00
SSE	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	0.	2.	6.26
S	0.	0.	0.	0.	2.	3.	0.	1.	0.	1.	1.	0.	7.	6.48
SSW	0.	0.	0.	2.	0.	0.	1.	0.	1.	0.	1.	0.	5.	6.00
SW	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	2.80
WSW	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	3.93
W	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	3.	5.10
WNW	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	10.77
NW	0.	0.	0.	0.	2.	1.	3.	0.	0.	0.	1.	4.	11.	5.40
NNW	0.	0.	0.	1.	0.	1.	0.	1.	0.	0.	0.	0.	3.	21.45
N	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.	10.10
VARIABLE	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.	0.00
CALM													0.	0.00
TOTAL	0.	0.	3.	4.	5.	7.	4.	4.	2.	2.	5.	9.	45.	9.03

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 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	0.05	0.00	0.05	0.05	0.14	12.67
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.09	8.70
ENE	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	9.40
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	0.05	0.00	0.05	0.14	14.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.32	6.26
S	0.00	0.00	0.00	0.00	0.09	0.14	0.00	0.05	0.00	0.05	0.00	0.05	0.23	6.48
SSW	0.00	0.00	0.00	0.09	0.00	0.00	0.05	0.00	0.05	0.00	0.05	0.00	0.23	6.00
SW	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	2.80
WSW	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	3.93
W	0.00	0.00	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	5.10
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	10.77
NW	0.00	0.00	0.00	0.00	0.09	0.05	0.14	0.00	0.00	0.00	0.05	0.18	0.51	5.40
NNW	0.00	0.00	0.00	0.05	0.00	0.09	0.00	0.05	0.00	0.00	0.00	0.00	0.14	21.45
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	10.10
VARIABLE	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.09	0.00
CALM													0.00	0.00
TOTAL	0.00	0.00	0.14	0.18	0.23	0.32	0.18	0.18	0.09	0.09	0.23	0.42	2.08	9.03

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2168

Table 3B JFD's Fourth Quarter 1982
Stability Class C

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
4TH QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 10/01/82 TO 12/31/82
STABILITY CLASS #D4 (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	0.	0.	3.	0.	1.	1.	0.	1.	0.	1.	2.	9.	8.06
NE	0.	0.	0.	0.	0.	1.	0.	0.	0.	1.	1.	4.	7.	11.50
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	3.	4.	12.10
E	0.	0.	0.	0.	1.	1.	7.	4.	0.	0.	0.	0.	14.	6.44
ESE	0.	0.	0.	1.	1.	1.	7.	2.	0.	1.	0.	3.	22.	7.06
SE	0.	0.	0.	0.	3.	6.	7.	7.	6.	3.	4.	11.	56.	8.32
SSE	0.	1.	0.	1.	5.	7.	11.	7.	3.	2.	1.	4.	44.	7.03
S	0.	0.	1.	2.	9.	11.	7.	3.	2.	1.	0.	11.	29.	10.42
SSW	0.	2.	2.	1.	3.	5.	3.	1.	0.	0.	0.	4.	13.	10.45
SW	0.	0.	1.	2.	2.	3.	0.	1.	0.	0.	0.	4.	9.	11.50
WSW	0.	0.	0.	3.	1.	1.	0.	0.	0.	0.	1.	1.	14.	6.41
W	0.	0.	3.	2.	1.	0.	2.	0.	0.	0.	1.	2.	15.	6.57
WNW	0.	0.	3.	3.	6.	1.	0.	0.	2.	0.	2.	12.	42.	10.89
NW	1.	0.	1.	6.	5.	4.	4.	3.	2.	1.	3.	10.	52.	8.04
NNW	0.	1.	2.	5.	3.	6.	4.	10.	7.	1.	0.	2.	13.	8.11
N	0.	0.	1.	2.	2.	1.	1.	3.	0.	0.	0.	3.	9.	7.62
VARIABLE													0.	0.00
CALM													0.	0.00
TOTAL	1.	4.	16.	34.	44.	48.	49.	34.	18.	12.	16.	76.	352.	8.93

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.00	0.00	0.14	0.00	0.05	0.05	0.00	0.05	0.00	0.05	0.09	0.42	8.06
NE	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05	0.05	0.18	0.32	11.50
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.14	0.18	12.10
E	0.00	0.00	0.00	0.05	0.05	0.05	0.32	0.18	0.00	0.00	0.00	0.00	0.65	6.44
ESE	0.00	0.00	0.00	0.00	0.05	0.05	0.32	0.09	0.00	0.05	0.00	0.14	1.01	7.06
SE	0.00	0.00	0.00	0.00	0.14	0.28	0.32	0.32	0.28	0.14	0.18	0.51	2.58	8.32
SSE	0.00	0.05	0.00	0.05	0.23	0.32	0.51	0.32	0.14	0.09	0.05	0.18	2.03	7.03
S	0.00	0.00	0.05	0.09	0.42	0.51	0.32	0.14	0.09	0.00	0.05	0.00	0.51	1.34	10.42
SSW	0.00	0.09	0.09	0.05	0.14	0.23	0.14	0.05	0.00	0.00	0.00	0.00	0.18	0.60	10.45
SW	0.00	0.00	0.00	0.05	0.09	0.09	0.14	0.00	0.05	0.00	0.00	0.00	0.18	0.42	11.50
WSW	0.00	0.00	0.00	0.14	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.65	6.41
W	0.00	0.00	0.23	0.09	0.09	0.00	0.09	0.00	0.00	0.00	0.09	0.05	0.05	0.69	6.57
WNW	0.00	0.00	0.14	0.14	0.28	0.05	0.00	0.00	0.00	0.00	0.00	0.09	0.69	1.94	10.89
NW	0.05	0.00	0.05	0.28	0.23	0.18	0.28	0.14	0.09	0.00	0.09	0.55	1.94	2.40	8.04
NNW	0.00	0.05	0.09	0.23	0.14	0.28	0.18	0.46	0.32	0.05	0.14	0.46	2.40	0.60	8.11
N	0.00	0.00	0.05	0.09	0.09	0.05	0.05	0.14	0.00	0.05	0.00	0.09	0.60	0.42	7.62
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.05	0.18	0.74	1.57	2.03	2.21	2.26	1.57	0.83	0.55	0.74	3.51	16.24	8.93

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2168

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
4TH QUARTER, 1982
DAMES AND MOORE JOB NO.- 00377-075-09
DATA PERIOD- 10/01/82 TO 12/31/82
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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	1.	8.	20.	8.	9.	9.	7.	6.	0.	3.	4.	71.	5.56
NE	0.	1.	2.	7.	7.	1.	0.	3.	5.	1.	3.	9.	39.	7.61
ENE	0.	2.	3.	9.	2.	2.	2.	1.	1.	0.	2.	3.	23.	6.60
E	0.	1.	2.	3.	9.	3.	0.	3.	0.	0.	0.	0.	17.	4.75
ESE	0.	0.	4.	0.	8.	1.	4.	1.	1.	0.	1.	0.	20.	5.24
SE	0.	2.	1.	4.	6.	4.	2.	0.	1.	0.	0.	1.	21.	4.93
SSE	0.	0.	3.	2.	1.	0.	2.	1.	0.	0.	0.	1.	10.	7.21
S	1.	0.	2.	2.	1.	0.	1.	1.	1.	0.	0.	5.	14.	9.72
SSW	0.	1.	0.	0.	0.	0.	1.	1.	0.	0.	0.	5.	8.	20.79
SW	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	3.	4.	13.23
WSW	0.	2.	1.	1.	1.	0.	1.	0.	0.	0.	0.	1.	7.	4.71
W	0.	2.	0.	1.	0.	1.	0.	0.	2.	0.	0.	4.	10.	10.98
WNW	0.	0.	0.	2.	1.	4.	3.	1.	1.	2.	0.	14.	28.	13.00
NW	0.	0.	0.	4.	0.	3.	6.	1.	3.	2.	1.	5.	25.	8.37
NNW	0.	0.	0.	1.	6.	4.	7.	1.	2.	2.	0.	3.	26.	7.27
N	0.	1.	6.	8.	9.	5.	9.	2.	1.	3.	1.	3.	44.	5.57
VARIABLE													0.	0.00
CALM													0.	0.00
TOTAL	1.	13.	32.	61.	99.	37.	39.	23.	24.	10.	11.	61.	367.	7.38

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.09	0.37	0.92	0.37	0.42	0.23	0.32	0.28	0.00	0.14	0.18	3.27	5.56
NE	0.00	0.09	0.09	0.32	0.32	0.09	0.00	0.14	0.23	0.05	0.14	0.42	1.80	7.61
ENE	0.00	0.09	0.14	0.23	0.09	0.09	0.09	0.05	0.05	0.00	0.09	0.14	1.06	6.60
E	0.00	0.09	0.09	0.14	0.23	0.14	0.00	0.14	0.00	0.00	0.00	0.00	0.78	4.75
ESE	0.00	0.00	0.18	0.00	0.37	0.09	0.18	0.09	0.05	0.00	0.00	0.05	0.92	5.24
SE	0.00	0.09	0.09	0.18	0.28	0.18	0.09	0.00	0.05	0.00	0.00	0.05	0.97	4.93
SSE	0.00	0.00	0.14	0.09	0.05	0.00	0.09	0.05	0.00	0.00	0.00	0.05	0.46	7.21
S	0.05	0.00	0.09	0.09	0.05	0.00	0.05	0.05	0.05	0.00	0.00	0.23	0.65	9.72
SSW	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.23	0.37	20.79
SW	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.18	13.23
WSW	0.00	0.09	0.05	0.05	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.32	4.71
W	0.00	0.09	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.09	0.00	0.18	0.46	10.98
WNW	0.00	0.00	0.00	0.09	0.05	0.18	0.14	0.05	0.05	0.09	0.00	0.65	1.29	13.00
NW	0.00	0.00	0.00	0.18	0.00	0.14	0.28	0.05	0.14	0.09	0.05	0.23	1.15	8.37
NNW	0.00	0.00	0.00	0.05	0.28	0.18	0.32	0.05	0.09	0.09	0.00	0.14	1.20	7.27
N	0.00	0.05	0.28	0.37	0.42	0.23	0.23	0.09	0.05	0.14	0.05	0.14	2.03	5.57
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.05	0.60	1.48	2.81	2.94	1.71	1.80	1.06	1.11	0.46	0.91	2.81	16.93	7.38

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2168

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
4TH QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-075-09
DATA PERIOD- 10/01/82 TO 12/31/82
STABILITY CLASS #G# (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	0.	8.	2.	10.	35.	54.	68.	94.	102.	91.	69.	527.	8.92
NE	0.	0.	2.	6.	6.	7.	0.	1.	1.	3.	0.	0.	26.	5.29
ENE	0.	0.	2.	0.	0.	0.	1.	0.	0.	0.	0.	0.	3.	3.90
E	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	3.50
ESE	0.	0.	0.	0.	1.	0.	1.	0.	0.	0.	0.	0.	2.	5.60
SE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
SSE	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.90
S	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	3.80
SSW	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.70
SW	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	1.	6.20
WSW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
W	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00
WNW	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.80
NW	0.	0.	0.	0.	0.	1.	1.	1.	0.	1.	0.	0.	4.	7.13
NNW	0.	0.	1.	0.	0.	0.	1.	0.	1.	0.	0.	0.	3.	5.63
N	0.	0.	0.	3.	1.	4.	6.	8.	13.	5.	1.	5.	46.	8.02
VARIABLE													0.	0.00
CALM													0.	0.00
TOTAL	0.	1.	9.	13.	18.	47.	69.	78.	109.	111.	92.	74.	617.	8.59

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.00	0.09	0.09	0.46	1.61	2.49	3.14	4.34	4.70	4.20	3.18	24.31	8.92
NE	0.00	0.00	0.09	0.28	0.28	0.32	0.00	0.05	0.05	0.14	0.00	0.00	1.20	5.29
ENE	0.00	0.00	0.09	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.14	3.90
E	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	3.50
ESE	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	5.60
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	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	1.90
S	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
SSW	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	2.70
SW	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	6.20
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	2.80
NW	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.00	0.05	0.00	0.00	0.18	7.13
NNW	0.00	0.00	0.05	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.14	5.63
N	0.00	0.00	0.00	0.14	0.05	0.18	0.28	0.37	0.60	0.23	0.05	0.23	2.12	8.02
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.00	0.05	0.42	0.60	0.83	2.17	3.00	3.60	5.03	5.12	4.24	3.41	28.46	8.59

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2168

Table 3B JFD's Fourth Quarter 1982

Stability Class G

SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
4TH QUARTER, 1982
DAMES AND MOORE JOB NO. - 00377-079-09
DATA PERIOD- 10/01/82 TO 12/31/82
STABILITY CLASS ALL (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) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.	9.	23.	49.	62.	96.	107.	97.	116.	107.	101.	69.	851.	7.83
NE	0.	1.	12.	23.	22.	13.	2.	9.	8.	6.	8.	31.	131.	8.04
ENE	0.	2.	8.	7.	4.	5.	5.	3.	1.	2.	3.	8.	48.	6.83
E	0.	3.	5.	9.	8.	6.	9.	7.	0.	0.	0.	0.	47.	4.96
ESE	0.	0.	7.	1.	14.	7.	12.	3.	1.	1.	1.	3.	50.	5.84
SE	0.	3.	1.	9.	12.	12.	13.	9.	8.	5.	4.	14.	86.	7.79
SSE	0.	1.	8.	4.	15.	15.	13.	8.	3.	1.	5.	5.	75.	6.75
S	1.	2.	5.	11.	10.	16.	9.	5.	7.	5.	1.	18.	88.	8.14
SSW	0.	1.	9.	11.	9.	13.	4.	2.	0.	0.	0.	10.	55.	8.37
SW	0.	0.	5.	14.	18.	7.	4.	0.	0.	0.	0.	7.	55.	6.18
WSW	0.	2.	9.	20.	33.	19.	16.	5.	1.	2.	1.	2.	110.	5.20
W	0.	2.	3.	11.	42.	38.	29.	15.	12.	2.	0.	6.	160.	6.28
WNW	1.	0.	2.	9.	11.	12.	30.	23.	11.	10.	5.	42.	156.	10.37
NW	0.	2.	2.	10.	5.	11.	14.	13.	11.	5.	4.	15.	92.	7.84
NNW	0.	0.	3.	3.	10.	6.	11.	4.	6.	4.	0.	7.	54.	7.76
N	0.	1.	8.	18.	16.	14.	18.	13.	18.	10.	5.	15.	136.	7.02
VARIABLE													0.	0.00
CALM													0.	0.00
TOTAL	2.	29.	103.	209.	291.	290.	296.	212.	203.	158.	138.	271.	2194.	7.39

WIND FREQUENCY DISTRIBUTION
(FREQUENCY IN PERCENT OF TOTAL)

WIND DIRECTION	UPPER CLASS INTERVALS OF WIND SPEED (MPH) 1	2	3	4	5	6	7	8	9	10	11	>11	TOTAL	MEAN SPEED
NNE	0.00	0.23	1.09	2.23	2.83	4.38	4.88	4.42	5.29	4.88	4.60	4.01	38.79	7.85
NE	0.00	0.05	0.59	1.05	1.00	0.59	0.09	0.23	0.36	0.27	0.36	1.41	5.97	8.04
ENE	0.00	0.09	0.36	0.32	0.18	0.23	0.23	0.14	0.05	0.09	0.14	0.36	2.19	6.83
E	0.00	0.14	0.23	0.41	0.36	0.27	0.41	0.32	0.00	0.00	0.00	0.00	2.14	4.96
ESE	0.00	0.00	0.32	0.05	0.64	0.32	0.55	0.14	0.05	0.05	0.05	0.14	2.28	5.84
SE	0.00	0.14	0.05	0.23	0.55	0.55	0.59	0.41	0.36	0.23	0.18	0.64	3.92	7.79
SSE	0.00	0.05	0.23	0.18	0.68	0.68	0.59	0.36	0.14	0.05	0.23	0.23	3.42	6.75
S	0.05	0.09	0.23	0.50	0.46	0.73	0.41	0.23	0.32	0.14	0.05	0.82	4.01	8.14
SSW	0.00	0.05	0.23	0.50	0.41	0.59	0.18	0.09	0.00	0.00	0.00	0.46	2.51	8.37
SW	0.00	0.00	0.23	0.64	0.82	0.32	0.18	0.00	0.00	0.00	0.00	0.32	2.51	6.18
WSW	0.00	0.09	0.41	0.91	1.50	0.87	0.73	0.23	0.05	0.09	0.05	0.09	5.01	5.20
W	0.00	0.09	0.14	0.50	1.91	1.73	1.32	0.68	0.55	0.09	0.00	0.27	7.29	6.28
WNW	0.05	0.00	0.09	0.41	0.50	0.55	1.37	1.05	0.50	0.46	0.23	1.91	7.11	10.37
NW	0.00	0.09	0.09	0.46	0.23	0.50	0.64	0.59	0.50	0.23	0.18	0.68	4.19	7.84
NNW	0.00	0.00	0.14	0.14	0.46	0.27	0.50	0.18	0.27	0.18	0.00	0.32	2.46	7.76
N	0.00	0.05	0.36	0.82	0.73	0.64	0.82	0.59	0.82	0.46	0.23	0.68	6.20	7.02
VARIABLE													0.00	0.00
CALM													0.00	0.00
TOTAL	0.09	1.14	4.69	9.34	13.26	13.22	13.49	9.66	9.25	7.20	6.29	12.35	100.00	7.35

TOTAL NUMBER OF POSSIBLE OBSERVATIONS - 2208
TOTAL NUMBER OF OBSERVATIONS WITH VALID SPEED, DIRECTION AND STABILITY - 2168

Table 3B JFD's Fourth Quarter 1982

Stability Class All

SECTION H. 10 CFR 50, APPENDIX I, CONSIDERATIONS

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

A submittal dated October 7, 1976, titled: Docket No. 50-206, Provisional Operating License No. DPR-13, Supplementary Information Concerning Compliance with 10 CFR 50 Appendix I; San Onofre Nuclear Generating Station Unit-1 lists releases and dose assessments for 1973, 1974, and 1975. This study proved that Appendix I criteria was met for the referenced 3 years. During the current period of July-December, 1982 releases were an order of magnitude less; therefore, it may be concluded that the current reporting period meets Appendix I constraints.

SECTION I. 40 CFR 190 CONSIDERATIONS

Current capabilities at Unit-1 do not allow for the direct determination (calculation) for 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 is reasonable to conclude 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 6.42 curies for gaseous effluent releases and 35.4 curies total for liquid releases. Gaseous effluents were primarily tritium (6.42 curies). Liquid effluent releases were also primarily tritium (35.4 curies).

  The operation of SONGS-1 resulted in radioactive releases which were below the Technical Specification Limits, 3.53E-4% for gaseous effluents and 5.05% for liquid effluents.

- Radwaste shipments totaled 35 shipments to Richland, Washington. There were 680 cubic meters of solid radwaste shipped containing 45 curies of radioactivity.

- Meteorological conditions during the semiannual period were typical of the meteorology at SONGS-1. Meteorological dispersion was good 31% of the time, fair 41% of the time and poor 28% 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 of the particulate activity has concentrated in marine life. 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 of these effluent releases analyses indicate that the operation of SONGS-1 should not have produced any detrimental effect on the environment.