

SEMI-ANNUAL RADIOACTIVE LIQUID

AND

GASEOUS RELEASE REPORT

DAVIS-BESSE NUCLEAR POWER STATION

UNIT 1

For the Period from

January 1, 1981 - June 30, 1981

Docket No. 50-346

License No. NPF-3

TOLEDO EDISON COMPANY

300 MADISON AVENUE

TOLEDO, OHIO 43652

August, 1981

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January 1, 1981 - June 30, 1981

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Facility: Davis-Besse Nuclear Power Station, Unit 1  
 Licensee: The Toledo Edison Company  
 Reporting Period: January 1, 1981 through June 30, 1981

## Supplemental Information:

1. Regulatory Limits

## Liquid and Gaseous Radioactive Effluent Limits

	LIQUID	GAS		
		NOBLE GAS	IODINES & PARTICULATES*	I-131
ANNUAL DESIGN OBJECTIVES	5 mrem/site 5 curies/reactor**	10 mrad ✓/site 20 mrad β/site	15 mrem/site	1 curie per reactor
CURIE LIMIT PER REACTOR	10/quarter** 20/12 consecutive months			2/quarter 4/12 consecutive mos.
CURIE LIMIT/TANK	10**	45000		
UNPLANNED OR UNCONTROLLED RELEASE REPORT-CURIES	0.5	5	0.02 (radio-nuclides)	
DOSE LIMIT*** PER SITE		500 mrem/yr. total body 3000 mrem/yr. skin 20 mrad ✓/qtr. 40 mrad β/qtr. 40 mrad ✓/12 cons. mos. 80 mrad β/12 cons. mos.	1500 mrem/yr. thyroid 30 mrem/qtr. 60 mrem/12 cons. mos.	
MICROCURIES PER MILLILITER LIMIT	10 CFR 20, App. B, Table II, Column 2			
ACTION LEVEL	2.5 curies/qtr.** per reactor	5 mrad ✓/qtr. 10 mrad β/qtr. per site	7.5 mrem/qtr. per site	0.5 curies/qtr. per reactor

\* With half-lives greater than 8 days.      \*\* Not including tritium & dissolved gases.

\*\*\* 500 mrem/yr., 1500 mrem/yr., and 3000 mrem/yr. limits are for instantaneous releases.

2. Maximum Permissible Concentrations - Limits used are specified in 10CFR20, Appendix B, Table II, Column 1 and 2.

3. Average Energy - Not applicable.



#### 4. Measurements and Approximations of Total Radioactivity

##### a. Fission and Activation Gases

1. These gases, excluding tritium, are collected in a Marinelli type beaker, specially modified for gas sampling, steel bombs, or glass vials and counted on a Ge(Li) detector for principal gamma emitters.
2. Tritium gas is collected using a bubble apparatus and counted by liquid scintillation.

##### b. Iodines - are collected on a charcoal cartridge filter, and counted on a Ge(Li) detector.

##### c. Particulates - are collected on filter paper and counted on a Ge(Li) detector.

##### d. Liquid Effluents - are collected in bottles and counted on a Ge(Li) detector.

#### 5. Batch Releases

##### a. Liquid

- |   |                     |
|---|---------------------|
| 1. Number of batch releases:                | 88                  |
| 2. Total time period for batch releases:    | 1.22 E + 03 Hours   |
| 3. Maximum time period for a batch release: | 1.01 E + 04 Minutes |
| 4. Average time period for batch releases:  | 8.33 E + 02 Minutes |
| 5. Minimum time period for a batch release: | 3.00 E + 01 Minutes |

##### b. Gaseous

- |   |                     |
|---|---------------------|
| 1. Number of batch releases:                | 7                   |
| 2. Number of containment purges:            | 5                   |
| 3. Number of waste gas decay tank releases: | 2                   |
| 4. Total time period for batch releases:    | 1.14 E + 02 Hours   |
| 5. Maximum time period for a batch release: | 3.01 E + 03 Minutes |
| 6. Average time period for batch releases:  | 9.77 E + 02 Minutes |
| 7. Minimum time period for a batch release: | 2.40 E + 02 Minutes |

#### 6. Abnormal Releases

None

7. Curies of Radionuclides and Offsite Doses to Humans Resulting from the Release of Radioactive Effluents at the Site Boundary

<u>Type of Activity</u>	<u>Limits From Environmental Technical Specifications</u>	<u>Percent of Limit</u>
a. Quarterly: Gaseous, 1st Quarter, 1981		
Noble gases (gamma)	20 mrad/qtr.	2.72 E-2
Noble gases (beta)	40 mrad/qtr.	3.42 E-1
Airborne radioiodines and particulates	30 mrem/qtr.	2.28 E-1
Iodine-131	2 Ci/qtr.	3.29 E-1
b. Quarterly: Gaseous, 2nd Quarter, 1981		
Noble gases (gamma)	20 mrad/qtr.	3.12 E-2
Noble gases (beta)	40 mrad/qtr.	4.18 E-1
Airborne radioiodines and particulates	30 mrem/qtr.	8.84 E-1
Iodine-131	2 Ci/qtr.	1.75 E 00
c. 12 Consecutive Months: Gaseous,		
Noble gases (gamma)	40 mrad/12 mo.,	1.41 E-2
Noble gases (beta)	80 mrad/12 mo.,	1.79 E-1
Airborne radioiodines and particulates	60 mrem/12 mo.	2.67 E-2
Iodine-131	4 Ci/12 mo.	3.63 E 00
d. Quarterly: Liquid, 1st Quarter, 1981		
Liquid (excluding tritium and dissolved gases)	10 Ci/qtr.	4.17 E-1
e. Quarterly: Liquid, 2nd Quarter, 1981		
Liquid (excluding tritium and dissolved gases)	10 Ci/qtr.	6.85 E 00

<u>Type of Activity</u>	<u>Limits from Environmental Technical Specifications</u>	<u>Percent of Limit</u>
f. 12 Consecutive Months: Liquid, 1981		
Liquid (excluding tritium and dissolved gases)	20 Ci/12 mo.	3.63 E 00

#### 8. Dose Assessment

The following is a list of the sources of input data.

- a. 0-50 mile meat, milk and vegetable production, water usage information; location of the nearest individuals and pathways by sector out to 5 miles - source:  
Appendix I analysis, NRC Docket No. 50-346, Evaluation of Compliance with Appendix I to 10 CFR 50, June 4, 1976, Davis-Besse Nuclear Power Station Unit No. 1.
- b. 1980 population within 50 miles of the plant site - source:  
Davis-Besse Units 2 and 3 PSAR, Figure 2.1-6.
- c. Gaseous and liquid source terms - sources: Tables 1A, 1C, 2A, and 2B.

Tables 8 and 10 present the maximum doses computed from the noble gas effluents for each quarter. Tables 9 and 11 present doses resulting from gaseous iodine and particulate effluents. Doses resulting from liquid iodine and particulates are presented in Table 12 and 13.

TABLE 1A

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EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1981)  
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	UNIT	1ST QUARTER	2ND QUARTER	EST. TOTAL ERROR, %
<b>A. FISSION &amp; ACTIVATION GASES</b>				
1. TOTAL RELEASE	CI	2.25E+02	2.86E+02	2.00 E + 01
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	2.89E+01	3.64E+01	
*3. PERCENT OF TECHNICAL SPECIFICATION LIMIT	%	3.42 E -01	4.18 E - 01	
<b>B. IODINES</b>				
1. IODINE - 131	CI	6.58E-03	3.49E-02	2.00 E + 01
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	8.47E-04	4.44E-03	
**3. PERCENT OF TECHNICAL SPECIFICATION LIMIT	%	3.29E-01	1.75E+00	
<b>C. PARTICULATES</b>				
1. PARTICULATES WITH HALF-LIVES > 8 DAYS	CI	2.96E-03	8.27E-04	2.00 E + 01
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	3.72E-04	1.04E-04	
***3. PERCENT OF TECHNICAL SPECIFICATION LIMIT	%	2.28 E-01	8.84 E-01	
4. GROSS ALPHA RADIO- ACTIVITY	CI	1.12E-05	5.46E-06	
<b>D. TRITIUM</b>				
1. TOTAL RELEASE	CI	2.25E+00	1.46E+00	2.00 E + 01
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	2.89E-01	1.86E-01	
****3. PERCENT OF TECHNICAL SPECIFICATION LIMIT	%	6.02E-04	3.87E-04	

\* BASED ON ENVIRONMENTAL TECHNICAL SPECIFICATION (ETS) 2.4.3.B(1) FOR QUARTERLY BETA FRACTION DOSE FROM NOBLE GASES.

\*\* BASED ON ETS 2.4.3.B(5) FOR THE QUARTERLY DOSE FROM I-131; 2 CI PER CALENDAR QUARTER.

\*\*\* BASED ON ETS 2.4.3.B(3) FOR THE QUARTERLY DOSE FROM ALL RADIOIODINES AND RADIOACTIVE MATERIALS IN PARTICULATE FORM WITH HALF-LIVES GREATER THAN EIGHT DAYS.

\*\*\*\* BASED ON 10CFR20, APPENDIX B, TABLE II, COLUMN 1 USING  $2 \text{ E-7 UCI/CC}$  FOR HYDROGEN-3 AND ANNUAL AVERAGE X/Q OF  $4.17 \text{ E-6 SEC/CU.M}$  FROM THE FSAR.

TABLE 1B  
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1981 )

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GASEOUS EFFLUENTS—ELEVATED RELEASE \*

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		Quarter	Quarter	Quarter	Quarter

1. Fission gases

krypton-85	Ci	. E	. E	. E	. E
krypton-85m	Ci	. E	. E	. E	. E
krypton-87	Ci	. E	. E	. E	. E
krypton-88	Ci	. E	. E	. E	. E
xenon-133	Ci	. E	. E	. E	. E
xenon-135	Ci	. E	. E	. E	. E
xenon-135m	Ci	. E	. E	. E	. E
xenon-138	Ci	. E	. E	. E	. E
Others (specify)	Ci	. E	. E	. E	. E
	Ci	. E	. E	. E	. E
	Ci	. E	. E	. E	. E
unidentified	Ci	. E	. E	. E	. E
Total for period	Ci	. E	. E	. E	. E

2. Iodines

iodine-131	Ci	. E	. E	. E	. E
iodine-133	Ci	. E	. E	. E	. E
iodine-135	Ci	. E	. E	. E	. E
Total for period	Ci	. E	. E	. E	. E

3. Particulates

strontium-89	Ci	. E	. E	. E	. E
strontium-90	Ci	. E	. E	. E	. E
cesium-134	Ci	. E	. E	. E	. E
cesium-137	Ci	. E	. E	. E	. E
barium-lanthanum-140	Ci	. E	. E	. E	. E
Others (specify)	Ci	. E	. E	. E	. E
	Ci	. E	. E	. E	. E
	Ci	. E	. E	. E	. E
unidentified	Ci	. E	. E	. E	. E

\* Not applicable; all releases are classified as mixed mode releases.

TABLE 1C

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1981)  
 GASEOUS EFFLUENTS MIXED-MODE RELEASES

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		1ST QUARTER	2ND QUARTER	1ST QUARTER	2ND QUARTER
-----					
1. FISSION GASES					
KR85M	CI	1.17E+00	3.65E-01	3.26E-03	1.36E-02
KR-85	CI	0.00E-01	0.00E-01	0.00E-01	1.24E+00
XE131M	CI	0.00E-01	0.00E-01	0.00E-01	1.03E+00
XE133M	CI	0.00E-01	0.00E-01	0.00E-01	1.15E+00
XE-133	CI	1.64E+02	8.75E+01	4.99E+01	1.94E+02
XE135M	CI	0.00E-01	0.00E-01	3.53E-01	0.00E-01
XE-135	CI	8.89E+00	1.08E+00	3.39E-01	5.07E-01
TOTAL FOR PERIOD	CI	1.74E+02	8.89E+01	5.06E+01	1.97E+02
2. IODINES					
I-131	CI	6.24E-03	3.49E-02	0.00 E-01	0.00E-01
I-133	CI	2.96E-03	8.05E-04	0.00 E-01	0.00E-01
TOTAL FOR PERIOD	CI	9.20E-03	3.57E-02	3.74E-04	0.00E-01
3. PARTICULATES					
H-3	CI	2.23E+00	1.39E+00	1.73E-02	7.22E-02
SR-89	CI	8.40E-06	2.17E-05	0.00E-01	0.00E-01
CS-137	CI	0.00E-01	2.97E-13	0.00E-01	0.00E-01
TOTAL FOR PERIOD	CI	2.23E+00	1.39E+00	1.73E-02	7.22E-02



TABLE 2A

## EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT (1981)

## LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	<u>UNIT</u>	<u>1st QUARTER</u>	<u>2nd QUARTER</u>	<u>EST. TOTAL ERROR, %</u>
A. FISSION & ACTIVATION PRODUCTS				
1. Total release (without tritium, gases, alpha)	CI	4.17E-02	6.95E-01	2.00 E + 01
2. Average diluted concentration during period	UCI/ML	8.32E-08	7.87E-08	
3. Percent of Technical Spec. Limit, 10 CI	%	4.17E-01	6.85E+00	
*4. Percent of 10 CFR 20 Limit	%	6.41E+00	8.69E+00	
B. TRITIUM				
1. Total Release	CI	2.69E+01	4.73E+01	2.00 E + 01
2. Average diluted concentration during period	UCI/ML	5.40E-05	5.42E-06	
*3. Percent of 10 CFR 20 Limit	%	1.80E+00	1.81E-01	
C. DISSOLVED & ENTRAINED GASES				
1. Total Release	CI	0.00E-01	2.54E-04	2.00 E + 01
2. Average diluted concentration during period	UCI/ML	0.00E-01	4.92E-11	
*3. Percent of 4 E-5 UCI/CC Limit	%	0.00E-01	7.31E-05	
D. GROSS ALPHA RADIOACTIVITY				
1. Total Release	CI	0.00E-01	0.00E-01	2.00 E + 01
E. VOLUME OF WASTE RELEASED				
(Prior to Dilution)	LITERS	1.11E+06	1.22E+08	2.00 E + 01
F. VOLUME OF DILUTION WATER				
1. During the time of releases	LITERS	5.01E+08	8.70E+09	2.00 E + 01
2. Total dilution	LITERS	8.37E+09	1.84E+10	

\*Based on dilution during the time of releases only.



TABLE 2B

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EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1981)  
LIQUID EFFLUENTS

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE*		BATCH MODE	
		1ST QUARTER	2ND QUARTER	1ST QUARTER	2ND QUARTER
CR-51	CI			5.85E-04	1.09E-04
MN-54	CI			1.08E-03	1.14E-03
FE-59	CI			0.00E-01	5.27E-05
CO-58	CI			1.09E-02	3.07E-01
CO-60	CI			5.19E-03	4.46E-03
SR-89	CI			1.67E-06	5.26E-04
Y91M	GI			0.00E-01	3.51E-05
ZR-97	CI			5.40E-05	0.00E-01
NB-95	CI			0.00E-01	5.06E-05
NB-97	CI			3.92E-04	0.00E-01
MO-99	CI			0.00E-01	1.42E-04
TC99M	CI			5.12E-05	1.89E-04
AG110M	CI			3.57E-04	2.36E-04
I-131	CI			9.14E-03	2.21E-01
I-133	CI			1.43E-04	5.18E-04
CS-134	CI			4.12E-03	4.86E-02
CS-136	CI			7.06E-05	2.80E-04
CS-137	CI			9.58E-03	1.01E-01
TOTAL FOR PERIOD ABOVE	CI			4.17E-02	6.85E-01

\* NOT APPLICABLE; ALL RADIOACTIVE LIQUID EFFLUENTS ARE RELEASED BY BATCH MODE.

TABLE 3A

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT ( 1981 )  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

## A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not irradiated fuel)

1. Type of waste	Unit		Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m <sup>3</sup> Ci	1.27E+02 6.07E+00	1.00E+01
b. Dry compressible waste, contaminated equip, etc.	m <sup>3</sup> Ci	7.48E+01 9.55E+00	1.00E+01
c. Irradiated components, control rods, etc.	m <sup>3</sup> Ci	None	NA
d. Other (describe)	m <sup>3</sup> Ci	None	NA

## 2. Estimate of major nuclide composition (by type of waste)

a.	Cs-137	%	5.04E+01
	Cs-134	%	1.92E+01
	Co-58	%	1.65E+01
b.	Co-58	%	6.22E+01
	Cs-137	%	1.53E+01
	Mn-54	%	1.04E+01
c.	NA	%	
		%	
		%	
d.	NA	%	
		%	
		%	

## 3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
18	Truck	Barnwell, South Carolina

## B. IRRADIATED FUEL SHIPMENTS (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
None	NA	NA

## DAVIS - BESSE

## UNIT 1

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TABLE 1

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: A

ELEVATION: 35 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	1	0	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	1	0	0	1
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	2	0	2
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	1	0	1	2	0	4

PERIODS OF CALM (HOURS): 0

DAVIS - BESSE  
UNIT 1

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TABLE 1

JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS

35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: B

ELEVATION: 35 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	1	0	0	0	1
SW	0	0	0	0	0	0	0
WSW	0	0	0	1	0	0	1
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	3	0	3
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	1	1	3	0	5

PERIODS OF CALM (HOURS): 0

DAVIS - BESSE  
UNIT 1

TABLE 1  
JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: C

ELEVATION: 35 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	2	0	0	2
ENE	0	0	0	1	0	0	1
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	1	0	0	1
S	0	0	1	1	0	0	2
SSW	0	0	3	2	0	0	5
SW	0	0	2	3	0	0	5
WSW	0	0	2	1	1	0	4
W	0	0	1	2	0	0	3
WNW	0	0	0	0	0	0	0
NW	0	0	1	0	0	0	1
NNW	0	0	1	2	2	0	5
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	12	15	3	0	30

PERIODS OF CALM (HOURS): 0

DAVIS - BESSE  
UNIT 1

TABLE 1  
JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: D

ELEVATION: 35 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	5	8	19	9	5	3	49
NNE	0	11	18	6	2	1	38
NE	1	5	12	12	0	0	30
ENE	1	3	8	5	0	0	17
E	1	2	6	1	0	0	10
ESE	0	4	4	1	0	0	9
SE	0	3	4	0	0	0	7
SSE	0	2	4	3	1	0	10
S	0	5	9	15	0	0	29
SSW	0	15	50	24	4	0	93
SW	0	6	19	26	9	9	69
WSW	2	10	34	64	43	15	168
W	0	4	21	27	15	7	74
WNW	0	3	30	28	9	1	71
NW	0	8	34	47	2	1	92
NNW	1	4	27	35	8	0	75
VARIABLE	0	0	0	0	0	0	0
TOTAL	11	93	299	303	98	37	841

PERIODS OF CALM (HOURS): 0

## DAVIS - BESSE

## UNIT 1

## TABLE 1

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: E

ELEVATION: 35 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	6	4	7	0	0	0	17
NNE	0	3	7	4	0	0	14
NE	1	1	19	9	0	0	30
ENE	1	8	8	0	0	0	17
E	1	10	5	1	0	0	17
ESE	0	11	7	2	0	0	20
SE	1	4	8	3	0	0	16
SSE	5	2	12	2	2	0	23
S	3	22	12	4	1	0	42
SEN	4	25	36	20	0	0	85
SW	3	19	41	38	0	0	101
WSW	4	21	51	60	12	1	149
W	1	20	27	17	0	0	65
WNW	4	18	35	13	1	1	72
NW	1	12	19	17	0	0	49
NNW	2	11	10	7	1	0	31
VARIABLE	0	0	0	0	0	0	0
TOTAL	37	191	304	197	17	2	748

PERIODS OF CALM (HOURS): 0



## DAVIS - BESSE

## UNIT 1

TABLE 1

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS

35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: F

ELEVATION: 35 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	1	0	0	0	0	0	1
NNE	0	1	0	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	2	1	0	0	0	3
ESE	0	6	5	1	0	0	12
SE	2	2	3	0	0	0	7
SSE	1	4	4	0	0	0	9
S	2	71	3	0	0	0	76
SSW	10	20	8	0	0	0	38
SW	8	19	19	0	0	0	46
WSW	1	7	18	1	0	0	27
W	0	3	4	0	0	0	7
WNW	0	2	4	0	0	0	6
NW	0	0	6	0	0	0	6
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	25	137	76	2	0	0	239

PERIODS OF CALM (HOURS): 0

DAVIS - BESSE  
UNIT 1

TABLE 1

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: G

ELEVATION: 35 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	1	0	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	2	0	0	0	2
SE	0	2	0	0	0	0	2
SSE	1	1	0	0	0	0	2
S	1	6	0	0	0	0	7
SSW	2	4	0	0	0	0	6
SW	4	7	0	0	0	0	11
WSW	0	11	13	0	0	0	24
W	0	3	2	0	0	0	5
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	8	35	17	0	0	0	60

PERIODS OF CALM (HOURS): 0

DAVIS - BESSE  
UNIT 1

TABLE 1

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS

35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: TOTAL

ELEVATION: 35 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	12	12	26	9	5	3	67
NNE	0	15	25	10	2	1	53
NE	2	5	31	23	0	0	62
ENE	2	12	16	6	0	0	36
E	2	14	13	2	0	0	31
ESE	0	21	18	4	0	0	43
SE	3	11	15	3	0	0	32
SSE	7	10	20	6	3	0	46
S	6	104	25	20	1	0	156
SSW	16	64	98	47	4	0	229
SW	15	51	81	67	9	9	232
WSW	7	49	118	127	56	16	373
W	1	30	55	46	17	7	156
WNW	4	23	69	41	10	2	149
NW	1	20	60	64	5	1	151
NNW	3	15	38	44	11	0	111
VARIABLE	0	0	0	0	0	0	0
TOTAL	81	457	708	319	123	39	1927

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 59

## DAVIS - BESSE

## UNIT 1

## TABLE 2

## JOINT FREQUENCY DISTRIBUTION

## WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS

## 250-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: A

ELEVATION: 250 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	0	0	0	0	0	0	0
NNE	0	0	1	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	0	1	0	1
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	1	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	2	0	2	0	4

PERIODS OF CALM (HOURS): 0

DAVIS - DESSE  
UNIT 1

TABLE 2

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
250-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: B

ELEVATION: 250 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	1	0	1
WSW	0	0	0	0	0	0	0
W	0	0	0	1	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	2	1	3
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	0	1	3	1	5

PERIODS OF CALM (HOURS): 0

DAVIS - BESSE  
UNIT 1

TABLE 2

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
250-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: C

ELEVATION: 250 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	0	0	0	0	2	0	2
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	1	1	0	2
E	0	0	1	1	0	0	2
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	1	1
SSW	0	0	1	3	1	1	6
SW	0	0	0	5	1	0	6
WSW	0	0	0	0	0	0	0
W	0	0	0	3	2	1	6
WNW	0	0	0	1	0	0	1
NW	0	0	0	0	0	0	0
NNW	0	0	2	0	1	1	4
VARIABLE	0	0	0	0	0	0	0
TOTAL	0	0	4	14	8	4	30

PERIODS OF CALM (HOURS): 0

DAVIS - RESSE  
UNIT 1

TABLE 2

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
250-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: D

ELEVATION: 250 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	1	6	19	17	11	5	59
NNE	1	7	10	10	1	8	37
NE	0	6	14	18	0	0	38
ENE	2	2	9	8	1	0	22
E	0	1	2	5	0	0	8
ESE	0	2	5	1	1	0	9
SE	0	1	6	0	1	0	8
SSE	0	1	7	0	1	0	9
S	0	1	3	6	6	4	20
SSW	0	3	12	27	21	10	73
SW	0	6	8	19	26	10	69
WSW	0	4	12	30	35	32	113
W	1	1	22	36	28	34	122
WNW	1	0	10	26	17	10	64
NW	0	4	18	41	23	4	90
NNW	0	5	14	36	35	8	98
VARIABLE	2	0	0	0	0	0	2
TOTAL	8	50	171	280	207	125	841

PERIODS OF CALM (HOURS): 0



DAVIS - BESSE  
UNIT 1

TABLE 2

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS

250-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: E

ELEVATION: 250 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	1	4	8	4	5	1	23
NNE	0	4	4	4	0	0	12
NE	0	2	8	14	0	0	24
ENE	1	5	6	11	0	0	23
E	0	3	4	2	0	0	9
ESE	0	6	12	2	1	2	23
SE	0	0	6	9	2	0	17
SSE	0	1	0	7	7	2	17
S	1	3	5	4	12	4	29
SSW	0	4	7	35	13	13	72
SW	1	0	6	26	37	3	73
WSW	0	3	5	48	56	17	129
W	0	4	17	40	32	6	99
WNW	1	6	18	24	6	1	56
NW	1	8	20	33	25	0	87
NNW	0	9	8	12	18	5	52
VARIABLE	3	0	0	0	0	0	3
TOTAL	9	62	134	275	214	54	748

PERIODS OF CALM (HOURS): 0

DAVIS - BESSE  
UNIT 1

Page 24

TABLE 2

JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
250-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: F

ELEVATION: 250 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	1	0	0	0	0	0	1
NNE	0	0	0	0	0	0	0
NE	1	0	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	1	0	0	0	1
SE	0	2	1	5	5	0	13
SSE	2	0	4	1	3	0	10
S	0	2	3	2	6	1	14
SSW	0	2	3	14	8	2	29
SW	0	1	59	12	3	2	77
WSW	0	1	7	19	8	0	35
W	1	2	3	6	15	0	27
WNW	0	0	3	8	2	0	13
NW	0	1	1	6	5	0	13
NNW	0	1	0	0	4	0	7
VARIABLE	0	0	0	0	0	0	0
TOTAL	5	12	85	73	59	5	239

PERIODS OF CALM (HOURS): 0

DAVIS - BESSE  
UNIT 1

TABLE 2

JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
250-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: G

ELEVATION: 250 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	1	0	1
SSE	0	1	1	0	1	0	3
S	0	1	0	2	0	0	3
SSW	0	0	1	3	2	0	6
SW	1	1	2	0	0	0	4
WSW	0	2	1	4	0	0	7
W	0	1	0	5	6	1	13
WNW	1	0	2	7	5	0	15
NW	1	0	0	4	2	0	7
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0
TOTAL	3	6	8	25	17	1	60

PERIODS OF CALM (HOURS): 0

DATA - MESSAGE  
UNIT 1

TABLE 2

JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERIC STABILITY CLASS  
250-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 1/01/81 TO 3/31/81

STABILITY CLASS: TOTAL

ELEVATION: 250 FEET

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	0.7- 3.4	3.5- 7.4	7.5- 12.4	12.5- 18.4	18.5- 24.4	>24.4	
N	3	10	27	21	18	6	85
NNE	1	11	15	14	1	8	50
NE	1	8	22	32	0	0	63
ENE	3	7	15	20	2	0	47
E	0	4	8	8	0	0	20
ESE	0	8	18	3	2	2	33
SE	0	3	13	14	9	0	39
SSE	2	3	13	8	12	2	40
S	1	7	11	14	24	10	67
SSW	0	9	24	82	46	26	187
SW	2	8	75	62	68	15	230
WSW	0	10	25	101	99	49	284
W	2	8	42	91	84	42	269
WNW	3	6	33	66	30	11	149
NW	2	13	39	84	55	4	177
NNW	0	15	24	48	60	15	162
VARIABLE	5	0	0	0	0	0	5
TOTAL	25	130	404	668	510	190	1927

PERIODS OF CALM (HOURS): 0

HOURS OF MISSING DATA: 59

## UNIT 1

## TABLE 3

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: A

ELEVATION: 35 ft.

Wind Direction	Wind Speed (mph) at 35 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	2	0	0	2
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	1	0	0	0	0	1
SV	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	1	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	2	0	0	0	2
VARIABLE	0	0	0	0	0	0	0

Total:      0          1          3          3          0          0          7

Period of Calm (hours): 0



## UNIT 1

## TABLE 3

## JOINT FREQUENCY DISTRIBUTION

## WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

## 35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: B

ELEVATION: 35 ft.

Wind Direction	Wind Speed (mph) at 35 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	1	0	1
NE	0	0	0	0	1	0	1
ENE	0	0	1	2	0	0	3
E	0	0	1	2	0	0	3
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	1	1	0	0	2
WSW	0	1	0	1	0	0	2
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	2	2	0	0	4
VARIABLE	0	0	0	0	0	0	0

Total:            0            1            5            8            2            0            16

Period of Calm (hours): 0

## UNIT 1

## TABLE 3

## JOINT FREQUENCY DISTRIBUTION

## WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

## 35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: C

ELEVATION: 35 ft.

Wind Direction	Wind Speed (mph) at 35 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	0	6	2	0	0	0	8
NNE	0	2	2	2	5	2	13
NE	0	0	0	1	0	0	1
ENE	0	0	1	1	0	0	2
E	0	0	4	3	0	0	7
ESE	0	0	1	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	0	3	1	0	0	4
SSW	0	0	3	5	0	0	8
SW	0	0	5	0	0	0	5
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	1	1	0	0	2
NW	0	0	7	4	2	0	13
NNW	0	0	4	3	0	0	7
VARIABLE	0	0	0	0	0	0	0

Total:	0	8	34	21	7	2	72
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Period of Calm (hours): 0



## UNIT 1

TABLE 3

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: D

ELEVATION: 35 ft.

Wind Direction	Wind Speed (mph) at 35 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	1	8	25	15	0	1	50
NNE	0	17	30	29	17	3	96
NE	1	12	33	60	12	0	118
ENE	0	17	43	6	10	0	76
E	3	23	66	15	2	0	109
ESE	0	15	29	1	0	0	45
SE	1	14	14	1	0	0	30
SSE	1	15	10	1	0	0	27
S	1	15	23	0	0	0	39
SSW	0	18	47	19	8	2	94
SW	1	10	53	44	9	5	122
WSW	1	12	53	31	9	8	114
W	1	7	21	22	8	5	64
WNW	1	10	26	29	20	2	88
NW	1	5	14	35	8	2	65
NNW	0	3	23	13	0	0	39
VARIABLE	0	0	0	0	0	0	0

Total: 13 201 510 321 103 28 1176

Period of Calm (hours): 0

## UNIT 1

TABLE 3  
JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS  
35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: E

ELEVATION: 35 ft.

Wind Direction	Wind Speed (mph) at 35 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	3	0	2	0	6	0	11
NNE	0	2	2	1	0	0	5
NE	0	1	0	1	0	0	2
ENE	0	12	9	0	0	0	21
E	3	3	15	0	0	0	21
ESE	0	12	17	0	0	0	29
SE	2	16	4	1	0	0	23
SSE	6	37	6	3	0	0	52
S	8	39	9	3	0	0	59
SSW	7	46	45	22	14	1	135
SW	2	34	33	14	4	0	87
WSW	2	19	25	2	2	0	50
W	4	11	13	5	3	0	36
WNW	0	4	14	3	0	0	21
NW	1	3	6	11	0	0	21
NNW	0	4	9	2	1	0	16
VARIABLE	0	0	0	0	0	0	0

Total: 38 243 209 68 30 1 589

Period of Calm (hours): 2

## UNIT 1

TABLE 3

## JOINT FREQUENCY DISTRIBUTION

WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: F

ELEVATION: 35 ft.

Wind Direction	Wind Speed (mph) at 35 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	1	0	0	0	0	0	1
NNE	0	1	0	0	0	0	1
NE	0	1	0	0	0	0	1
ENE	1	1	0	0	0	0	2
E	0	5	1	0	0	0	6
ESE	0	4	4	0	0	0	8
SE	2	6	0	3	0	0	11
SSE	3	21	1	0	0	0	25
S	2	31	4	0	0	0	37
SSW	3	34	0	0	0	0	37
SW	2	22	0	0	0	0	24
WSW	2	14	2	0	0	0	18
W	1	4	6	0	0	0	11
WNW	0	2	2	0	0	0	4
NW	0	1	0	0	0	0	1
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0

Total: 17 147 20 3 0 0 187

Period of Calm (hours): 0

## UNIT 1

## TABLE 3

## JOINT FREQUENCY DISTRIBUTION

## WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

## 35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: G

ELEVATION: 35 ft.

Wind Direction	Wind Speed (mph) at 35 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	1	0	0	0	0	1
ESE	0	1	1	0	0	0	2
SE	0	1	0	0	0	0	1
SSE	1	8	0	0	0	0	9
S	1	15	0	0	0	0	16
SSW	0	12	0	0	0	0	12
SW	0	7	0	0	0	0	7
WSW	0	2	1	0	0	0	3
W	0	1	0	0	0	0	1
WNW	0	1	1	0	0	0	2
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0

Total: 2 49 3 0 0 0 54

Period of Calm (hours): 0



## UNIT 1

TABLE 3  
JOINT FREQUENCY DISTRIBUTION  
WIND SPED AND DIRECTION BY ATMOSPHERE STABILITY CLASS  
35-FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: TOTAL

ELEVATION: 35 ft.

Wind Direction	Wind Speed (mph) at 35 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	5	16	27	15	6	1	70
NNE	0	22	34	32	23	5	116
NE	1	14	33	62	13	0	123
ENE	1	30	54	11	10	0	106
E	6	32	87	20	2	0	147
ESE	0	32	52	1	0	0	85
SE	5	37	18	5	0	0	65
SSE	11	81	19	4	0	0	115
S	12	100	39	4	0	0	155
SSW	10	111	95	46	22	3	287
SW	5	73	92	59	13	5	247
WSW	5	48	81	34	11	8	187
W	6	23	40	28	11	5	113
WNW	1	17	44	33	20	2	117
NW	2	9	27	50	10	2	100
NNW	0	7	40	20	1	0	68
VARIABLE	0	0	0	0	0	0	0

Total: 70 652 782 425 142 31 2101

Period of Calm (hours): 2

Hours of Missing Data: 81

## UNIT 1

TABLE 4  
JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS  
250 -FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: A

ELEVATION: 250 ft.

Wind Direction	Wind Speed (mph) at 250 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	2	0	0	2
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	1	0	1
SSW	0	0	0	0	0	0	0
SW	0	0	1	0	0	0	1
WSW	0	0	0	0	0	0	0
W	0	0	1	0	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	2	0	0	2
VARIABLE	0	0	0	0	0	0	0

Total: 0 0 2 4 1 0 7

Period of Calm (hours): 0



TABLE 4  
JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS  
250 -FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: B

ELEVATION: 250 ft.

Wind Direction	Wind Speed (mph) at 250 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	>24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	1	1
NE	0	0	0	0	0	1	1
ENE	0	0	1	0	0	0	1
E	0	0	0	5	0	0	5
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	3	0	0	3
W	0	1	0	0	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	4	0	0	4
VARIABLE	0	0	0	0	0	0	0

Total: 0 1 1 12 0 2 16

Period of Calm (hours): 0

TABLE 4  
JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS  
250 -FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: C

ELEVATION: 250 ft.

Wind Direction	Wind Speed (mph) at 250 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	0	2	3	3	0	1	9
NNE	0	4	2	0	4	3	13
NE	0	0	0	1	0	0	1
ENE	0	0	0	0	0	0	0
E	0	0	1	5	1	0	7
ESE	0	0	1	3	0	0	4
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	1	0	0	1
SSW	0	0	2	1	4	2	9
SW	0	0	5	1	0	1	7
WSW	0	0	0	1	0	0	1
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	4	1	0	5
NNW	0	0	13	1	1	0	15
VARIABLE	0	0	0	0	0	0	0

Total: 0 6 27 21 11 7 72

Period of Calm (hours): 0

TABLE 4  
JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS  
250 -FT WINDS AND DELTA TEMPERATURE (>50FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: D

ELEVATION: 250 ft.

Wind Direction	Wind Speed (mph) at 250 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18	18.5 - 24.4	≥ 24.4	
N	0	7	18	15	9	1	50
NNE	0	13	25	25	12	12	87
NE	1	14	20	48	17	2	102
ENE	1	11	36	39	17	11	115
E	2	12	59	19	9	8	109
ESE	2	11	17	24	5	0	59
SE	2	6	16	6	1	0	31
SSE	1	1	4	6	0	0	12
S	1	7	26	7	5	0	46
SSW	1	3	22	25	9	3	63
SW	1	0	24	43	21	27	116
WSW	0	7	35	36	25	14	117
W	0	4	14	27	10	7	62
WNW	2	2	12	19	18	19	72
NW	0	4	11	25	17	20	77
NNW	0	1	14	21	18	4	58
VARIABLE	0	0	0	0	0	0	0

Total: 14 103 353 385 193 128 1176

Period of Calm (hours): 0

TABLE 4  
JOINT FREQUENCY DISTRIBUTION  
WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS  
250 -FT WINDS AND DELTA TEMPERATURE (250FT-35FT)  
CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: E

ELEVATION: 250 ft.

Wind Direction	Wind Speed (mph) at 250 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	1	1	2	1	0	0	5
NNE	0	1	0	0	0	0	1
NE	0	1	3	0	0	0	4
ENE	1	2	6	1	1	6	17
E	0	1	12	5	1	1	20
ESE	0	5	12	18	0	0	35
SE	1	5	10	17	0	0	33
SSE	1	3	7	13	4	0	28
S	1	5	9	33	4	1	53
SSW	1	4	9	33	20	23	90
SW	1	5	19	43	29	14	111
WSW	0	2	10	31	9	5	57
W	0	5	9	19	5	5	43
WNW	0	6	11	19		0	42
NW	0	0		7	13	0	22
NNW	0	0	8	11	8	1	28
VARIABLE	0	0	0	0	0	0	0

Total: 7 46 129 251 100 56 589

Period of Calm (hours): 1



## U N I T 1

## TABLE 4

## JOINT FREQUENCY DISTRIBUTION

## WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

## 250 -FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: F

ELEVATION: 250 ft.

Wind Direction	Wind Speed (mph) at 250 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	1	2	1	0	0	4
SE	0	4	3	3	1	0	11
SSE	0	1	5	10	3	0	19
S	0	5	0	15	9	0	29
SSW	0	2	5	17	8	1	33
SW	0	8	11	11	2	0	32
WSW	0	3	5	12	2	0	22
W	1	2	3	4	1	0	11
WNW	0	1	4	7	5	0	17
NW	1	0	1	4	0	0	6
NNW	0	0	2	1	0	0	3
VARIABLE	0	0	0	0	0	0	0

Total:	2	27	41	85	31	1	187
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Period of Calm (hours): 0

## UNIT 1

## TABLE 4

## JOINT FREQUENCY DISTRIBUTION

## WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

## 250 -FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: G

ELEVATION: 250 ft.

Wind Direction	Wind Speed (mph) at 250 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	1	2	0	0	3
SSE	0	0	1	3	0	0	4
S	0	0	0	5	2	0	7
SSW	0	1	1	6	5	0	13
SW	0	0	3	6	1	0	10
WSW	0	1	1	4	1	0	7
W	0	0	1	2	1	0	4
WNW	0	0	0	4	0	0	4
NW	0	0	0	1	1	0	2
NNW	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0

Total: 0 2 8 33 11 0 54

Period of Calm (hours): 0



## UNIT 1

## TABLE 4

## JOINT FREQUENCY DISTRIBUTION

## WIND SPEED AND DIRECTION BY ATMOSPHERE STABILITY CLASS

## 250 -FT WINDS AND DELTA TEMPERATURE (250FT-35FT)

## CONTINUOUS RELEASES

PERIOD OF RECORD: 04/01/81 to 06/30/81

STABILITY CLASS: TOTAL

ELEVATION: 250 ft.

Wind Direction	Wind Speed (mph) at 250 ft. level						TOTAL
	0.7 - 3.4	3.5 - 7.4	7.5 - 12.4	12.5 - 18.4	18.5 - 24.4	> 24.4	
N	1	10	23	19	9	2	64
NNE	0	18	27	25	16	16	102
NE	1	15	23	49	17	3	108
ENE	2	13	43	42	18	17	135
E	2	13	72	34	11	9	141
ESE	2	17	32	46	5	0	102
SE	3	15	30	28	2	0	78
SSE	2	5	17	32	7	0	63
S	2	17	35	61	21	1	137
SSW	2	10	39	82	46	29	208
SW	2	13	63	104	53	42	277
WSW	0	13	51	87	37	19	207
W	1	12	28	52	17	12	122
WNW	2	9	27	49	29	19	135
NW	1	4	14	41	32	20	112
NNW	0	1	37	40	27	5	110
VARIABLE	0	0	0	0	0	0	0

Total: 23 185 561 791 347 194 2101

Period of Calm (hours): 1

Hours of Missing Data: 82

TABLE 5  
HOURS AT EACH WIND SPEED AND DIRECTION

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DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: First Quarter of 1981 (Jan. 1, 1981 - March 31, 1981)  
Batch Releases

STABILITY CLASS: 7(G)

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft)

<u>Wind Direction</u>	<u>Wind Speed (mph) at 35 ft. level</u>						<u>Total</u>
	<u>1-3</u>	<u>4-7</u>	<u>8-12</u>	<u>13-18</u>	<u>19-24</u>	<u>&gt;24</u>	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	4	0	0	0	0	4
W	0	2	0	0	0	0	2
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	6	0	0	0	0	6

Total: 6 hours

Periods of Calm (Hours): 0

Hours of Missing Data: 0

TABLE 5  
HOURS AT EACH WIND SPEED AND DIRECTION

Page 44

DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: First Quarter of 1981 (Jan. 1, 1981 - March 31, 1981)

Batch Releases

STABILITY CLASS: Total of all Classes

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft)

<u>Wind Direction</u>	<u>Wind Speed (mph) at 35 ft. level</u>						<u>Total</u>
	<u>1-3</u>	<u>4-7</u>	<u>8-12</u>	<u>13-18</u>	<u>19-24</u>	<u>&gt;24</u>	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	4	0	0	0	0	4
W	0	2	0	0	0	0	2
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	6	0	0	0	0	6

Total: 6 hours

Periods of Calm (Hours): 0

Hours of Missing Data: 0

TABLE 6  
HOURS AT EACH WIND SPEED AND DIRECTION

DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: Second Quarter 1981 (April 1, 1981 - June 30, 1981)  
Batch Releases

STABILITY CLASS: B (2)

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft.)

Wind Direction	Wind Speed (mph) at 35 ft. level						Total
	<u>1 - 3</u>	<u>4 - 7</u>	<u>8 - 12</u>	<u>13 - 18</u>	<u>19 - 24</u>	<u>&gt; 24</u>	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	1	0	0	0	0	1
TOTAL	0	1	0	0	0	0	1

Total: 1

Periods of Calm (Hours): 0

Hours of Missing Data: 0

## HOURS AT EACH WIND SPEED AND DIRECTION

## DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: Second Quarter 1981 (April 1, 1981 - June 30, 1981)  
Batch Releases

STABILITY CLASS: C (3)

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft.)

Wind Direction	Wind Speed (mph) at 35 ft. level						Total
	<u>1 - 3</u>	<u>4 - 7</u>	<u>8 - 12</u>	<u>13 - 18</u>	<u>19 - 24</u>	<u>&gt; 24</u>	
N	0	0	0	0	0	0	0
NNE	1	0	0	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	1	0	0	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	1	0	0	0	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	1	0	0	0	1
TOTAL	3	0	1	0	0	0	4

Total: 4

Periods of Calm (Hours): 0

Hours of Missing Data: 0

TABLE 6  
HOURS AT EACH WIND SPEED AND DIRECTION

Page 47

DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: Second Quarter 1981 (April 1, 1981 - June 30, 1981)

STABILITY CLASS: Batch Releases  
D(4)

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft.)

Wind Direction	Wind Speed (mph) at 35 ft. level						Total
	<u>1 - 3</u>	<u>4 - 7</u>	<u>8 - 12</u>	<u>13 - 18</u>	<u>19 - 24</u>	<u>&gt; 24</u>	
N	0	0	0	0	0	0	0
NNE	0	3	0	0	0	0	3
NE	0	0	1	0	0	0	1
ENE	0	2	0	0	0	0	2
E	0	2	0	0	0	0	2
ESE	0	1	0	0	0	0	1
SE	0	1	0	0	0	0	1
SSE	1	0	0	0	0	0	1
S	0	1	2	0	0	0	3
SSW	0	2	5	3	0	2	12
SW	0	0	2	2	0	5	9
WSW	1	1	9	1	0	0	12
W	0	2	2	1	0	0	5
WNW	1	1	2	0	0	0	4
NW	1	0	8	0	1	0	10
NNW	0	0	2	0	0	0	2
TOTAL	4	16	33	7	1	7	68

Total: 68

Periods of Calm (Hours): 0

Hours of Missing Data: 0



TABLE 6  
HOURS AT EACH WIND SPEED AND DIRECTION

Page 48

DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: Second Quarter 1981 (April 1, 1981 - June 30, 1981)  
Batch Releases

STABILITY CLASS: E (5)

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft.)

Wind Direction	Wind Speed (mph) at 35 ft. level						Total
	<u>1 - 3</u>	<u>4 - 7</u>	<u>8 - 12</u>	<u>13 - 18</u>	<u>19 - 24</u>	<u>&gt; 24</u>	
N	0	0	0	0	0	0	0
NNE	0	0	1	0	0	0	1
NE	0	0	1	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	2	0	0	0	0	2
ESE	0	1	0	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	2	3	0	0	0	0	5
SSW	2	5	4	5	0	0	16
SW	0	3	2	0	0	0	5
WSW	0	3	1	0	0	0	4
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL:	4	17	9	5	0	0	35

Total: 35

Periods of Calm (Hours): 0

Hours of Missing Data: 0

TABLE 6  
HOURS AT EACH WIND SPEED AND DIRECTION

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DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: Second Quarter 1981 (April 1, 1981 - June 30, 1981)

Batch Releases

STABILITY CLASS: F (6)

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft.)

<u>Wind Direction</u>	<u>Wind Speed (mph) at 35 ft. level</u>						<u>Total</u>
	<u>1 - 3</u>	<u>4 - 7</u>	<u>8 - 12</u>	<u>13 - 18</u>	<u>19 - 24</u>	<u>&gt; 24</u>	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	1	0	0	0	0	1
ESE	0	0	1	0	0	0	1
SE	0	1	0	0	0	0	1
SSE	0	2	0	0	0	0	2
S	0	6	0	0	0	0	6
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	10	1	0	0	0	11

Total: 11

Periods of Calm (Hours): 0

Hours of Missing Data: 0

TABLE 6  
HOURS AT EACH WIND SPEED AND DIRECTION

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DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: Second Quarter 1981 (April 1, 1981 - June 30, 1981)  
Batch Releases

STABILITY CLASS: G (7)

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft.)

Wind Direction	Wind Speed (mph) at 35 ft. level						Total
	<u>1 - 3</u>	<u>4 - 7</u>	<u>8 - 12</u>	<u>13 - 18</u>	<u>19 - 24</u>	<u>&gt; 24</u>	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	1	0	0	0	0	1
ESE	0	0	1	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL:	0	1	1	0	0	0	2

Total: 2

Periods of Calm (Hours): 0

Hours of Missing Data: 0

TABLE 6  
HOURS AT EACH WIND SPEED AND DIRECTION

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DAVIS-BESSE NUCLEAR POWER STATION

PERIOD OF RECORD: Second Quarter 1981 (April 1, 1981 - June 30, 1981)  
Batch Releases

STABILITY CLASS: Total of All Classes

ELEVATION: Atmospheric stability class based on 35 ft. winds and delta T (250-35 ft.)

<u>Wind Direction</u>	<u>Wind Speed (mph) at 35 ft. level</u>						<u>Total</u>
	<u>1 - 3</u>	<u>4 - 7</u>	<u>8 - 12</u>	<u>13 - 18</u>	<u>19 - 24</u>	<u>&gt; 24</u>	
N	0	0	0	0	0	0	0
NNE	1	3	1	0	0	0	5
NE	0	0	2	0	0	0	2
ENE	0	2	0	0	0	0	2
E	0	6	0	0	0	0	6
ESE	0	2	2	0	0	0	4
SE	0	2	0	0	0	0	2
SSE	2	2	0	0	0	0	4
S	2	10	2	0	0	0	14
SSW	2	7	9	8	0	2	28
SW	0	3	4	2	0	5	14
WSW	1	4	10	1	0	0	16
W	1	2	2	1	0	0	6
WNW	1	1	2	0	0	0	4
NW	1	0	8	0	1	0	10
NNW	0	1	3	0	0	0	4
TOTAL:	11	45	45	12	1	7	121

Total: 121

Periods of Calm (Hours): 0

Hours of Missing Data: 0

HOURLY METEOROLOGICAL DATA DURING BATCH RELEASES  
DAVIS-BESSE NUCLEAR POWER STATION  
January 1, 1981 - June 30, 1981

<u>YR</u>	<u>MN</u>	<u>DY</u>	<u>HOUR</u>	<u>35-ft. Wind Speed (mph)</u>	<u>35-ft. Wind Direction</u>	<u><math>\Delta T</math> 250 ft. - 35 ft. (<math>^{\circ}F</math>)</u>
81	1	8	01	5.9	264	5.8
81	1	8	02	7.0	248	5.2
81	1	8	03	6.8	246	6.2
81	1	8	04	4.6	262	6.8
81	4	8	02	7.4	179	1.9
81	4	8	03	13.3	205	0.9
81	4	8	04	15.4	208	0.3
81	4	8	05	14.8	210	0.2
81	4	8	06	13.5	205	0.1
81	4	8	07	14.5	205	0
81	4	8	08	15.9	205	-0.7
81	4	8	09	18.1	201	-1.2
81	4	8	10	16.3	208	-1.7
81	4	8	11	25.2	218	-1.5
81	4	8	12	25.8	221	-1.4
81	4	8	13	25.1	221	-1.6
81	4	8	14	24.4	220	-1.6
81	4	8	15	24.6	216	-1.5
81	4	8	16	26.1	208	-1.5
81	4	24	11	16.9	298	-1.2
81	4	24	12	18.5	307	-1.2
81	4	28	19	11.0	303	-1.0
81	4	28	20	11.0	170	-1.5
81	4	28	21	14.8	222	-1.0

HOURLY METEOROLOGICAL DATA DURING BATCH RELEASES  
DAVIS-BESSE NUCLEAR POWER STATION  
January 1, 1981 - June 30, 1981

<u>YR</u>	<u>MN</u>	<u>DY</u>	<u>HOUR</u>	<u>35-ft. Wind Speed (mph)</u>	<u>35-ft. Wind Direction</u>	<u><math>\Delta T</math> 250 ft. - 35 ft. (<math>^{\circ}F</math>)</u>
81	4	28	22	16.3	216	-1.3
81	4	28	23	13.2	252	-1.2
81	4	28	24	13.0	265	-1.1
81	4	29	01	10.1	247	-1.3
81	4	29	02	9.4	239	-1.5
81	4	29	03	8.2	220	-1.7
81	4	29	04	8.3	250	-1.8
81	4	29	05	8.7	300	-1.8
81	4	29	06	11.7	348	-1.8
81	4	29	07	11.1	330	-1.9
81	4	29	08	11.2	325	-1.7
81	4	29	09	11.0	327	-1.9
81	4	29	10	10.5	320	-1.9
81	4	29	11	11.4	323	-2.1
81	4	29	12	12.3	316	-2.0
81	4	29	13	11.8	312	-2.1
81	4	29	14	11.2	310	-2.4
81	4	29	15	10.9	324	-1.8
81	4	29	16	9.2	220	-2.0
81	4	29	17	6.3	286	-2.1
81	4	29	18	3.2	310	-2.2
81	4	29	19	2.6	283	-2.1
81	4	29	20	2.1	156	-1.9
81	4	29	21	3.0	248	-1.7
81	4	29	22	5.1	262	-1.1



TABLE 7

HOURLY METEOROLOGICAL DATA DURING BATCH RELEASES  
 DAVIS-BESSE NUCLEAR POWER STATION  
 January 1, 1981 - June 30, 1981

<u>YR</u>	<u>MN</u>	<u>DY</u>	<u>HOUR</u>	<u>35-ft. Wind Speed (mph)</u>	<u>35-ft. Wind Direction</u>	<u><math>\Delta T</math> 250 ft. - 35 ft. (<math>^{\circ}F</math>)</u>
81	4	29	23	4.6	242	-0.3
81	4	29	24	5.0	225	0.3
81	4	30	01	3.8	226	0.6
81	4	30	02	4.7	239	0.2
81	4	30	03	3.4	209	0.5
81	4	30	04	2.7	204	0.2
81	4	30	05	3.4	176	1.5
81	4	30	06	2.2	177	1.3
81	4	30	07	5.5	241	0.1
81	4	30	08	5.5	265	8*
81	4	30	09	3.4	271	16*
81	4	30	10	3.7	344	18*
81	4	30	11	3.3	30	17*
81	4	30	12	6.6	26	11*
81	4	30	13	8.5	26	5*
81	4	30	14	8.3	34	7*
81	4	30	15	7.3	29	9*
81	4	30	16	6.3	32	11*
81	4	30	17	6.6	59	8*
81	4	30	18	6.3	94	10*
81	4	30	19	6.2	97	7*
81	4	30	20	5.1	111	7*
81	4	30	21	5.1	98	5*
81	4	30	22	4.4	140	12*
81	5	23	20	3.8	89	3.6*

HOURLY METEOROLOGICAL DATA DURING BATCH RELEASES  
DAVIS-BESSE NUCLEAR POWER STATION  
January 1, 1981 - June 30, 1981

<u>YR</u>	<u>MO</u>	<u>DY</u>	<u>HOURL</u>	<u>35-ft. Wind Speed (mph)</u>	<u>35-ft. Wind Direction</u>	<u><math>\Delta T</math> 250 ft. - 35 ft. (<math>^{\circ}F</math>)</u>
81	5	23	21	4.4	91	5.1*
81	5	23	22	7.9	109	5.4*
81	5	23	23	8.3	112	4.5*
81	5	23	24	5.9	131	2.7*
81	5	24	01	5.7	148	2.6*
81	5	24	02	6.8	153	1.9*
81	5	24	03	5.0	171	1.9*
81	5	24	04	4.4	169	2.9*
81	5	24	05	4.6	174	4.1*
81	5	24	06	4.1	179	4.6*
81	5	24	07	4.7	177	3.9*
81	5	24	08	6.6	187	-0.4
81	5	24	09	6.4	191	-1.3
81	5	24	10	7.9	192	-1.5
81	5	24	11	8.3	192	-1.4
81	5	24	12	11.3	213	-1.4
81	5	24	13	9.3	188	-1.4
81	5	24	14	8.4	197	-0.4
81	5	24	15	7.9	196	-0.4
81	5	24	16	6.8	193	-1.1
81	5	24	17	9.8	198	-1.1
81	5	24	18	7.6	211	-0.9
81	5	24	19	6.0	201	0.4
81	5	24	20	7.7	209	0.8
81	5	24	21	12.3	247	0.8

HOURLY METEOROLOGICAL DATA DURING BATCH RELEASES  
DAVIS-BESSE NUCLEAR POWER STATION  
January 1, 1981 - June 30, 1981

<u>YR</u>	<u>MN</u>	<u>DY</u>	<u>HOUR</u>	<u>35-ft. Wind Speed (mph)</u>	<u>35-ft. Wind Direction</u>	<u><math>\Delta T</math> 250 ft. - 35 ft. (<math>^{\circ}F</math>)</u>
81	5	24	22	7.5	227	-0.4
81	5	24	23	4.9	184	0.4
81	5	24	24	7.3	219	-0.1
81	5	25	01	7.8	215	-0.3
81	5	25	02	6.1	197	-0.1
81	5	25	03	8.9	212	-0.4
81	5	25	04	6.6	212	-0.4
81	5	25	05	5.4	195	-0.3
81	5	25	06	5.7	188	-0.3
81	5	25	07	6.7	201	-1.5
81	5	25	08	7.4	203	-1.0
81	5	25	09	10.1	218	-1.0
81	5	25	10	9.0	239	-1.3
81	5	25	11	10.0	245	-1.6
81	5	25	12	9.6	280	-1.5
81	5	25	13	10.2	245	-1.7
81	5	25	14	10.8	256	-1.6
81	5	25	15	11.3	248	-1.5
81	5	25	16	11.6	250	-1.4
81	5	25	17	11.4	242	-1.3
81	6	27	10	4.2	122	-1.2
81	6	27	11	6.5	84	-1.5
81	6	27	12	6.8	61	-1.6
81	6	27	13	8.3	52	-1.5
81	6	27	14	7.9	59	-1.6

\*Sigma theta for 35 ft. used due to missing  $\Delta T$  at 35 ft.

TABLE 8

## SEMIANNUAL MAXIMUM INDIVIDUAL DOSE TABLE (GASEOUS)

JAN. 1, 1981 THROUGH JUNE 30, 1981

## DOSE DUE TO RELEASE OF NOBLE GAS

## WHOLE BODY DOSE (MREM)

	CRITICAL SECTOR	CRITICAL DISTANCE	CRITICAL AGE	CRITICAL ORGAN	CRITICAL DOSE
FIRST QUARTER	NNE	966.(M)	NA	W BODY	3.45E-03
SECOND QUARTER	NNE	966.(M)	NA	W BODY	4.66E-03
SEMIANNUAL TOTAL	NNE	966.(M)	NA	W BODY	8.11E-03

## SKIN DOSES (MREM)

	CRITICAL SECTOR	CRITICAL DISTANCE	CRITICAL AGE	CRITICAL ORGAN	CRITICAL DOSE
FIRST QUARTER	NNE	966.(M)	NA	SKIN	9.51E-03
SECOND QUARTER	NNE	966.(M)	NA	SKIN	1.33E-02
SEMIANNUAL TOTAL	NNE	966.(M)	NA	SKIN	2.28E-02

TABLE 9

## SEMIANNUAL MAXIMUM INDIVIDUAL DOSE TABLE (GASEOUS)

JAN. 1, 1981 THROUGH JUNE 30, 1981

DOSE DUE TO RELEASE OF H3, C14, AND RADIOIODINES AND PARTICULATES

## WHOLE BODY DOSE (MREM)

	CRITICAL SECTOR	CRITICAL DISTANCE	CRITICAL AGE	CRITICAL ORGAN	CRITICAL DOSE
FIRST QUARTER	SSE	1931.(M)	CHILD	W BODY	5.64E-04
SECOND QUARTER	WSW	4345.(M)	INFANT	W BODY	7.19E-03
SEMIANNUAL TOTAL	WSW	4345.(M)	INFANT	W BODY	7.33E-03

## SIGNIFICANT ORGAN DOSES (MREM)

	CRITICAL SECTOR	CRITICAL DISTANCE	CRITICAL AGE	CRITICAL ORGAN	CRITICAL DOSE
FIRST QUARTER	SSE	8689.(M)	INFANT	THYROID	2.93E-01
SECOND QUARTER	WSW	4345.(M)	INFANT	THYROID	5.18E+00
SEMIANNUAL TOTAL	WSW	4345.(M)	INFANT	THYROID	5.27E+00



TABLE 10

## SEMIANNUAL POPULATION DOSE TABLE (GASEOUS)

JAN. 1, 1981 THROUGH JUNE 30, 1981

DOSE DUE TO RELEASE OF NOBLE GAS

TOTAL INTEGRATED  
POPULATION DOSE (MANREM)AVERAGE DOSE TO INDIVIDUALS  
IN POPULATION (MREM)

WHOLE BODY

WHOLE BODY

FIRST QUARTER

3.27E-03

1.47E-06

SECOND QUARTER

5.63E-03

2.54E-06

SEMIANNUAL TOTAL

8.92E-03

4.01E-06

TABLE 11

## SEMIANNUAL POPULATION DOSE TABLE (GASEOUS)

JAN. 1, 1981 THROUGH JUNE 30, 1981

DOSE DUE TO RELEASE OF H3, C14, AND RADIOIODINES AND PARTICULATES

TOTAL INTEGRATED  
POPULATION DOSE (MANREM)AVERAGE DOSE TO INDIVIDUALS  
IN POPULATION (MREM)

	WHOLE BODY	WHOLE BODY
FIRST QUARTER	5.50E-04	2.47E-07
SECOND QUARTER	9.52E-04	4.28E-07
SEMIANNUAL TOTAL	1.50E-03	6.75E-07

TABLE 12

## SEMIANNUAL POPULATION DOSE TABLE (LIQUID)

JAN. 1, 1981 THROUGH JUNE 30, 1981

TOTAL INTEGRATED  
POPULATION DOSE (MANREM)AVERAGE DOSE TO INDIVIDUALS  
IN POPULATION (MREM)

WHOLE BODY

WHOLE BODY

FIRST QUARTER

8.41E-01

3.78E-04

SECOND QUARTER

3.37E+00

1.51E-03

SEMIANNUAL TOTAL

4.21E+00

1.89E-03

TABLE 13

## SEMIANNUAL MAXIMUM INDIVIDUAL DOSE TABLE (LIQUID)

JAN. 1, 1981 THROUGH JUNE 30, 1981

CRITICAL RECEPTOR : 0.6 MILES NW OF DISCHARGE

	WHOLE BODY DOSES (MREM)		SIGNIFICANT ORGAN DOSES (MREM)		
	CRITICAL AGE	CRITICAL DOSE	CRITICAL AGE	CRITICAL ORGAN	CRITICAL DOSE
FIRST QUARTER	ADULT	1.76E-01	TEEN	LIVER	2.53E-01
SECOND QUARTER	ADULT	8.88E-01	TEEN	LIVER	1.27E+00
SEMIANNUAL TOTAL	ADULT	1.06E+00	TEEN	LIVER	1.52E+00