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April 28, 2000

Re: Indian Point Unit No. 1
and No. 2
Docket No. 50-3 and
No. 50-247

Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

SUBJECT: Annual Effluent and Waste Disposal Report

Attached is the 1999 Annual Effluent and Waste Disposal Report for Consolidated Edison's Indian Point Unit No. 2. Indian Point Unit No. 2 operated for 11 months during the year which resulted in an increase of radioactive releases and radiation dose to the public and environs as compared to the previous reporting period.

Should you have any questions regarding this matter, please contact Mr. John McCann, Manager, Nuclear Safety and Licensing.

Sincerely yours,



Attachments

JEHB

cc: Mr. Hubert J. Miller
Regional Administrator - Region I
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King of Prussia, PA 19406

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ANNUAL
EFFLUENT AND WASTE DISPOSAL REPORT
1999

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NOS. 1 & 2
DOCKET NOS. 50-03 & 50-247
MAY, 2000

ANNUAL
EFFLUENT AND WASTE DISPOSAL REPORT
1999

FACILITY: Indian Point Station (Units 1 and 2)

LICENSEE: Consolidated Edison Company of New York, Inc.

This information is provided pursuant to 10 CFR 50.36a(a)(2) and employs certain guidance as set forth in Regulatory Guide 1.21, Revision 1. The numbered sections of this part of the report reference corresponding sections of the subject Regulatory Guide, pages 1.21-10 through 1.21-12. This Annual Effluent and Waste Disposal Report for Indian Point Units 1 and 2 covers discharges for 1999. The New York Power Authority, licensee of Indian Point Unit 3, will issue separate reports for the Indian Point Unit No. 3 facility.

A. Supplemental Information and Definition

1. Regulatory Limits

Indian Point Units 1 and 2 are presently subject to radioactive waste release specifications that are set forth in Appendix A to Facility Operating Licenses DPR-5 and DPR-26, entitled "Technical Specifications and Bases" (Indian Point Unit No. 2 Technical Specification Section 3.9 "Radioactive Effluents").

2. Maximum Permissible Concentrations (MPC)

Gaseous Effluents

Concentrations of gaseous discharges in unrestricted areas are computed by producing release rate (Q) and the annual average dispersion factor (X/Q) at the most restrictive site boundary location. The mixture percent of MPC* is obtained by adding the effects of each nuclide; the effect of each nuclide is, in turn, the quotient of its computed concentration and its MPC.

* 10 CFR 20 Appendix B Table 2 Col 1 (Pre-1994).

Liquid Effluents

All liquid discharges from Indian Point are made through a common discharge canal with a minimum of 100,000 gpm dilution water. The isotopic content, excluding tritium and dissolved noble gas, of continuous and batch mode discharges of liquid effluent for each calendar quarter has been added and a weighted average fraction of MPC* has been calculated for this isotopic mixture. The percent of the applicable limit reported in Section C of this document is the percent of MPC concentration of the time-average diluted concentration for each quarter.

The tritium limit has been established in the same manner as the limits for other isotopes in liquid effluents. A derived MPC of 2×10^{-4} uCi/ml for dissolved noble gases has been conservatively adopted for liquid effluents due to the swimming pathway.

* 10 CFR 20 Appendix B Table 2 Col 2 (Pre-1994).

3. Average Energy

The average energy (\bar{E})* of the radionuclide mixture in releases of fission and activation gases for the four quarters in 1999 are provided below:

	<u>1st</u> <u>Quarter</u>	<u>2nd</u> <u>Quarter</u>	<u>3rd</u> <u>Quarter</u>	<u>4th</u> <u>Quarter</u>
Beta	0.131	0.164	0.179	0.086
Gamma	0.250	0.320	0.337	0.146

* Values in Mev/Disintegration

4. Measurements and Approximations of Total Radioactivity

a. Fission and Activation Gases

Analysis of effluent gases was performed in compliance with the requirements of Table 4.10-3 of the Technical Specifications. In the case of isolated tanks (batch releases), the total activity discharged was based on an isotopic analysis of each batch and the volume of gas in that batch.

Vapor Containment ventilation discharges have generally been treated as batch releases. At least one complete isotopic concentration analysis of containment air was performed per week. This was applied to gross analysis of the ventilation air performed prior to each discharge. This information

was combined with the volume of air in each discharge to calculate the radionuclide composition of these discharges.

The continuous discharges were based on the isotopic content determined from weekly samples of ventilation air. This information was combined with total air volume discharged by this route. The accumulation of batch and containment ventilation releases was then used to determine total discharges.

b.&.c Iodines and Particulates

Iodine-131 and particulate releases are quantified by collecting a continuous sample of ventilation air on a potassium-iodide impregnated activated charcoal cartridge and a glass-fiber filter paper. These samples are obtained as required by Table 4.10-3 of the Technical Specifications. The concentration of isotopes found by analysis of these samples was combined with the volume of air discharged during the sampling period to calculate the amount of activity discharged.

For other iodine isotopes the ratio of each isotope to Iodine-131 was determined by a monthly 24 hour composite sample. This ensures the proper identification of the short-lived I-133 and I-135 isotopes.

d. Liquid Effluents

A sample of each batch discharge was taken and an isotopic analysis was performed in compliance with the requirements specified in Table 4.10-1 of the Technical Specifications. This isotopic concentration data was combined with information of volume discharged to determine the amount of each isotope discharged in the period.

Samples of continuous discharges have been taken and analyzed in compliance with Table 4.10-1 of the Technical Specifications. This concentration data was combined with the volume discharged to calculate the amount of each isotope discharged.

The above concentrations were used in conjunction with the actual dilution flow to calculate the fraction of maximum permissible concentration.

e. Error Estimates

The total error estimate is the geometric sum of counting uncertainty and sampling uncertainty, expressed as a percent. Sampling uncertainties are considered independent of activity level and largely fixed in value. However, counting uncertainties are activity level dependent. The percent counting uncertainty is the quotient of the 1 sigma (Poisson) uncertainty and the activity measured. This percent uncertainty is maximized at low activity levels, specifically at the lower limit of detection (LLD). It can be shown that the percent uncertainty at LLD is no more than 35%. But as most positive samples are detected at several multiples of LLD, at least, the percent uncertainty is more likely to be in the 8% to 12% range. Adding a consideration of fixed uncertainty of sampling, the total uncertainty is estimated to be 15%.

May, 2000
 Re: Indian Point Unit Nos. 1 & 2
 Docket Nos. 50-03 & 50-247

5. Batch Releases:

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	
a. Liquid					
Number of Batch Releases	36	31	39	38	
Total Time Period of Batch Releases (Minutes)	13400	6530	6440	9200	
Maximum Time Period of Batch Release (Minutes)	1020	697	530	545	
Average Time Period of Batch Release (Minutes)	372	210	165	242	
Minimum Time Period of Batch Release (Minutes)	75	69	50	40	
Average Stream Flow (cfs)	1997	26800	26253	6053	n/a(1)
	1998	n/a(1)	n/a(1)	n/a(1)	n/a(1)
	1999	n/a(1)	n/a(1)	n/a(1)	n/a(1)

(1) This information obtained from the US Department of the Interior, is not available at this time.

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
b. Gaseous				
Number of Batch Releases	192	232	244	202
Total Time Period of Batch Releases (Minutes)	14200	17500	19000	19900
Maximum Time Period of Batch Release (Minutes)	723	220	2550	1440
Average Time Period of Batch Release (Minutes)	73.7	75.4	78.1	98.6
Minimum Time Period of Batch Release (Minutes)	1	1	1	1

6. Abnormal Releases

- a. Liquid - One (1.21E-2 Ci)
- b. Gaseous - None

May, 2000
Re: Indian Point Unit Nos. 1 & 2
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ANNUAL
EFFLUENT AND WASTE DISPOSAL REPORT
B - GASEOUS EFFLUENTS
1999

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NOS. 1 & 2
DOCKET NOS. 50-03 & 50-247
MAY, 2000

**Con Edison
 Indian Point Station**

1999 EFFLUENT AND WASTE DISPOSAL
 GASEOUS EFFLUENTS -- SUMMATION OF ALL RELEASES

 : UNITS : QUARTER : QUARTER : EST. TOTAL :
 : : 1 : 2 : ERROR, % :

A. FISSION AND ACTIVATION GASES

 : 1. TOTAL RELEASE : CI : 3.95E+00 : 5.33E+00 : 1.50E+01 :

 : 2. AVERAGE RELEASE :UCI/SEC: 5.08E-01 : 6.78E-01 :
 : RATE FOR PERIOD : : : :

 : 3. PERCENT OF TECHNICAL: % : 2.32E-03 : 3.65E-03 :
 : SPECIFICATION LIMIT : : : :

B. IODINES

 : 1. TOTAL IODINE-131 : CI : 0.00E+00 : 0.00E+00 : 1.50E+01 :

 : 2. AVERAGE RELEASE :UCI/SEC: 0.00E+00 : 0.00E+00 :
 : RATE FOR PERIOD : : : :

 : 3. PERCENT OF TECHNICAL: % : 0.00E+00 : 0.00E+00 :
 : SPECIFICATION LIMIT : : : :

C. PARTICULATES

 : 1. PARTICULATES WITH : CI : 3.14E-04 : 3.62E-04 : 1.50E+01 :
 : HALF-LIVES >8 DAYS : : : : :

 : 2. AVERAGE RELEASE :UCI/SEC: 4.04E-05 : 4.61E-05 :
 : RATE FOR PERIOD : : : :

 : 3. PERCENT OF TECHNICAL: % : 5.90E-06 : 4.53E-05 :
 : SPECIFICATION LIMIT : : : :

 : 4. GROSS ALPHA : CI : 1.64E-07 : 4.20E-07 :
 : RADIOACTIVITY : : : :

D. TRITIUM

 : 1. TOTAL RELEASE : CI : 6.81E-01 : 1.14E+00 : 1.50E+01 :

 : 2. AVERAGE RELEASE :UCI/SEC: 8.75E-02 : 1.44E-01 :
 : RATE FOR PERIOD : : : :

 : 3. PERCENT OF TECHNICAL: % : 2.15E-04 : 3.54E-04 :
 : SPECIFICATION LIMIT : : : :

EFFLUENT AND WASTE DISPOSAL 1999 ANNUAL REPORT
 GASEOUS EFFLUENTS FOR ALL RELEASE POINTS

CONTINUOUS MODE				BATCH MODE	
NUCLIDES RELEASED	UNITS	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2

1. FISSION AND ACTIVATION GASES

H3	CI	6.81E-01	1.14E+00	0.00E+00	0.00E+00
C14	CI	2.00E+00	2.00E+00	0.00E+00	0.00E+00
AR41	CI	9.27E-03	1.65E-03	5.95E-01	1.12E+00
KR85M	CI	0.00E+00	0.00E+00	4.55E-02	7.68E-02
KR85	CI	0.00E+00	0.00E+00	2.44E-07	0.00E+00
KR87	CI	0.00E+00	0.00E+00	3.02E-02	5.74E-02
KR88	CI	0.00E+00	0.00E+00	6.60E-02	1.17E-01
XE131M	CI	0.00E+00	0.00E+00	3.21E-07	0.00E+00
XE133M	CI	0.00E+00	2.32E-06	1.65E-02	2.85E-02
XE133	CI	0.00E+00	1.57E-05	4.78E-01	7.68E-01
XE135M	CI	5.75E-03	1.57E-03	6.85E-02	1.31E-01
XE135	CI	7.60E-03	8.21E-04	6.05E-01	9.93E-01
XE138	CI	0.00E+00	3.13E-05	1.91E-02	3.67E-02
TOTAL FOR PERIOD (ABOVE)	CI	2.70E+00	3.14E+00	1.92E+00	3.33E+00

CONTINUOUS MODE				BATCH MODE	
NUCLIDES RELEASED	UNITS	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2

2. IODINES

TOTAL FOR PERIOD (ABOVE)	CI	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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EFFLUENT AND WASTE DISPOSAL REPORT
 GASEOUS EFFLUENTS FOR ALL RELEASE POINTS

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER
RELEASED		1	2	1	2

3. PARTICULATES

CO60	CI	6.57E-06	1.42E-04	0.00E+00	0.00E+00
SR90	CI	0.00E+00	2.03E-06	0.00E+00	0.00E+00
CS137	CI	3.57E-05	9.26E-05	0.00E+00	0.00E+00
* NI63	CI	5.99E-07	7.06E-05	0.00E+00	0.00E+00
* FE55	CI	2.72E-04	5.55E-05	0.00E+00	0.00E+00
TOTAL FOR					
PERIOD	CI	3.14E-04	3.62E-04	0.00E+00	0.00E+00
(ABOVE)					

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
 GASEOUS EFFLUENTS -- SUMMATION OF ALL RELEASES

 : UNITS : QUARTER : QUARTER : EST. TOTAL :
 : : 3 : 4 : ERROR, % :

A. FISSION AND ACTIVATION GASES

 : 1. TOTAL RELEASE : CI : 3.84E+00 : 2.34E+00 : 1.50E+01 :

 : 2. AVERAGE RELEASE :UCI/SEC: 4.84E-01 : 2.94E-01 :
 : RATE FOR PERIOD : : : :

 : 3. PERCENT OF TECHNICAL: % : 2.73E-03 : 1.05E-03 :
 : SPECIFICATION LIMIT : : : :

B. IODINES

 : 1. TOTAL IODINE-131 : CI : 0.00E+00 : 0.00E+00 : 1.50E+01 :

 : 2. AVERAGE RELEASE :UCI/SEC: 0.00E+00 : 0.00E+00 :
 : RATE FOR PERIOD : : : :

 : 3. PERCENT OF TECHNICAL: % : 0.00E+00 : 0.00E+00 :
 : SPECIFICATION LIMIT : : : :

C. PARTICULATES

 : 1. PARTICULATES WITH : CI : 3.13E-03 : 4.97E-04 : 1.50E+01 :
 : HALF-LIVES >8 DAYS : : : :

 : 2. AVERAGE RELEASE :UCI/SEC: 3.94E-04 : 6.25E-05 :
 : RATE FOR PERIOD : : : :

 : 3. PERCENT OF TECHNICAL: % : 5.14E-04 : 7.41E-05 :
 : SPECIFICATION LIMIT : : : :

 : 4. GROSS ALPHA : CI : 1.22E-06 : 4.27E-07 :
 : RADIOACTIVITY : : : :

D. TRITIUM

 : 1. TOTAL RELEASE : CI : 9.55E-01 : 7.03E-01 : 1.50E+01 :

 : 2. AVERAGE RELEASE :UCI/SEC: 1.20E-01 : 8.84E-02 :
 : RATE FOR PERIOD : : : :

 : 3. PERCENT OF TECHNICAL: % : 2.95E-04 : 2.17E-04 :
 : SPECIFICATION LIMIT : : : :

EFFLUENT AND WASTE DISPOSAL REPORT
 GASEOUS EFFLUENTS FOR ALL RELEASE POINTS

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
1. FISSION AND ACTIVATION GASES					
H3	CI	9.55E-01	7.03E-01	0.00E+00	0.00E+00
C14	CI	1.33E+00	1.67E+00	0.00E+00	0.00E+00
AR41	CI	1.85E-02	1.41E-02	9.29E-01	2.74E-01
KR85M	CI	8.36E-04	0.00E+00	4.85E-02	1.09E-02
KR85	CI	0.00E+00	2.89E-03	4.34E-04	4.58E-04
KR87	CI	6.32E-04	0.00E+00	3.20E-02	4.81E-03
KR88	CI	1.28E-03	0.00E+00	7.05E-02	1.26E-02
XE133M	CI	1.82E-04	0.00E+00	1.70E-02	2.84E-04
XE133	CI	9.08E-03	8.09E-03	6.39E-01	2.05E-01
XE135M	CI	4.79E-03	8.11E-03	7.06E-02	2.56E-03
XE135	CI	1.25E-02	4.49E-03	6.39E-01	1.22E-01
XE138	CI	4.76E-04	2.55E-04	1.94E-02	1.03E-04
TOTAL FOR PERIOD (ABOVE)	CI	2.33E+00	2.41E+00	2.47E+00	6.33E-01

EFFLUENT AND WASTE DISPOSAL REPORT
 GASEOUS EFFLUENTS FOR ALL RELEASE POINTS

CONTINUOUS MODE				BATCH MODE			
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER
RELEASED		3	4	3	4	3	4

2. IODINES

CONTINUOUS MODE				BATCH MODE			
TOTAL FOR	UNITS	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER
PERIOD	CI	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(ABOVE)							

CONTINUOUS MODE				BATCH MODE			
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER
RELEASED		3	4	3	4	3	4

3. PARTICULATES

CONTINUOUS MODE				BATCH MODE			
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER
RELEASED		3	4	3	4	3	4
CO60	CI	1.84E-03	2.14E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SR89	CI	0.00E+00	1.63E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SR90	CI	1.79E-05	8.51E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CS137	CI	7.93E-04	1.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
* NI63	CI	3.80E-04	1.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
* FE55	CI	1.02E-04	3.34E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL FOR							
PERIOD	CI	3.13E-03	4.97E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(ABOVE)							

* DENOTES SUPPLEMENTAL ISOTOPES

May, 2000
Re: Indian Point Unit Nos. 1 & 2
Docket Nos. 50-03 & 50-247

ANNUAL
EFFLUENT AND WASTE DISPOSAL REPORT
C - LIQUID EFFLUENTS
1999

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NOS. 1 & 2
DOCKET NOS. 50-03 & 50-247
MAY, 2000

**Con Edison
 Indian Point Station**

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT 1999
LIQUID EFFLUENTS -- SUMMATION OF ALL RELEASES

 : UNITS : QUARTER : QUARTER : EST. TOTAL :
 : : 1 : 2 : ERROR, % :

A. FISSION AND ACTIVATION PRODUCTS

 : 1. TOTAL RELEASE (EXCL.: Ci : 9.50E-02 : 6.17E-02 : 1.50E+01 :
 : TRIT., GASES, ALPHA) : : : : :

 : 2. AVERAGE DILUTED :µCi/ml : 6.32E-10 : 2.81E-10 :
 : CONC. DURING PERIOD : : : : :

 : 3. PERCENT OF : % : 3.12E-03 : 2.48E-03 :
 : APPLICABLE LIMIT : : : : :

B. TRITIUM

 : 1. TOTAL RELEASE : Ci : 8.54E+01 : 1.07E-02 : 1.50E+01 :

 : 2. AVERAGE DILUTED :µCi/ml : 5.68E-07 : 4.86E-11 :
 : CONC. DURING PERIOD : : : : :

 : 3. PERCENT OF : % : 1.68E-02 : 1.99E-06 :
 : APPLICABLE LIMIT : : : : :

C. DISSOLVED AND ENTRAINED GASES

 : 1. TOTAL RELEASE : Ci : 0.00E+00 : 0.00E+00 : 1.50E+01 :

 : 2. AVERAGE DILUTED :µCi/ml : 0.00E+00 : 0.00E+00 :
 : CONC. DURING PERIOD : : : : :

 : 3. PERCENT OF : % : 0.00E+00 : 0.00E+00 :
 : APPLICABLE LIMIT : : : : :

D. GROSS ALPHA RADIOACTIVITY

 : 1. TOTAL RELEASE : Ci : 0.00E+00 : 0.00E+00 : 5.00E+01 :

 E. VOLUME WASTE RELEASED :LITERS : 1.19E+07 : 1.15E+07 : 1.00E+01 :
 : (PRIOR TO DILUTION) : : : : :

 F. VOLUME DILUTION WATER :LITERS : 1.50E+11 : 2.20E+11 : 1.00E+01 :
 : USED DURING PERIOD : : : : :

**Con Edison
 Indian Point Station**

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT 1999
 LIQUID EFFLUENTS FOR ALL RELEASE POINTS

CONTINUOUS MODE				BATCH MODE	
NUCLIDES RELEASED	UNITS	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
H3	Ci	1.14E-02	1.07E-02	8.53E+01	0.00E+00
Cr51	Ci	0.00E+00	0.00E+00	1.10E-04	0.00E+00
Mn54	Ci	0.00E+00	0.00E+00	4.60E-05	1.86E-06
Fe55	Ci	0.00E+00	3.92E-03	1.55E-02	0.00E+00
Co58	Ci	0.00E+00	0.00E+00	6.30E-03	3.08E-06
Co60	Ci	0.00E+00	0.00E+00	3.38E-03	8.22E-05
Ni63	Ci	3.62E-04	9.10E-08	8.38E-03	0.00E+00
Sr90	Ci	7.00E-04	4.70E-04	0.00E+00	0.00E+00
Cs134	Ci	0.00E+00	0.00E+00	0.00E+00	5.02E-06
Cs137	Ci	4.87E-02	5.72E-02	3.02E-04	2.62E-05
Sb124	Ci	0.00E+00	0.00E+00	3.55E-03	0.00E+00
Sb125	Ci	0.00E+00	0.00E+00	7.63E-03	0.00E+00
Co57	Ci	0.00E+00	0.00E+00	1.09E-05	0.00E+00
TOTAL FOR PERIOD (ABOVE)	Ci	6.11E-02	7.23E-02	8.54E+01	1.18E-04

**Con Edison
 Indian Point Station**

**EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT 1999
 LIQUID EFFLUENTS -- SUMMATION OF ALL RELEASES**

	UNITS	QUARTER	QUARTER	EST. TOTAL
		3	4	ERROR, %

A. FISSION AND ACTIVATION PRODUCTS

1. TOTAL RELEASE (EXCL. TRIT., GASES, ALPHA)	Ci	6.36E-02	5.50E-02	1.50E+01
2. AVERAGE DILUTED CONC. DURING PERIOD	µCi/ml	1.83E-10	1.50E-10	
3. PERCENT OF APPLICABLE LIMIT	%	5.36E-04	4.45E-04	

B. TRITIUM

1. TOTAL RELEASE	Ci	1.33E+01	6.26E+01	1.50E+01
2. AVERAGE DILUTED CONC. DURING PERIOD	µCi/ml	3.82E-08	1.71E-07	
3. PERCENT OF APPLICABLE LIMIT	%	6.17E-04	2.51E-03	

C. DISSOLVED AND ENTRAINED GASES

1. TOTAL RELEASE	Ci	2.13E-05	0.00E+00	1.50E+01
2. AVERAGE DILUTED CONC. DURING PERIOD	µCi/ml	6.13E-14	0.00E+00	
3. PERCENT OF APPLICABLE LIMIT	%	3.07E-08	0.00E+00	

D. GROSS ALPHA RADIOACTIVITY

1. TOTAL RELEASE	Ci	0.00E+00	0.00E+00	5.00E+01
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E. VOLUME WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.01E+07	4.30E+07	1.00E+01
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F. VOLUME DILUTION WATER USED DURING PERIOD	LITERS	3.47E+11	3.67E+11	1.00E+01
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May, 2000
 Re: Indian Point Unit Nos. 1 & 2
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**Con Edison
 Indian Point Station**

**EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT 1999
 LIQUID EFFLUENTS FOR ALL RELEASE POINTS**

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
H3	Ci	1.03E-02	6.86E-02	1.33E+01	6.25E+01
Mn54	Ci	0.00E+00	0.00E+00	8.53E-04	3.99E-04
Fe55	Ci	1.93E-03	1.30E-06	4.71E-03	6.78E-03
Co58	Ci	5.30E-05	0.00E+00	1.87E-03	7.11E-04
Co60	Ci	6.72E-04	1.73E-07	1.63E-02	1.10E-02
Ni63	Ci	5.15E-04	2.03E-04	7.85E-03	1.46E-02
Sr89	Ci	7.07E-05	0.00E+00	0.00E+00	0.00E+00
Sr90	Ci	4.72E-04	5.35E-04	3.56E-05	1.14E-04
Ag110m	Ci	0.00E+00	0.00E+00	3.11E-04	9.59E-05
I131	Ci	0.00E+00	0.00E+00	0.00E+00	1.94E-05
Cs134	Ci	6.38E-05	1.13E-08	4.35E-04	3.11E-04
Cs137	Ci	2.21E-02	6.87E-03	1.47E-03	4.16E-03
Sb124	Ci	0.00E+00	0.00E+00	0.00E+00	1.43E-03
Sb125	Ci	0.00E+00	0.00E+00	3.83E-03	7.73E-03
Co57	Ci	0.00E+00	0.00E+00	3.30E-05	0.00E+00
TOTAL FOR PERIOD (ABOVE)	Ci	3.62E-02	7.62E-02	1.33E+01	6.26E+01

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
Xe133	Ci	0.00E+00	0.00E+00	2.13E-05	0.00E+00

May, 2000
Re: Indian Point Unit Nos. 1 & 2
Docket Nos. 50-03 & 50-247

ANNUAL
EFFLUENT AND WASTE DISPOSAL REPORT
D - SOLID WASTE
1999

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NOS. 1 & 2
DOCKET NOS. 50-03 & 50-247
MAY, 2000

Solid Radwaste Disposal Report 1999. Solid Radwaste Shipped Offsite for Burial, Reprocessing, or Disposal (No irradiated fuel).

12 MONTH PERIOD

1.	<u>Type of Waste</u>	<u>Units</u>	<u>Class A</u>	<u>Class B</u>	<u>Class C</u>	<u>Error, %</u>
a.	Spent Resins,	m ³	11.66	15.06	0	-50/+100
	sludges, etc.	Ci	7.76	111.04	0	25
b.	DAW	m ³	925.92	0	0	± 10
		Ci	1.81	0	0	25
c.	Irradiated	m ³	0	0	0	± 10
	components control rods, etc.	Ci	0	0	0	25

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

a.	Cs-137	-	95	c.	Cs-137	-	N/A
	Ni-63	-	1		Ni-63	-	N/A
	Cs-134	-	3		Sr-90	-	N/A
	Other	-	1		Sr-89	-	N/A
					Other	-	N/A
b.	Cs-137	-	75				
	Co-60	-	20				
	Ni-63	-	3				
	Other	-	2				

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
5	Cask Truck	Barnwell, SC
26	Flat Bed Truck/Van	Oak Ridge, TN

4. Solid Waste Containers

- A. 10 High Integrity Containers
- B. 19 Cargo Container
- C. 635 55 Gallon Metal Drums
- D. 12 Metal Crates

May, 2000
Re: Indian Point Unit Nos. 1 & 2
Docket Nos. 50-03 & 50-247

5. Waste Class

<u>Container</u>	<u>Class A</u>	<u>Class B</u>	<u>Class C</u>
High Integrity Containers	10	3	0
Cargo Containers	19	0	0
55 Gallon Metal Drums	635	0	0
Metal Crates	12	0	0

Note: Items 4B and 4D are the number of containers shipped offsite for recycle and volume reduction not the total number of containers buried.

Note: Curies in item 1 are measured using the Radman Software Program.

May, 2000
Re: Indian Point Unit Nos. 1 & 2
Docket Nos. 50-03 & 50-247

ANNUAL
EFFLUENT AND WASTE DISPOSAL REPORT
E - RADIOLOGICAL IMPACT ON MAN
1999

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NOS. 1 & 2
DOCKET NOS. 50-03 & 50-247
MAY, 2000

May, 2000
Re: Indian Point Unit Nos. 1 & 2
Docket Nos. 50-03 & 50-247

RADIOLOGICAL IMPACT EVALUATION

Doses from gaseous immersion, inhalation, ground deposition, and vegetation ingestion were evaluated for the nearest residence likely to be occupied in the critical sector for each pathway and were combined to provide a conservative determination of the maximum individual offsite radiation dose from these pathways. Calculations were performed for members of the public on site for this reporting period. To this end, it is assumed that members of the public on-site are exposed 2 hours per year. Based on an assumed on-site location most likely to be occupied, a gaseous effluent dispersion factor is obtained. The dose is then computed with consideration for the total effluents released, the on-site dispersion factor and the exposure time. Doses to such individuals were found to be significantly less than one percent of the maximum individual offsite dose. Doses were also evaluated for all sectors assuming an individual ingesting milk and meat from a cow located at 5.0 mile distance. In all cases these evaluations were performed using the models presented in Regulatory Guide 1.109.

All releases were evaluated using actual meteorological conditions existing during the release period.

Integrated dose from the population within 50 miles of Indian Point from gaseous effluents were computed based on the most current population data.*

Dose calculations for liquid pathways to individuals and populations are computed for a year. The MIDAS computer program that is utilized for these calculations incorporated the calculation model and parameters that are presented in Regulatory Guide 1.109.

The fish, invertebrate, algae, drinking, shoreline, swimming and boating pathways are calculated for the adult, teenager, child and infant. These calculations are performed for reasons such as estimating the population water consumption dose, the population recreation dose.

NUREG-0017, "Calculation of Release of Radioactive Materials in Gaseous and Liquid Effluents from Pressurized Water Reactors", assumes an annual release of 8.0 Ci/yr of Carbon-14. Therefore, to be consistent with NUREG-0017, a release of 7 Curies of Carbon-14 was assumed for the year, (adjusted for actual power operating capacity) in addition to the radioactive materials measured in Indian Point's gaseous effluents.

This impact evaluation demonstrates that the dose commitment to man from the operation of Indian Point Unit Nos. 1 and 2 is negligible, and is well below the levels set forth in 10 CFR 20, 10 CFR 50, and the Indian Point Unit Nos. 1 and 2 Technical Specifications.

* Population data was based on the 1990 census.

May, 2000
Re: Indian Point Unit Nos. 1 & 2
Docket Nos. 50-03 & 50-24

1999

INDIAN POINT UNITS 1 AND 2

RADIOLOGICAL IMPACT ON MAN*

(Reference Regulatory Guide 1.21, Page 12)

A. Maximum Individual Doses

(1) <u>Pathways</u> (Gaseous)	<u>Total Body</u> Person-rem	<u>Skin</u> Person-rem	<u>Thyroid</u> Person-rem	<u>Bone</u> Person-rem
a) Noble Gas Immersion	7.74E-4	1.38E-3	N/A	N/A
b) Inhalation	4.15E-3	N/A	4.13E-3	2.02E-2
c) Ground Deposition	2.33E-2	2.73E-2	2.33E-2	2.33E-2
d) Milk Ingestion	3.41E-2	N/A	3.40E-2	1.72E-1
e) Meat Ingestion	1.10E-2	N/A	1.09E-2	5.47E-2
f) Vegetable Ingestion	2.05E-1	N/A	2.04E-1	1.03E+0

May, 2000
 Re: Indian Point Unit Nos. 1 & 2
 Docket Nos. 50-03 & 50-24

(2) Pathways (Liquid)

Maximum Dose to Individuals 1999 millirem:

	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI	SKIN
Shore Exposure								
ADULT	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.90E-04
TEEN	6.80E-04	6.80E-04	6.80E-04	6.80E-04	6.80E-04	6.80E-04	6.80E-04	8.00E-04
CHILD	1.40E-04	1.40E-04	1.40E-04	1.40E-04	1.40E-04	1.40E-04	1.40E-04	1.70E-04
Fresh Water Sport Fish								
ADULT	1.70E-02	1.90E-02	1.30E-02	2.50E-04	6.60E-03	2.30E-03	6.90E-04	0.00E+00
TEEN	1.70E-02	2.00E-02	7.60E-03	2.00E-04	6.80E-03	2.70E-03	5.30E-04	0.00E+00
CHILD	2.10E-02	1.80E-02	3.30E-03	1.70E-04	5.90E-03	2.20E-03	2.80E-04	0.00E+00
Fresh Water Invertebrate								
ADULT	5.70E-03	4.60E-03	3.60E-03	5.10E-05	1.60E-03	5.60E-04	4.10E-04	0.00E+00
TEEN	5.50E-03	4.80E-03	2.10E-03	4.00E-05	1.60E-03	6.60E-04	3.00E-04	0.00E+00
CHILD	6.40E-03	4.50E-03	1.10E-03	3.50E-05	1.50E-03	5.50E-04	1.30E-04	0.00E+00
Total All Pathways								
ADULT	2.30E-02	2.40E-02	1.70E-02	8.10E-04	8.60E-03	3.40E-03	1.60E-03	5.90E-04
TEEN	2.40E-02	2.50E-02	1.00E-02	9.20E-04	9.10E-03	4.10E-03	1.50E-03	8.00E-04
CHILD	2.80E-02	2.20E-02	4.60E-03	3.50E-04	7.50E-03	2.90E-03	5.50E-04	1.70E-04

N/A = Not Applicable

* See analogous NYPA Effluent report for Indian Point Unit No. 3 to calculate a combined dose to the public.

1999

B. Population

(1)	<u>Pathways</u> (Gaseous)		
		<u>Total Body</u> (Person-rem)	<u>Thyroid</u> (Person-rem)
	a) Noble Gas Immersion	1.0E-2	1.0E-2
	b) Inhalation	1.0E+0	1.0E+0
	c) Ground Deposition	1.8E+0	1.8E+0
	d) Totals	2.9E+0	2.9E+0

The thyroid values consist of a sum of total body and thyroid.

(2) Pathways (Liquid) Liquid Population Dose 1999 Person-rem:

	Shore Exposure	Fresh Water Sport Fish Ingestion	Commercial Fish Ingestion	Fresh Water Invertebrate Ingestion
Bone	0.12	6.40E-02	1.10E-01	1.10E-02
Liver	0.12	6.80E-02	1.20E-01	8.40E-03
Total Body	0.12	3.90E-02	6.70E-02	5.40E-03
Thyroid	0.12	7.60E-04	1.30E-03	8.40E-05
Kidney	0.12	2.30E-02	4.00E-02	2.90E-03
Lung	0.12	8.40E-03	1.40E-02	1.00E-03
GI	0.12	2.20E-03	3.70E-03	6.40E-04
Skin	0.14	0	0	0

C. Average Dose to Individuals

- (1) Pathways
- a) Liquid-Total Body 1.49E-5 millirem
 - b) Gaseous-Total Body 1.87E-4 millirem

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.2	1.0	15.0	35.0	6.0	.0	.0	57.2
NNE	.2	1.0	1.0	.0	1.0	.0	.0	3.2
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.2	1.0	.0	.0	.0	.0	.0	1.2
SE	.5	2.0	.0	.0	.0	.0	.0	2.5
SSE	.9	4.0	5.0	2.0	.0	.0	.0	11.9
S	.2	1.0	4.0	1.0	.0	.0	.0	6.2
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.5	2.0	3.0	3.0	.0	.0	.0	8.5
WSW	.0	.0	3.0	3.0	.0	.0	.0	6.0
W	.0	.0	3.0	6.0	.0	.0	.0	9.0
WNW	.2	1.0	8.0	13.0	.0	.0	.0	22.2
NW	.0	.0	12.0	17.0	.0	.0	.0	29.0
NNW	.0	.0	14.0	6.0	.0	.0	.0	20.0
TOTAL	3.0	13.0	68.0	86.0	7.0	.0	.0	177.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 15
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2144

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	2.0	11.0	13.0	1.0	.0	.0	27.0
NNE	.0	1.0	2.0	1.0	.0	.0	.0	4.0
NE	.0	1.0	.0	3.0	.0	.0	.0	4.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	1.0	.0	.0	.0	.0	.0	1.0
ESE	.0	1.0	.0	.0	.0	.0	.0	1.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	9.0	.0	.0	.0	.0	9.0
S	.0	.0	1.0	3.0	.0	.0	.0	4.0
SSW	.0	1.0	1.0	1.0	.0	.0	.0	3.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	2.0	4.0	.0	.0	.0	.0	6.0
W	.0	1.0	3.0	5.0	.0	.0	.0	9.0
WNW	.0	1.0	2.0	5.0	.0	.0	.0	8.0
NW	.0	.0	5.0	5.0	.0	.0	.0	10.0
NNW	.0	2.0	6.0	4.0	.0	.0	.0	12.0
TOTAL	.0	13.0	44.0	40.0	1.0	.0	.0	98.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 15
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2144

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.3	3.0	20.0	10.0	1.0	.0	.0	34.3
NNE	.1	1.0	4.0	2.0	.0	.0	.0	7.1
NE	.2	2.0	.0	2.0	.0	.0	.0	4.2
ENE	.1	1.0	1.0	.0	.0	.0	.0	2.1
E	.2	2.0	.0	.0	.0	.0	.0	2.2
ESE	.1	1.0	.0	.0	.0	.0	.0	1.1
SE	.2	2.0	.0	.0	.0	.0	.0	2.2
SSE	.0	.0	1.0	.0	.0	.0	.0	1.0
S	.1	1.0	7.0	2.0	.0	.0	.0	10.1
SSW	.0	.0	2.0	1.0	.0	.0	.0	3.0
SW	.3	3.0	.0	3.0	.0	.0	.0	6.3
WSW	.0	.0	1.0	1.0	.0	.0	.0	2.0
W	.0	.0	2.0	2.0	.0	.0	.0	4.0
WNW	.1	1.0	4.0	3.0	.0	.0	.0	8.1
NW	.2	2.0	6.0	7.0	.0	.0	.0	15.2
NNW	.1	1.0	8.0	2.0	.0	.0	.0	11.1
TOTAL	2.0	20.0	56.0	35.0	1.0	.0	.0	114.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 15
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2144

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.1	22.0	159.0	104.0	7.0	.0	.0	292.1
NNE	.1	28.0	90.0	40.0	4.0	.0	.0	162.1
NE	.1	15.0	16.0	2.0	.0	.0	.0	33.1
ENE	.1	15.0	2.0	.0	.0	.0	.0	17.1
E	.0	10.0	.0	.0	.0	.0	.0	10.0
ESE	.0	6.0	.0	.0	.0	.0	.0	6.0
SE	.0	11.0	4.0	1.0	.0	.0	.0	16.0
SSE	.1	20.0	19.0	13.0	1.0	.0	.0	53.1
S	.1	12.0	34.0	10.0	4.0	.0	.0	60.1
SSW	.1	16.0	26.0	4.0	.0	.0	.0	46.1
SW	.1	16.0	11.0	6.0	.0	.0	.0	33.1
WSW	.1	14.0	17.0	4.0	1.0	.0	.0	36.1
W	.0	11.0	48.0	11.0	.0	.0	.0	70.0
WNW	.0	6.0	41.0	29.0	1.0	.0	.0	77.0
NW	.0	11.0	67.0	50.0	4.0	.0	.0	132.0
NNW	.1	12.0	90.0	41.0	.0	.0	.0	143.1
TOTAL	1.0	225.0	624.0	315.0	22.0	.0	.0	1187.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 15
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2144

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.3	13.0	9.0	11.0	.0	.0	.0	33.3
NNE	1.0	39.0	31.0	9.0	.0	.0	.0	80.0
NE	.5	18.0	14.0	.0	.0	.0	.0	32.5
ENE	.3	13.0	4.0	.0	.0	.0	.0	17.3
E	.2	8.0	1.0	.0	.0	.0	.0	9.2
ESE	.2	6.0	.0	.0	.0	.0	.0	6.2
SE	.2	9.0	.0	.0	.0	.0	.0	9.2
SSE	.3	12.0	13.0	3.0	.0	.0	.0	28.3
S	.4	14.0	24.0	2.0	3.0	.0	.0	43.4
SSW	.4	14.0	5.0	1.0	.0	.0	.0	20.4
SW	.2	9.0	2.0	.0	.0	.0	.0	11.2
WSW	.2	8.0	2.0	.0	.0	.0	.0	10.2
W	.2	9.0	4.0	1.0	1.0	.0	.0	15.2
WNW	.2	6.0	9.0	.0	.0	.0	.0	15.2
NW	.2	8.0	12.0	4.0	.0	.0	.0	24.2
NNW	.3	10.0	10.0	.0	.0	.0	.0	20.3
TOTAL	5.0	196.0	140.0	31.0	4.0	.0	.0	376.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 15
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2144

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	1.3	19.0	.0	.0	.0	.0	.0	20.3
NNE	2.7	39.0	7.0	.0	.0	.0	.0	48.7
NE	.6	8.0	7.0	.0	.0	.0	.0	15.6
ENE	.4	6.0	.0	.0	.0	.0	.0	6.4
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.2	3.0	.0	.0	.0	.0	.0	3.2
SSE	.6	8.0	1.0	.0	.0	.0	.0	9.6
S	.1	2.0	1.0	.0	.0	.0	.0	3.1
SSW	.3	4.0	.0	.0	.0	.0	.0	4.3
SW	.3	4.0	1.0	.0	.0	.0	.0	5.3
WSW	.5	7.0	.0	1.0	.0	.0	.0	8.5
W	.3	4.0	2.0	.0	.0	.0	.0	6.3
WNW	.1	2.0	.0	.0	.0	.0	.0	2.1
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.6	8.0	1.0	.0	.0	.0	.0	9.6
TOTAL	8.0	114.0	20.0	1.0	.0	.0	.0	143.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 15
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2144

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	1.0	11.0	.0	.0	.0	.0	.0	12.0
NNE	1.5	16.0	2.0	.0	.0	.0	.0	19.5
NE	.2	2.0	.0	.0	.0	.0	.0	2.2
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.1	1.0	.0	.0	.0	.0	.0	1.1
ESE	.1	1.0	.0	.0	.0	.0	.0	1.1
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.2	2.0	.0	.0	.0	.0	.0	2.2
SW	.1	1.0	.0	.0	.0	.0	.0	1.1
WSW	.1	1.0	1.0	.0	.0	.0	.0	2.1
W	.1	1.0	.0	.0	.0	.0	.0	1.1
WNW	.1	1.0	.0	.0	.0	.0	.0	1.1
NW	.1	1.0	.0	.0	.0	.0	.0	1.1
NNW	.4	4.0	.0	.0	.0	.0	.0	4.4
TOTAL	4.0	42.0	3.0	.0	.0	.0	.0	49.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 15
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2144

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	3.3	71.0	214.0	173.0	15.0	.0	.0	476.3
NNE	5.7	125.0	137.0	52.0	5.0	.0	.0	324.7
NE	1.5	46.0	37.0	7.0	.0	.0	.0	91.5
ENE	.9	35.0	7.0	.0	.0	.0	.0	42.9
E	.5	22.0	1.0	.0	.0	.0	.0	23.5
ESE	.6	16.0	.0	.0	.0	.0	.0	16.6
SE	1.2	27.0	4.0	1.0	.0	.0	.0	33.2
SSE	1.9	44.0	48.0	18.0	1.0	.0	.0	112.9
S	.9	30.0	71.0	18.0	7.0	.0	.0	126.9
SSW	.9	37.0	34.0	7.0	.0	.0	.0	78.9
SW	1.4	35.0	17.0	12.0	.0	.0	.0	65.4
WSW	.9	32.0	28.0	9.0	1.0	.0	.0	70.9
W	.7	26.0	62.0	25.0	1.0	.0	.0	114.7
WNW	.7	18.0	64.0	50.0	1.0	.0	.0	133.7
NW	.5	22.0	102.0	83.0	4.0	.0	.0	211.5
NNW	1.4	37.0	129.0	53.0	.0	.0	.0	220.4
TOTAL	23.0	623.0	955.0	508.0	35.0	.0	.0	2144.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 15
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2144

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	1.0	11.0	27.0	7.0	9.0	55.0
NNE	.0	.0	4.0	.0	.0	1.0	.0	5.0
NE	.0	1.0	2.0	.0	.0	.0	.0	3.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	2.0	.0	.0	.0	.0	2.0
SE	.0	1.0	1.0	.0	.0	.0	.0	2.0
SSE	.0	.0	6.0	1.0	2.0	.0	.0	9.0
S	.0	.0	2.0	4.0	.0	.0	.0	6.0
SSW	.0	1.0	1.0	.0	.0	.0	.0	2.0
SW	.0	.0	.0	2.0	1.0	.0	.0	3.0
WSW	.0	.0	1.0	4.0	2.0	3.0	.0	10.0
W	.0	.0	.0	1.0	4.0	2.0	1.0	8.0
WNW	.0	.0	.0	7.0	7.0	3.0	2.0	19.0
NW	.0	.0	.0	7.0	9.0	11.0	4.0	31.0
NNW	.0	.0	.0	9.0	11.0	2.0	1.0	23.0
TOTAL	.0	3.0	20.0	46.0	63.0	29.0	17.0	178.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 10
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2150

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	4.0	8.0	10.0	4.0	1.0	27.0
NNE	.0	.0	1.0	1.0	.0	.0	.0	2.0
NE	.0	.0	1.0	.0	3.0	.0	.0	4.0
ENE	.0	.0	.0	.0	1.0	.0	.0	1.0
E	.0	.0	1.0	.0	.0	.0	.0	1.0
ESE	.0	.0	1.0	.0	.0	.0	.0	1.0
SE	.0	1.0	.0	.0	.0	.0	.0	1.0
SSE	.0	2.0	1.0	8.0	.0	.0	.0	11.0
S	.0	.0	3.0	1.0	2.0	.0	.0	6.0
SSW	.0	.0	.0	1.0	1.0	.0	.0	2.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	3.0	.0	2.0	.0	.0	5.0
W	.0	.0	2.0	2.0	3.0	1.0	2.0	10.0
WNW	.0	.0	2.0	.0	3.0	2.0	.0	7.0
NW	.0	.0	4.0	3.0	1.0	4.0	.0	12.0
NNW	.0	.0	2.0	1.0	4.0	5.0	.0	12.0
TOTAL	.0	3.0	25.0	25.0	30.0	16.0	3.0	102.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 10
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2150

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.1	1.0	5.0	11.0	11.0	3.0	2.0	33.1
NNE	.1	1.0	3.0	4.0	.0	.0	.0	8.1
NE	.1	1.0	1.0	2.0	1.0	.0	.0	5.1
ENE	.2	2.0	.0	.0	.0	.0	.0	2.2
E	.0	.0	5.0	.0	.0	.0	.0	5.0
ESE	.1	1.0	2.0	.0	.0	.0	.0	3.1
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.1	1.0	.0	1.0	.0	.0	.0	2.1
S	.1	1.0	7.0	2.0	1.0	.0	.0	11.1
SSW	.0	.0	1.0	2.0	.0	.0	.0	3.0
SW	.0	.0	1.0	1.0	.0	3.0	1.0	6.0
WSW	.0	.0	1.0	.0	.0	1.0	.0	2.0
W	.0	.0	1.0	.0	1.0	1.0	.0	3.0
WNW	.1	1.0	1.0	1.0	4.0	1.0	.0	8.1
NW	.0	.0	.0	6.0	3.0	2.0	1.0	12.0
NNW	.0	.0	1.0	5.0	4.0	1.0	.0	11.0
TOTAL	1.0	9.0	29.0	35.0	25.0	12.0	4.0	115.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 10
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2150

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.1	11.0	39.0	93.0	135.0	31.0	11.0	320.1
NNE	.1	7.0	64.0	50.0	9.0	1.0	.0	131.1
NE	.1	6.0	10.0	2.0	5.0	1.0	.0	24.1
ENE	.1	9.0	7.0	1.0	.0	.0	.0	17.1
E	.0	2.0	9.0	1.0	.0	.0	.0	12.0
ESE	.1	4.0	3.0	3.0	.0	.0	.0	10.1
SE	.0	2.0	10.0	2.0	5.0	.0	.0	19.0
SSE	.1	5.0	13.0	11.0	6.0	8.0	.0	43.1
S	.1	9.0	24.0	22.0	3.0	2.0	2.0	62.1
SSW	.0	1.0	23.0	18.0	8.0	1.0	.0	51.0
SW	.0	1.0	6.0	12.0	7.0	3.0	.0	29.0
WSW	.1	4.0	10.0	13.0	3.0	4.0	2.0	36.1
W	.1	5.0	16.0	28.0	19.0	4.0	1.0	73.1
WNW	.0	2.0	4.0	27.0	31.0	14.0	2.0	80.0
NW	.1	4.0	5.0	26.0	73.0	32.0	7.0	147.1
NNW	.1	7.0	9.0	35.0	70.0	11.0	.0	132.1
TOTAL	1.0	79.0	252.0	344.0	374.0	112.0	25.0	1187.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 10
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2150

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	14.0	25.0	9.0	7.0	11.0	.0	66.0
NNE	.0	8.0	38.0	16.0	1.0	.0	.0	63.0
NE	.0	1.0	4.0	2.0	.0	.0	.0	7.0
ENE	.0	6.0	3.0	1.0	.0	.0	.0	10.0
E	.0	1.0	7.0	2.0	.0	.0	.0	10.0
ESE	.0	4.0	2.0	.0	.0	.0	.0	6.0
SE	.0	6.0	3.0	1.0	.0	1.0	.0	11.0
SSE	.0	10.0	16.0	10.0	4.0	.0	.0	40.0
S	.0	7.0	9.0	12.0	5.0	2.0	2.0	37.0
SSW	.0	4.0	5.0	15.0	5.0	.0	.0	29.0
SW	.0	5.0	1.0	3.0	4.0	2.0	.0	15.0
WSW	.0	3.0	3.0	3.0	.0	.0	.0	9.0
W	.0	2.0	4.0	4.0	3.0	.0	1.0	14.0
WNW	.0	2.0	6.0	5.0	5.0	.0	.0	18.0
NW	.0	1.0	2.0	7.0	11.0	3.0	.0	24.0
NNW	.0	3.0	4.0	7.0	3.0	.0	.0	17.0
TOTAL	.0	77.0	132.0	97.0	48.0	19.0	3.0	376.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 10
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2150

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	5.0	7.0	.0	.0	.0	.0	12.0
NNE	.0	14.0	12.0	3.0	.0	.0	.0	29.0
NE	.0	4.0	1.0	.0	.0	.0	.0	5.0
ENE	.0	2.0	1.0	.0	.0	.0	.0	3.0
E	.0	3.0	.0	.0	.0	.0	.0	3.0
ESE	.0	3.0	.0	.0	.0	.0	.0	3.0
SE	.0	3.0	1.0	.0	.0	.0	.0	4.0
SSE	.0	4.0	9.0	1.0	.0	.0	.0	14.0
S	.0	8.0	2.0	1.0	1.0	.0	.0	12.0
SSW	.0	4.0	6.0	4.0	.0	.0	.0	14.0
SW	.0	6.0	2.0	3.0	.0	.0	.0	11.0
WSW	.0	2.0	5.0	1.0	.0	.0	.0	8.0
W	.0	3.0	3.0	2.0	1.0	.0	.0	9.0
WNW	.0	2.0	1.0	1.0	.0	.0	.0	4.0
NW	.0	4.0	3.0	2.0	.0	.0	.0	9.0
NNW	.0	3.0	.0	.0	.0	.0	.0	3.0
TOTAL	.0	70.0	53.0	18.0	2.0	.0	.0	143.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 10
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2150

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	3.0	7.0	.0	.0	.0	.0	10.0
NNE	.0	3.0	10.0	.0	.0	.0	.0	13.0
NE	.0	1.0	.0	.0	.0	.0	.0	1.0
ENE	.0	2.0	.0	.0	.0	.0	.0	2.0
E	.0	2.0	.0	.0	.0	.0	.0	2.0
ESE	.0	3.0	.0	.0	.0	.0	.0	3.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	1.0	.0	.0	.0	.0	1.0
S	.0	2.0	1.0	.0	.0	.0	.0	3.0
SSW	.0	1.0	1.0	.0	.0	.0	.0	2.0
SW	.0	1.0	2.0	.0	.0	.0	.0	3.0
WSW	.0	.0	5.0	1.0	.0	.0	.0	6.0
W	.0	.0	.0	.0	1.0	.0	.0	1.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	1.0	.0	.0	.0	1.0
NNW	.0	1.0	.0	.0	.0	.0	.0	1.0
TOTAL	.0	19.0	27.0	2.0	1.0	.0	.0	49.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 10
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2150

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.3	34.0	88.0	132.0	190.0	56.0	23.0	523.3
NNE	.2	33.0	132.0	74.0	10.0	2.0	.0	251.2
NE	.2	14.0	19.0	6.0	9.0	1.0	.0	49.2
ENE	.3	21.0	11.0	2.0	1.0	.0	.0	35.3
E	.0	8.0	22.0	3.0	.0	.0	.0	33.0
ESE	.2	15.0	10.0	3.0	.0	.0	.0	28.2
SE	.0	13.0	15.0	3.0	5.0	1.0	.0	37.0
SSE	.2	22.0	46.0	32.0	12.0	8.0	.0	120.2
S	.2	27.0	48.0	42.0	12.0	4.0	4.0	137.2
SSW	.0	11.0	37.0	40.0	14.0	1.0	.0	103.0
SW	.0	13.0	12.0	21.0	12.0	8.0	1.0	67.0
WSW	.1	9.0	28.0	22.0	7.0	8.0	2.0	76.1
W	.1	10.0	26.0	37.0	32.0	8.0	5.0	118.1
WNW	.1	7.0	14.0	41.0	50.0	20.0	4.0	136.1
NW	.1	9.0	14.0	52.0	97.0	52.0	12.0	236.1
NNW	.1	14.0	16.0	57.0	92.0	19.0	1.0	199.1
TOTAL	2.0	260.0	538.0	567.0	543.0	188.0	52.0	2150.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 10
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2150

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	.0	.0	1.0	1.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.0	.0	.0	.0	1.0	1.0	.0	2.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.0	.0	.0	.0	1.0	.0	.0	1.0
TOTAL	.0	.0	.0	.0	2.0	1.0	1.0	4.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 3
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2156

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	2.0	11.0	1.0	5.0	19.0
NNE	.0	.0	.0	.0	.0	1.0	.0	1.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	2.0	1.0	.0	.0	3.0
WSW	.0	.0	.0	1.0	.0	.0	.0	1.0
W	.0	.0	.0	1.0	.0	1.0	.0	2.0
WNW	.0	.0	.0	3.0	.0	1.0	.0	4.0
NW	.0	.0	.0	1.0	2.0	1.0	.0	4.0
NNW	.0	.0	.0	1.0	1.0	1.0	.0	3.0
TOTAL	.0	.0	.0	11.0	15.0	6.0	5.0	37.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 3
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2156

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	1.0	9.0	25.0	6.0	6.0	47.0
NNE	.0	.0	.0	1.0	.0	.0	.0	1.0
NE	.0	.0	.0	1.0	3.0	.0	.0	4.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	2.0	1.0	.0	.0	3.0
SSW	.0	.0	1.0	.0	.0	.0	.0	1.0
SW	.0	.0	.0	1.0	.0	2.0	.0	3.0
WSW	.0	.0	1.0	1.0	.0	2.0	.0	4.0
W	.0	.0	.0	.0	1.0	4.0	.0	5.0
WNW	.0	.0	.0	3.0	8.0	6.0	6.0	23.0
NW	.0	.0	.0	1.0	5.0	6.0	4.0	16.0
NNW	.0	.0	.0	4.0	8.0	2.0	2.0	16.0
TOTAL	.0	.0	3.0	23.0	51.0	28.0	18.0	123.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 3
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2156

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	3.0	23.0	77.0	134.0	61.0	24.0	322.0
NNE	.0	5.0	40.0	63.0	13.0	6.0	2.0	129.0
NE	.0	6.0	13.0	7.0	8.0	1.0	.0	35.0
ENE	.0	8.0	6.0	2.0	.0	.0	.0	16.0
E	.0	5.0	7.0	2.0	1.0	.0	.0	15.0
ESE	.0	4.0	8.0	6.0	2.0	.0	.0	20.0
SE	.0	5.0	9.0	5.0	3.0	2.0	1.0	25.0
SSE	.0	4.0	22.0	13.0	6.0	5.0	3.0	53.0
S	.0	4.0	31.0	30.0	13.0	.0	4.0	82.0
SSW	.0	8.0	11.0	19.0	22.0	1.0	1.0	62.0
SW	.0	3.0	6.0	13.0	8.0	13.0	5.0	48.0
WSW	.0	4.0	7.0	15.0	6.0	5.0	2.0	39.0
W	.0	2.0	14.0	32.0	29.0	19.0	7.0	103.0
WNW	.0	2.0	8.0	17.0	48.0	32.0	13.0	120.0
NW	.0	1.0	10.0	30.0	73.0	62.0	9.0	185.0
NNW	.0	1.0	12.0	26.0	72.0	39.0	11.0	161.0
TOTAL	.0	65.0	227.0	357.0	438.0	246.0	82.0	1415.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 3
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2156

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	4.0	11.0	20.0	8.0	11.0	.0	54.0
NNE	.0	3.0	16.0	10.0	4.0	.0	.0	33.0
NE	.0	5.0	17.0	7.0	1.0	.0	.0	30.0
ENE	.0	4.0	12.0	.0	1.0	.0	.0	17.0
E	.0	5.0	7.0	6.0	.0	.0	.0	18.0
ESE	.0	7.0	15.0	7.0	1.0	.0	.0	30.0
SE	.0	5.0	6.0	1.0	2.0	1.0	1.0	16.0
SSE	.0	8.0	13.0	7.0	6.0	4.0	3.0	41.0
S	.0	8.0	14.0	15.0	5.0	.0	.0	42.0
SSW	.0	10.0	12.0	9.0	9.0	.0	.0	40.0
SW	.0	5.0	2.0	4.0	3.0	.0	.0	14.0
WSW	.0	3.0	3.0	3.0	1.0	.0	.0	10.0
W	.0	2.0	6.0	8.0	2.0	2.0	.0	20.0
WNW	.0	3.0	6.0	5.0	4.0	1.0	.0	19.0
NW	.0	3.0	6.0	3.0	2.0	1.0	.0	15.0
NNW	.0	3.0	8.0	7.0	1.0	.0	.0	19.0
TOTAL	.0	78.0	154.0	112.0	50.0	20.0	4.0	418.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 3
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2156

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	2.0	.0	.0	.0	.0	.0	2.0
NNE	.0	2.0	4.0	1.0	.0	.0	.0	7.0
NE	.0	2.0	1.0	.0	.0	.0	.0	3.0
ENE	.1	4.0	.0	.0	.0	.0	.0	4.1
E	.1	6.0	.0	.0	.0	.0	.0	6.1
ESE	.1	7.0	.0	.0	.0	.0	.0	7.1
SE	.1	7.0	.0	1.0	.0	.0	.0	8.1
SSE	.1	6.0	7.0	7.0	1.0	.0	.0	21.1
S	.1	8.0	11.0	3.0	2.0	2.0	4.0	30.1
SSW	.0	2.0	10.0	7.0	1.0	.0	.0	20.0
SW	.1	5.0	5.0	6.0	.0	.0	.0	16.1
WSW	.1	3.0	3.0	2.0	.0	.0	.0	8.1
W	.0	.0	2.0	2.0	.0	.0	.0	4.0
WNW	.0	2.0	4.0	.0	1.0	1.0	.0	8.0
NW	.0	1.0	.0	.0	1.0	.0	.0	2.0
NNW	.0	2.0	1.0	1.0	.0	.0	.0	4.0
TOTAL	1.0	59.0	48.0	30.0	6.0	3.0	4.0	151.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 3
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2156

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	1.0	.0	.0	.0	.0	1.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	1.0	.0	.0	.0	.0	1.0
SSW	.0	.0	.0	1.0	.0	.0	.0	1.0
SW	.0	1.0	.0	3.0	.0	.0	.0	4.0
WSW	.0	.0	.0	1.0	.0	.0	.0	1.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	.0	1.0	2.0	5.0	.0	.0	.0	8.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 3
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2156

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JAN/FEB/MAR 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 1/ 1/ 0] TO [1999/ 3/31/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	9.0	35.0	108.0	178.0	79.0	36.0	445.0
NNE	.0	10.0	60.0	75.0	17.0	7.0	2.0	171.0
NE	.0	13.0	31.0	15.0	12.0	1.0	.0	72.0
ENE	.1	16.0	18.0	2.0	1.0	.0	.0	37.1
E	.1	16.0	14.0	8.0	1.0	.0	.0	39.1
ESE	.1	18.0	24.0	13.0	3.0	.0	.0	58.1
SE	.1	17.0	15.0	7.0	5.0	3.0	2.0	49.1
SSE	.1	18.0	42.0	27.0	13.0	9.0	6.0	115.1
S	.1	20.0	57.0	50.0	21.0	2.0	8.0	158.1
SSW	.0	20.0	34.0	36.0	32.0	1.0	1.0	124.0
SW	.1	14.0	13.0	29.0	12.0	15.0	5.0	88.1
WSW	.1	10.0	14.0	23.0	7.0	7.0	2.0	63.1
W	.0	4.0	22.0	43.0	32.0	26.0	7.0	134.0
WNW	.0	7.0	18.0	28.0	62.0	42.0	19.0	176.0
NW	.0	5.0	16.0	35.0	83.0	70.0	13.0	222.0
NNW	.0	6.0	21.0	39.0	83.0	42.0	13.0	204.0
TOTAL	1.0	203.0	434.0	538.0	562.0	304.0	114.0	2156.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 3
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2156

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	32.0	37.0	1.0	.0	.0	70.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	1.0	2.0	.0	.0	.0	3.0
E	.0	.0	1.0	.0	.0	.0	.0	1.0
ESE	.0	.0	1.0	.0	.0	.0	.0	1.0
SE	.0	1.0	4.0	.0	.0	.0	.0	5.0
SSE	.0	2.0	33.0	7.0	.0	.0	.0	42.0
S	.0	1.0	32.0	37.0	.0	.0	.0	70.0
SSW	.0	.0	8.0	5.0	.0	.0	.0	13.0
SW	.0	1.0	9.0	1.0	.0	.0	.0	11.0
WSW	.0	4.0	15.0	1.0	.0	.0	.0	20.0
W	.0	.0	25.0	6.0	.0	.0	.0	31.0
WNW	.0	.0	16.0	7.0	.0	.0	.0	23.0
NW	.0	.0	8.0	18.0	.0	.0	.0	26.0
NNW	.0	.0	30.0	7.0	.0	.0	.0	37.0
TOTAL	.0	9.0	215.0	128.0	1.0	.0	.0	353.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	3.0	26.0	7.0	.0	.0	.0	36.0
NNE	.0	.0	1.0	1.0	.0	.0	.0	2.0
NE	.0	1.0	1.0	.0	.0	.0	.0	2.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	2.0	.0	.0	.0	.0	.0	2.0
SE	.0	3.0	.0	.0	.0	.0	.0	3.0
SSE	.0	4.0	10.0	.0	.0	.0	.0	14.0
S	.0	2.0	16.0	2.0	.0	.0	.0	20.0
SSW	.0	2.0	9.0	3.0	.0	.0	.0	14.0
SW	.0	1.0	2.0	.0	.0	.0	.0	3.0
WSW	.0	.0	4.0	.0	.0	.0	.0	4.0
W	.0	.0	3.0	.0	.0	.0	.0	3.0
WNW	.0	1.0	1.0	1.0	.0	.0	.0	3.0
NW	.0	.0	2.0	2.0	.0	.0	.0	4.0
NNW	.0	1.0	5.0	4.0	.0	.0	.0	10.0
TOTAL	.0	20.0	80.0	20.0	.0	.0	.0	120.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.1	2.0	21.0	5.0	1.0	.0	.0	29.1
NNE	.1	3.0	8.0	2.0	1.0	.0	.0	14.1
NE	.0	1.0	.0	1.0	.0	.0	.0	2.0
ENE	.1	2.0	.0	.0	.0	.0	.0	2.1
E	.1	3.0	.0	.0	.0	.0	.0	3.1
ESE	.1	4.0	.0	.0	.0	.0	.0	4.1
SE	.1	2.0	.0	.0	.0	.0	.0	2.1
SSE	.1	2.0	14.0	1.0	.0	.0	.0	17.1
S	.2	6.0	17.0	3.0	.0	.0	.0	26.2
SSW	.1	4.0	5.0	1.0	.0	.0	.0	10.1
SW	.0	1.0	1.0	3.0	.0	.0	.0	5.0
WSW	.0	.0	2.0	.0	.0	.0	.0	2.0
W	.1	2.0	3.0	1.0	.0	.0	.0	6.1
WNW	.0	1.0	1.0	1.0	.0	.0	.0	3.0
NW	.1	2.0	5.0	1.0	.0	.0	.0	8.1
NNW	.1	2.0	4.0	1.0	.0	.0	.0	7.1
TOTAL	1.0	37.0	81.0	20.0	2.0	.0	.0	141.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.8	40.0	102.0	52.0	5.0	.0	.0	199.8
NNE	.3	17.0	78.0	43.0	1.0	.0	.0	139.3
NE	.5	24.0	9.0	.0	.0	.0	.0	33.5
ENE	.5	26.0	2.0	.0	.0	.0	.0	28.5
E	.4	20.0	2.0	.0	.0	.0	.0	22.4
ESE	.6	30.0	3.0	.0	.0	.0	.0	33.6
SE	.6	32.0	1.0	.0	.0	.0	.0	33.6
SSE	.8	41.0	54.0	4.0	.0	.0	.0	99.8
S	.6	30.0	50.0	4.0	.0	.0	.0	84.6
SSW	.3	14.0	12.0	3.0	.0	.0	.0	29.3
SW	.3	14.0	6.0	2.0	.0	.0	.0	22.3
WSW	.1	3.0	6.0	.0	.0	.0	.0	9.1
W	.1	3.0	11.0	2.0	.0	.0	.0	16.1
WNW	.1	3.0	5.0	3.0	.0	.0	.0	11.1
NW	.2	8.0	10.0	11.0	.0	.0	.0	29.2
NNW	.3	14.0	20.0	8.0	.0	.0	.0	42.3
TOTAL	6.0	319.0	371.0	132.0	6.0	.0	.0	834.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	1.6	18.0	15.0	1.0	.0	.0	.0	35.6
NNE	3.9	44.0	72.0	1.0	.0	.0	.0	120.9
NE	1.4	16.0	10.0	.0	.0	.0	.0	27.4
ENE	1.2	14.0	1.0	.0	.0	.0	.0	16.2
E	1.5	17.0	.0	.0	.0	.0	.0	18.5
ESE	1.9	21.0	.0	.0	.0	.0	.0	22.9
SE	1.9	21.0	.0	.0	.0	.0	.0	22.9
SSE	3.5	39.0	15.0	.0	.0	.0	.0	57.5
S	3.5	39.0	21.0	3.0	.0	.0	.0	66.5
SSW	2.0	22.0	6.0	.0	.0	.0	.0	30.0
SW	.8	9.0	1.0	.0	.0	.0	.0	10.8
WSW	.8	9.0	3.0	.0	.0	.0	.0	12.8
W	.5	6.0	11.0	.0	.0	.0	.0	17.5
WNW	.3	3.0	10.0	5.0	.0	.0	.0	18.3
NW	.4	5.0	8.0	.0	.0	.0	.0	13.4
NNW	.8	9.0	7.0	1.0	.0	.0	.0	17.8
TOTAL	26.0	292.0	180.0	11.0	.0	.0	.0	509.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	3.9	17.0	.0	.0	.0	.0	.0	20.9
NNE	9.6	42.0	28.0	.0	.0	.0	.0	79.6
NE	3.2	14.0	6.0	.0	.0	.0	.0	23.2
ENE	1.6	7.0	1.0	.0	.0	.0	.0	9.6
E	1.1	5.0	.0	.0	.0	.0	.0	6.1
ESE	.9	4.0	.0	.0	.0	.0	.0	4.9
SE	.2	1.0	.0	.0	.0	.0	.0	1.2
SSE	3.0	13.0	.0	.0	.0	.0	.0	16.0
S	.7	3.0	.0	.0	.0	.0	.0	3.7
SSW	2.1	9.0	.0	.0	.0	.0	.0	11.1
SW	.9	4.0	.0	.0	.0	.0	.0	4.9
WSW	.5	2.0	.0	.0	.0	.0	.0	2.5
W	.2	1.0	.0	.0	.0	.0	.0	1.2
WNW	.9	4.0	.0	.0	.0	.0	.0	4.9
NW	.2	1.0	.0	.0	.0	.0	.0	1.2
NNW	.9	4.0	.0	.0	.0	.0	.0	4.9
TOTAL	30.0	131.0	35.0	.0	.0	.0	.0	196.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.5	6.0	.0	.0	.0	.0	.0	6.5
NNE	.9	12.0	1.0	.0	.0	.0	.0	13.9
NE	.1	1.0	1.0	.0	.0	.0	.0	2.1
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.2	2.0	.0	.0	.0	.0	.0	2.2
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.1	1.0	.0	.0	.0	.0	.0	1.1
SSW	.1	1.0	.0	.0	.0	.0	.0	1.1
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.1	1.0	.0	.0	.0	.0	.0	1.1
NW	.1	1.0	.0	.0	.0	.0	.0	1.1
NNW	.1	1.0	.0	.0	.0	.0	.0	1.1
TOTAL	2.0	26.0	2.0	.0	.0	.0	.0	30.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	6.8	86.0	196.0	102.0	7.0	.0	.0	397.8
NNE	14.9	118.0	188.0	47.0	2.0	.0	.0	369.9
NE	5.2	57.0	27.0	1.0	.0	.0	.0	90.2
ENE	3.4	49.0	5.0	2.0	.0	.0	.0	59.4
E	3.1	45.0	3.0	.0	.0	.0	.0	51.1
ESE	3.5	61.0	4.0	.0	.0	.0	.0	68.5
SE	2.9	62.0	5.0	.0	.0	.0	.0	69.9
SSE	7.3	101.0	126.0	12.0	.0	.0	.0	246.3
S	5.0	82.0	136.0	49.0	.0	.0	.0	272.0
SSW	4.5	52.0	40.0	12.0	.0	.0	.0	108.5
SW	2.0	30.0	19.0	6.0	.0	.0	.0	57.0
WSW	1.3	18.0	30.0	1.0	.0	.0	.0	50.3
W	.9	12.0	53.0	9.0	.0	.0	.0	74.9
WNW	1.3	13.0	33.0	17.0	.0	.0	.0	64.3
NW	1.0	17.0	33.0	32.0	.0	.0	.0	83.0
NNW	2.1	31.0	66.0	21.0	.0	.0	.0	120.1
TOTAL	65.0	834.0	964.0	311.0	9.0	.0	.0	2183.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	2.0	24.0	24.0	8.0	3.0	61.0
NNE	.0	.0	.0	1.0	.0	.0	.0	1.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	2.0	.0	.0	2.0
E	.0	.0	.0	.0	1.0	.0	.0	1.0
ESE	.0	.0	.0	2.0	.0	.0	.0	2.0
SE	.0	.0	2.0	3.0	.0	.0	.0	5.0
SSE	.0	.0	9.0	38.0	6.0	.0	.0	53.0
S	.0	.0	11.0	24.0	15.0	.0	.0	50.0
SSW	.0	1.0	4.0	5.0	7.0	1.0	.0	18.0
SW	.0	1.0	5.0	.0	1.0	1.0	1.0	9.0
WSW	.0	.0	8.0	2.0	2.0	.0	.0	12.0
W	.0	1.0	5.0	8.0	8.0	2.0	.0	24.0
WNW	.0	1.0	1.0	7.0	28.0	4.0	1.0	42.0
NW	.0	.0	3.0	7.0	14.0	7.0	5.0	36.0
NNW	.0	.0	5.0	18.0	8.0	5.0	1.0	37.0
TOTAL	.0	4.0	55.0	139.0	116.0	28.0	11.0	353.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	11.0	9.0	7.0	3.0	.0	30.0
NNE	.0	.0	1.0	1.0	.0	.0	.0	2.0
NE	.0	1.0	1.0	1.0	.0	.0	.0	3.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	4.0	.0	.0	.0	.0	4.0
SE	.0	.0	3.0	1.0	.0	.0	.0	4.0
SSE	.0	.0	7.0	7.0	2.0	.0	.0	16.0
S	.0	.0	12.0	6.0	1.0	.0	.0	19.0
SSW	.0	.0	8.0	.0	2.0	.0	.0	10.0
SW	.0	.0	.0	.0	1.0	.0	.0	1.0
WSW	.0	.0	3.0	1.0	.0	.0	.0	4.0
W	.0	.0	1.0	.0	1.0	.0	.0	2.0
WNW	.0	1.0	1.0	.0	3.0	.0	.0	5.0
NW	.0	.0	.0	1.0	1.0	1.0	1.0	4.0
NNW	.0	.0	7.0	3.0	5.0	1.0	.0	16.0
TOTAL	.0	2.0	59.0	30.0	23.0	5.0	1.0	120.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	6.0	11.0	2.0	1.0	1.0	21.0
NNE	.0	.0	2.0	9.0	2.0	.0	.0	13.0
NE	.0	1.0	2.0	.0	.0	.0	.0	3.0
ENE	.0	.0	3.0	.0	1.0	.0	.0	4.0
E	.0	1.0	1.0	.0	.0	.0	.0	2.0
ESE	.0	.0	6.0	.0	.0	.0	.0	6.0
SE	.0	1.0	3.0	.0	.0	.0	.0	4.0
SSE	.0	1.0	7.0	10.0	4.0	.0	.0	22.0
S	.0	2.0	11.0	2.0	1.0	.0	.0	16.0
SSW	.0	.0	5.0	3.0	2.0	.0	.0	10.0
SW	.0	.0	.0	.0	3.0	.0	.0	3.0
WSW	.0	2.0	1.0	.0	1.0	3.0	.0	7.0
W	.0	.0	.0	1.0	2.0	.0	1.0	4.0
WNW	.0	.0	2.0	1.0	2.0	.0	.0	5.0
NW	.0	.0	5.0	2.0	2.0	.0	1.0	10.0
NNW	.0	.0	5.0	4.0	1.0	1.0	.0	11.0
TOTAL	.0	8.0	59.0	43.0	23.0	5.0	3.0	141.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	4.0	30.0	63.0	69.0	22.0	7.0	195.0
NNE	.0	4.0	35.0	41.0	20.0	1.0	.0	101.0
NE	.0	5.0	16.0	6.0	3.0	.0	.0	30.0
ENE	.0	9.0	17.0	1.0	.0	.0	.0	27.0
E	.0	4.0	17.0	7.0	.0	.0	.0	28.0
ESE	.0	2.0	30.0	9.0	.0	.0	.0	41.0
SE	.0	11.0	22.0	8.0	.0	.0	.0	41.0
SSE	.0	11.0	35.0	69.0	10.0	.0	.0	125.0
S	.0	13.0	20.0	18.0	1.0	.0	.0	52.0
SSW	.0	3.0	10.0	10.0	6.0	1.0	.0	30.0
SW	.0	1.0	5.0	5.0	1.0	1.0	.0	13.0
WSW	.0	2.0	5.0	4.0	3.0	.0	1.0	15.0
W	.0	1.0	.0	4.0	5.0	.0	.0	10.0
WNW	.0	2.0	2.0	7.0	9.0	3.0	.0	23.0
NW	.0	3.0	3.0	18.0	19.0	11.0	.0	54.0
NNW	.0	2.0	12.0	15.0	14.0	4.0	2.0	49.0
TOTAL	.0	77.0	259.0	285.0	160.0	43.0	10.0	834.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	4.0	11.0	18.0	5.0	.0	.0	38.0
NNE	.0	5.0	69.0	31.0	.0	.0	.0	105.0
NE	.0	6.0	8.0	.0	.0	.0	.0	14.0
ENE	.0	5.0	8.0	.0	.0	.0	.0	13.0
E	.0	6.0	3.0	.0	.0	.0	.0	9.0
ESE	.0	2.0	13.0	10.0	.0	.0	.0	25.0
SE	.0	3.0	16.0	10.0	.0	.0	.0	29.0
SSE	.0	8.0	26.0	22.0	.0	.0	.0	56.0
S	.0	5.0	11.0	20.0	6.0	.0	.0	42.0
SSW	.0	1.0	15.0	19.0	1.0	.0	.0	36.0
SW	.0	6.0	9.0	8.0	.0	.0	.0	23.0
WSW	.0	6.0	9.0	3.0	.0	.0	.0	18.0
W	.0	1.0	5.0	6.0	5.0	.0	.0	17.0
WNW	.0	1.0	8.0	7.0	17.0	3.0	.0	36.0
NW	.0	2.0	4.0	16.0	8.0	.0	.0	30.0
NNW	.0	1.0	2.0	8.0	6.0	.0	1.0	18.0
TOTAL	.0	62.0	217.0	178.0	48.0	3.0	1.0	509.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	6.0	14.0	7.0	.0	.0	.0	27.0
NNE	.0	10.0	45.0	12.0	.0	.0	.0	67.0
NE	.0	5.0	4.0	.0	.0	.0	.0	9.0
ENE	.0	3.0	1.0	.0	.0	.0	.0	4.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	2.0	.0	.0	.0	.0	.0	2.0
SE	.0	4.0	1.0	.0	.0	.0	.0	5.0
SSE	.0	7.0	4.0	.0	.0	.0	.0	11.0
S	.0	6.0	11.0	4.0	.0	.0	.0	21.0
SSW	.0	4.0	6.0	2.0	.0	.0	.0	12.0
SW	.0	1.0	7.0	1.0	.0	.0	.0	9.0
WSW	.0	2.0	5.0	1.0	.0	.0	.0	8.0
W	.0	4.0	.0	1.0	.0	.0	.0	5.0
WNW	.0	1.0	1.0	.0	.0	.0	.0	2.0
NW	.0	4.0	1.0	2.0	.0	.0	.0	7.0
NNW	.0	.0	5.0	2.0	.0	.0	.0	7.0
TOTAL	.0	59.0	105.0	32.0	.0	.0	.0	196.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	4.0	4.0	.0	.0	.0	.0	8.0
NNE	.0	.0	6.0	1.0	.0	.0	.0	7.0
NE	.0	.0	1.0	.0	.0	.0	.0	1.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	1.0	.0	.0	.0	.0	.0	1.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	1.0	1.0	.0	.0	.0	.0	2.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	1.0	1.0	.0	.0	.0	.0	2.0
WSW	.0	1.0	.0	.0	.0	.0	.0	1.0
W	.0	.0	1.0	.0	.0	.0	.0	1.0
WNW	.0	1.0	1.0	2.0	.0	.0	.0	4.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.0	3.0	.0	.0	.0	.0	.0	3.0
TOTAL	.0	12.0	15.0	3.0	.0	.0	.0	30.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	18.0	78.0	132.0	107.0	34.0	11.0	380.0
NNE	.0	19.0	158.0	96.0	22.0	1.0	.0	296.0
NE	.0	18.0	32.0	7.0	3.0	.0	.0	60.0
ENE	.0	17.0	29.0	1.0	3.0	.0	.0	50.0
E	.0	12.0	21.0	7.0	1.0	.0	.0	41.0
ESE	.0	6.0	53.0	21.0	.0	.0	.0	80.0
SE	.0	19.0	47.0	22.0	.0	.0	.0	88.0
SSE	.0	28.0	89.0	146.0	22.0	.0	.0	285.0
S	.0	26.0	76.0	74.0	24.0	.0	.0	200.0
SSW	.0	9.0	48.0	39.0	18.0	2.0	.0	116.0
SW	.0	10.0	27.0	14.0	6.0	2.0	1.0	60.0
WSW	.0	13.0	31.0	11.0	6.0	3.0	1.0	65.0
W	.0	7.0	12.0	20.0	21.0	2.0	1.0	63.0
WNW	.0	7.0	16.0	24.0	59.0	10.0	1.0	117.0
NW	.0	9.0	16.0	46.0	44.0	19.0	7.0	141.0
NNW	.0	6.0	36.0	50.0	34.0	11.0	4.0	141.0
TOTAL	.0	224.0	769.0	710.0	370.0	84.0	26.0	2183.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	1.0	.0	.0	1.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	1.0	1.0	.0	.0	2.0
SSE	.0	.0	.0	1.0	1.0	.0	.0	2.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	1.0	.0	.0	.0	.0	1.0
W	.0	.0	.0	1.0	2.0	.0	.0	3.0
WNW	.0	.0	.0	3.0	2.0	1.0	.0	6.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.0	.0	.0	2.0	.0	.0	.0	2.0
TOTAL	.0	.0	1.0	8.0	7.0	1.0	.0	17.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	1.0	5.0	3.0	.0	9.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	1.0	.0	.0	1.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	1.0	.0	.0	.0	1.0
SE	.0	.0	.0	1.0	1.0	.0	.0	2.0
SSE	.0	.0	.0	6.0	1.0	.0	.0	7.0
S	.0	.0	.0	1.0	5.0	1.0	.0	7.0
SSW	.0	.0	.0	.0	1.0	.0	.0	1.0
SW	.0	.0	1.0	1.0	.0	.0	.0	2.0
WSW	.0	.0	1.0	1.0	.0	.0	.0	2.0
W	.0	.0	1.0	3.0	11.0	.0	.0	15.0
WNW	.0	.0	.0	1.0	9.0	5.0	3.0	18.0
NW	.0	.0	.0	3.0	1.0	2.0	3.0	9.0
NNW	.0	.0	.0	7.0	9.0	5.0	1.0	22.0
TOTAL	.0	.0	3.0	26.0	44.0	16.0	7.0	96.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	2.0	12.0	9.0	4.0	1.0	28.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	2.0	.0	.0	2.0
E	.0	.0	.0	1.0	.0	.0	.0	1.0
ESE	.0	.0	.0	2.0	.0	.0	.0	2.0
SE	.0	.0	.0	8.0	6.0	.0	.0	14.0
SSE	.0	.0	4.0	21.0	3.0	1.0	.0	29.0
S	.0	.0	5.0	8.0	10.0	.0	.0	23.0
SSW	.0	.0	2.0	1.0	4.0	1.0	.0	8.0
SW	.0	.0	4.0	.0	.0	.0	1.0	5.0
WSW	.0	.0	3.0	.0	1.0	2.0	.0	6.0
W	.0	.0	3.0	2.0	7.0	4.0	3.0	19.0
WNW	.0	.0	.0	2.0	6.0	1.0	1.0	10.0
NW	.0	.0	4.0	3.0	4.0	1.0	2.0	14.0
NNW	.0	.0	3.0	17.0	11.0	4.0	5.0	40.0
TOTAL	.0	.0	30.0	77.0	63.0	18.0	13.0	201.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	5.0	41.0	80.0	78.0	39.0	6.0	249.0
NNE	.0	2.0	20.0	15.0	13.0	7.0	.0	57.0
NE	.0	5.0	18.0	8.0	2.0	.0	.0	33.0
ENE	.0	7.0	21.0	6.0	.0	.0	.0	34.0
E	.0	5.0	12.0	8.0	2.0	.0	.0	27.0
ESE	.0	4.0	31.0	25.0	1.0	.0	.0	61.0
SE	.0	6.0	19.0	31.0	4.0	.0	.0	60.0
SSE	.0	7.0	57.0	85.0	38.0	1.0	.0	188.0
S	.0	5.0	29.0	17.0	11.0	1.0	.0	63.0
SSW	.0	1.0	7.0	5.0	13.0	5.0	.0	31.0
SW	.0	2.0	10.0	6.0	5.0	4.0	4.0	31.0
WSW	.0	2.0	4.0	15.0	3.0	2.0	.0	26.0
W	.0	2.0	2.0	6.0	22.0	5.0	2.0	39.0
WNW	.0	3.0	7.0	12.0	25.0	24.0	1.0	72.0
NW	.0	1.0	10.0	19.0	32.0	16.0	10.0	88.0
NNW	.0	2.0	21.0	23.0	34.0	19.0	10.0	109.0
TOTAL	.0	59.0	309.0	361.0	283.0	123.0	33.0	1168.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	3.0	15.0	26.0	10.0	.0	.0	54.0
NNE	.0	3.0	12.0	10.0	2.0	.0	.0	27.0
NE	.0	5.0	9.0	2.0	.0	.0	.0	16.0
ENE	.0	5.0	11.0	1.0	.0	.0	.0	17.0
E	.0	7.0	5.0	2.0	.0	.0	.0	14.0
ESE	.0	6.0	22.0	5.0	1.0	.0	.0	34.0
SE	.0	8.0	23.0	22.0	4.0	.0	.0	57.0
SSE	.0	16.0	25.0	23.0	3.0	.0	.0	67.0
S	.0	6.0	27.0	30.0	9.0	.0	.0	72.0
SSW	.0	5.0	14.0	17.0	2.0	1.0	.0	39.0
SW	.0	3.0	6.0	16.0	.0	.0	.0	25.0
WSW	.0	4.0	4.0	7.0	2.0	.0	.0	17.0
W	.0	.0	5.0	3.0	2.0	3.0	1.0	14.0
WNW	.0	5.0	6.0	10.0	5.0	.0	.0	26.0
NW	.0	3.0	10.0	12.0	3.0	.0	.0	28.0
NNW	.0	2.0	4.0	7.0	3.0	.0	.0	16.0
TOTAL	.0	81.0	198.0	193.0	46.0	4.0	1.0	523.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	5.0	11.0	15.0	.0	.0	.0	31.0
NNE	.0	2.0	10.0	.0	1.0	.0	.0	13.0
NE	.0	3.0	2.0	.0	.0	.0	.0	5.0
ENE	.0	1.0	1.0	.0	.0	.0	.0	2.0
E	.0	.0	1.0	.0	.0	.0	.0	1.0
ESE	.0	4.0	.0	.0	.0	.0	.0	4.0
SE	.0	2.0	1.0	.0	.0	.0	.0	3.0
SSE	.0	4.0	6.0	2.0	.0	.0	.0	12.0
S	.0	11.0	6.0	2.0	.0	.0	.0	19.0
SSW	.0	7.0	4.0	1.0	.0	.0	.0	12.0
SW	.0	6.0	3.0	3.0	.0	.0	.0	12.0
WSW	.0	2.0	3.0	.0	.0	.0	.0	5.0
W	.0	1.0	1.0	.0	.0	.0	.0	2.0
WNW	.0	1.0	2.0	5.0	.0	.0	.0	8.0
NW	.0	3.0	1.0	3.0	2.0	.0	.0	9.0
NNW	.0	1.0	17.0	.0	.0	.0	.0	18.0
TOTAL	.0	53.0	69.0	31.0	3.0	.0	.0	156.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	4.0	.0	.0	.0	.0	4.0
NNE	.0	.0	1.0	.0	.0	.0	.0	1.0
NE	.0	1.0	.0	.0	.0	.0	.0	1.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	1.0	.0	.0	.0	.0	.0	1.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	1.0	.0	.0	.0	.0	.0	1.0
SSW	.0	1.0	2.0	.0	.0	.0	.0	3.0
SW	.0	1.0	1.0	.0	.0	.0	.0	2.0
WSW	.0	1.0	.0	.0	.0	.0	.0	1.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.0	1.0	.0	.0	.0	.0	.0	1.0
NW	.0	5.0	.0	.0	.0	.0	.0	5.0
NNW	.0	1.0	1.0	.0	.0	.0	.0	2.0
TOTAL	.0	13.0	9.0	.0	.0	.0	.0	22.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00
 MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - APR/MAY/JUN 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 4/ 1/ 0] TO [1999/ 6/30/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	13.0	73.0	134.0	103.0	46.0	7.0	376.0
NNE	.0	7.0	43.0	25.0	16.0	7.0	.0	98.0
NE	.0	14.0	29.0	10.0	2.0	.0	.0	55.0
ENE	.0	13.0	33.0	7.0	3.0	.0	.0	56.0
E	.0	12.0	18.0	11.0	2.0	.0	.0	43.0
ESE	.0	15.0	53.0	33.0	2.0	.0	.0	103.0
SE	.0	16.0	43.0	63.0	16.0	.0	.0	138.0
SSE	.0	27.0	92.0	138.0	46.0	2.0	.0	305.0
S	.0	23.0	67.0	58.0	35.0	2.0	.0	185.0
SSW	.0	14.0	29.0	24.0	20.0	7.0	.0	94.0
SW	.0	12.0	25.0	26.0	5.0	4.0	5.0	77.0
WSW	.0	9.0	16.0	23.0	6.0	4.0	.0	58.0
W	.0	3.0	12.0	15.0	44.0	12.0	6.0	92.0
WNW	.0	10.0	15.0	33.0	47.0	31.0	5.0	141.0
NW	.0	12.0	25.0	40.0	42.0	19.0	15.0	153.0
NNW	.0	6.0	46.0	56.0	57.0	28.0	16.0	209.0
TOTAL	.0	206.0	619.0	696.0	446.0	162.0	54.0	2183.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2183

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	44.0	5.0	1.0	1.0	.0	51.0
NNE	.0	1.0	5.0	1.0	.0	1.0	.0	8.0
NE	.0	1.0	.0	.0	.0	.0	.0	1.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	3.0	.0	.0	.0	.0	.0	3.0
SE	.0	1.0	1.0	.0	.0	.0	.0	2.0
SSE	.0	3.0	40.0	6.0	.0	.0	.0	49.0
S	.0	3.0	46.0	5.0	.0	.0	.0	54.0
SSW	.0	2.0	11.0	1.0	.0	.0	.0	14.0
SW	.0	.0	21.0	.0	.0	.0	.0	21.0
WSW	.0	.0	16.0	.0	.0	.0	.0	16.0
W	.0	.0	19.0	.0	.0	.0	.0	19.0
WNW	.0	1.0	26.0	1.0	.0	.0	.0	28.0
NW	.0	.0	27.0	2.0	.0	.0	.0	29.0
NNW	.0	.0	25.0	4.0	.0	.0	.0	29.0
TOTAL	.0	15.0	281.0	25.0	1.0	2.0	.0	324.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	23.0	4.0	.0	2.0	.0	29.0
NNE	.0	.0	8.0	5.0	4.0	.0	.0	17.0
NE	.0	.0	1.0	.0	.0	.0	.0	1.0
ENE	.0	.0	1.0	.0	.0	.0	.0	1.0
E	.0	.0	3.0	.0	.0	.0	.0	3.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	6.0	13.0	.0	.0	.0	.0	19.0
S	.0	6.0	35.0	3.0	.0	.0	.0	44.0
SSW	.0	2.0	4.0	.0	.0	.0	.0	6.0
SW	.0	1.0	4.0	.0	.0	.0	.0	5.0
WSW	.0	.0	1.0	.0	.0	.0	.0	1.0
W	.0	.0	4.0	.0	.0	.0	.0	4.0
WNW	.0	.0	1.0	.0	.0	.0	.0	1.0
NW	.0	2.0	1.0	1.0	.0	.0	.0	4.0
NNW	.0	1.0	4.0	.0	.0	.0	.0	5.0
TOTAL	.0	18.0	103.0	13.0	4.0	2.0	.0	140.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	2.0	21.0	4.0	.0	.0	.0	27.0
NNE	.0	1.0	7.0	4.0	.0	.0	.0	12.0
NE	.0	1.0	8.0	.0	.0	.0	.0	9.0
ENE	.0	.0	4.0	.0	.0	.0	.0	4.0
E	.0	.0	1.0	.0	.0	.0	.0	1.0
ESE	.0	2.0	1.0	.0	.0	.0	.0	3.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	6.0	19.0	1.0	.0	.0	.0	26.0
S	.0	5.0	20.0	1.0	.0	.0	.0	26.0
SSW	.0	1.0	4.0	.0	.0	.0	.0	5.0
SW	.0	1.0	.0	.0	.0	.0	.0	1.0
WSW	.0	.0	4.0	.0	.0	.0	.0	4.0
W	.0	.0	1.0	.0	.0	.0	.0	1.0
WNW	.0	1.0	2.0	.0	.0	.0	.0	3.0
NW	.0	1.0	1.0	1.0	.0	.0	.0	3.0
NNW	.0	.0	2.0	.0	.0	.0	.0	2.0
TOTAL	.0	21.0	95.0	11.0	.0	.0	.0	127.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.6	23.0	110.0	31.0	3.0	1.0	.0	168.6
NNE	1.1	45.0	105.0	23.0	2.0	.0	.0	176.1
NE	1.0	39.0	15.0	.0	.0	.0	.0	55.0
ENE	.3	13.0	10.0	.0	.0	.0	.0	23.3
E	.6	26.0	1.0	.0	.0	.0	.0	27.6
ESE	.2	8.0	1.0	.0	.0	.0	.0	9.2
SE	.7	27.0	.0	.0	.0	.0	.0	27.7
SSE	1.0	41.0	58.0	3.0	.0	.0	.0	103.0
S	.5	22.0	55.0	22.0	.0	.0	.0	99.5
SSW	.3	14.0	18.0	1.0	.0	.0	.0	33.3
SW	.1	5.0	7.0	1.0	.0	.0	.0	13.1
WSW	.1	5.0	8.0	.0	.0	.0	.0	13.1
W	.0	2.0	4.0	.0	.0	.0	.0	6.0
WNW	.0	2.0	1.0	1.0	.0	.0	.0	4.0
NW	.0	2.0	8.0	2.0	.0	.0	.0	12.0
NNW	.2	7.0	19.0	2.0	.0	.0	.0	28.2
TOTAL	7.0	281.0	420.0	86.0	5.0	1.0	.0	800.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	1.4	15.0	12.0	.0	.0	.0	.0	28.4
NNE	6.6	73.0	59.0	2.0	.0	.0	.0	140.6
NE	4.3	47.0	11.0	.0	.0	.0	.0	62.3
ENE	2.3	25.0	2.0	.0	.0	.0	.0	29.3
E	2.2	24.0	.0	.0	.0	.0	.0	26.2
ESE	2.9	32.0	.0	.0	.0	.0	.0	34.9
SE	2.9	32.0	.0	.0	.0	.0	.0	34.9
SSE	4.3	48.0	14.0	1.0	.0	.0	.0	67.3
S	3.1	34.0	40.0	3.0	.0	.0	.0	80.1
SSW	3.3	37.0	5.0	.0	.0	.0	.0	45.3
SW	.7	8.0	1.0	.0	.0	.0	.0	9.7
WSW	.7	8.0	3.0	1.0	.0	.0	.0	12.7
W	.3	3.0	7.0	.0	.0	.0	.0	10.3
WNW	.3	3.0	4.0	1.0	.0	.0	.0	8.3
NW	.3	3.0	6.0	1.0	.0	.0	.0	10.3
NNW	.5	6.0	3.0	1.0	.0	.0	.0	10.5
TOTAL	36.0	398.0	167.0	10.0	.0	.0	.0	611.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) . 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	1.1	15.0	.0	.0	.0	.0	.0	16.1
NNE	3.5	48.0	25.0	.0	.0	.0	.0	76.5
NE	1.7	24.0	8.0	.0	.0	.0	.0	33.7
ENE	.4	5.0	.0	.0	.0	.0	.0	5.4
E	.5	7.0	.0	.0	.0	.0	.0	7.5
ESE	.2	3.0	.0	.0	.0	.0	.0	3.2
SE	.3	4.0	.0	.0	.0	.0	.0	4.3
SSE	.5	7.0	.0	.0	.0	.0	.0	7.5
S	.8	11.0	.0	.0	.0	.0	.0	11.8
SSW	.5	7.0	.0	.0	.0	.0	.0	7.5
SW	.5	7.0	.0	.0	.0	.0	.0	7.5
WSW	.1	2.0	.0	.0	.0	.0	.0	2.1
W	.2	3.0	.0	.0	.0	.0	.0	3.2
WNW	.1	1.0	.0	.0	.0	.0	.0	1.1
NW	.3	4.0	.0	.0	.0	.0	.0	4.3
NNW	.2	3.0	.0	.0	.0	.0	.0	3.2
TOTAL	11.0	151.0	33.0	.0	.0	.0	.0	195.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.4	3.0	.0	.0	.0	.0	.0	3.4
NNE	.1	1.0	.0	.0	.0	.0	.0	1.1
NE	.1	1.0	1.0	.0	.0	.0	.0	2.1
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.1	1.0	.0	.0	.0	.0	.0	1.1
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.3	2.0	.0	.0	.0	.0	.0	2.3
TOTAL	1.0	8.0	1.0	.0	.0	.0	.0	10.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	3.4	58.0	210.0	44.0	4.0	4.0	.0	323.4
NNE	11.3	169.0	209.0	35.0	6.0	1.0	.0	431.3
NE	7.1	113.0	44.0	.0	.0	.0	.0	164.1
ENE	2.9	43.0	17.0	.0	.0	.0	.0	62.9
E	3.5	58.0	5.0	.0	.0	.0	.0	66.5
ESE	3.3	48.0	2.0	.0	.0	.0	.0	53.3
SE	3.9	64.0	1.0	.0	.0	.0	.0	68.9
SSE	5.9	111.0	144.0	11.0	.0	.0	.0	271.9
S	4.4	81.0	196.0	34.0	.0	.0	.0	315.4
SSW	4.2	63.0	42.0	2.0	.0	.0	.0	111.2
SW	1.4	22.0	33.0	1.0	.0	.0	.0	57.4
WSW	1.0	15.0	32.0	1.0	.0	.0	.0	49.0
W	.5	8.0	35.0	.0	.0	.0	.0	43.5
WNW	.4	8.0	34.0	3.0	.0	.0	.0	45.4
NW	.6	12.0	43.0	7.0	.0	.0	.0	62.6
NNW	1.2	19.0	53.0	7.0	.0	.0	.0	80.2
TOTAL	55.0	892.0	1100.0	145.0	10.0	5.0	.0	2207.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	23.0	3.0	1.0	3.0	30.0
NNE	.0	.0	.0	3.0	.0	.0	.0	3.0
NE	.0	.0	2.0	.0	.0	.0	.0	2.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	2.0	1.0	.0	.0	.0	.0	3.0
SE	.0	2.0	.0	3.0	.0	.0	.0	5.0
SSE	.0	1.0	22.0	36.0	7.0	.0	.0	66.0
S	.0	1.0	20.0	7.0	1.0	.0	.0	29.0
SSW	.0	1.0	9.0	2.0	.0	.0	.0	12.0
SW	.0	1.0	6.0	5.0	3.0	.0	.0	15.0
WSW	.0	.0	4.0	4.0	5.0	.0	.0	13.0
W	.0	.0	3.0	10.0	2.0	1.0	.0	16.0
WNW	.0	.0	1.0	21.0	17.0	4.0	.0	43.0
NW	.0	.0	.0	21.0	24.0	9.0	3.0	57.0
NNW	.0	.0	5.0	21.0	3.0	.0	1.0	30.0
TOTAL	.0	8.0	73.0	156.0	65.0	15.0	7.0	324.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	5.0	9.0	6.0	5.0	4.0	29.0
NNE	.0	.0	.0	5.0	.0	.0	.0	5.0
NE	.0	.0	.0	3.0	.0	.0	.0	3.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	1.0	1.0	.0	.0	.0	2.0
ESE	.0	.0	.0	2.0	.0	.0	.0	2.0
SE	.0	.0	1.0	.0	.0	.0	.0	1.0
SSE	.0	.0	25.0	9.0	.0	.0	.0	34.0
S	.0	1.0	19.0	5.0	.0	.0	.0	25.0
SSW	.0	1.0	5.0	.0	1.0	.0	.0	7.0
SW	.0	1.0	2.0	.0	.0	.0	.0	3.0
WSW	.0	.0	2.0	.0	2.0	.0	.0	4.0
W	.0	.0	.0	.0	1.0	.0	.0	1.0
WNW	.0	.0	.0	2.0	2.0	.0	.0	4.0
NW	.0	.0	4.0	3.0	2.0	1.0	.0	10.0
NNW	.0	.0	5.0	3.0	2.0	.0	.0	10.0
TOTAL	.0	3.0	69.0	42.0	16.0	6.0	4.0	140.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	1.0	5.0	10.0	5.0	3.0	.0	24.0
NNE	.0	.0	4.0	3.0	.0	.0	.0	7.0
NE	.0	.0	1.0	3.0	.0	.0	.0	4.0
ENE	.0	1.0	2.0	3.0	.0	.0	.0	6.0
E	.0	.0	.0	4.0	.0	.0	.0	4.0
ESE	.0	1.0	1.0	.0	.0	.0	.0	2.0
SE	.0	.0	3.0	.0	.0	.0	.0	3.0
SSE	.0	2.0	10.0	17.0	3.0	.0	.0	32.0
S	.0	1.0	12.0	5.0	.0	.0	.0	18.0
SSW	.0	1.0	2.0	1.0	1.0	.0	.0	5.0
SW	.0	.0	1.0	.0	.0	.0	.0	1.0
WSW	.0	.0	1.0	.0	1.0	.0	.0	2.0
W	.0	.0	.0	2.0	.0	.0	.0	2.0
WNW	.0	.0	2.0	1.0	.0	.0	.0	3.0
NW	.0	.0	.0	2.0	1.0	.0	1.0	4.0
NNW	.0	1.0	5.0	3.0	1.0	.0	.0	10.0
TOTAL	.0	8.0	49.0	54.0	12.0	3.0	1.0	127.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	6.0	19.0	53.0	33.0	16.0	6.0	133.0
NNE	.0	8.0	44.0	38.0	5.0	1.0	.0	96.0
NE	.0	12.0	37.0	11.0	.0	.0	.0	60.0
ENE	.0	12.0	13.0	6.0	.0	.0	.0	31.0
E	.0	5.0	9.0	9.0	.0	.0	.0	23.0
ESE	.0	4.0	9.0	8.0	1.0	.0	.0	22.0
SE	.0	7.0	11.0	14.0	.0	.0	.0	32.0
SSE	.0	16.0	29.0	66.0	14.0	1.0	.0	126.0
S	.0	4.0	19.0	16.0	17.0	.0	.0	56.0
SSW	.0	5.0	15.0	5.0	10.0	.0	.0	35.0
SW	.0	4.0	5.0	4.0	4.0	.0	.0	17.0
WSW	.0	3.0	2.0	5.0	6.0	1.0	.0	17.0
W	.0	1.0	1.0	8.0	1.0	.0	.0	11.0
WNW	.0	1.0	3.0	2.0	3.0	.0	2.0	11.0
NW	.0	2.0	4.0	10.0	33.0	10.0	1.0	60.0
NNW	.0	4.0	11.0	26.0	21.0	6.0	2.0	70.0
TOTAL	.0	94.0	231.0	281.0	148.0	35.0	11.0	800.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	14.0	12.0	8.0	1.0	.0	.0	35.0
NNE	.0	20.0	103.0	36.0	2.0	.0	.0	161.0
NE	.0	11.0	17.0	1.0	.0	.0	.0	29.0
ENE	.0	3.0	9.0	1.0	.0	.0	.0	13.0
E	.0	2.0	4.0	3.0	.0	.0	.0	9.0
ESE	.0	5.0	7.0	4.0	.0	.0	.0	16.0
SE	.0	4.0	14.0	16.0	.0	.0	.0	34.0
SSE	.0	6.0	29.0	35.0	3.0	.0	.0	73.0
S	.0	6.0	26.0	22.0	5.0	.0	.0	59.0
SSW	.0	11.0	21.0	19.0	1.0	.0	.0	52.0
SW	.0	5.0	18.0	5.0	.0	.0	.0	28.0
WSW	.0	4.0	5.0	4.0	.0	.0	.0	13.0
W	.0	2.0	5.0	3.0	4.0	2.0	.0	16.0
WNW	.0	3.0	4.0	8.0	8.0	1.0	1.0	25.0
NW	.0	.0	4.0	10.0	7.0	2.0	2.0	25.0
NNW	.0	5.0	4.0	11.0	3.0	.0	.0	23.0
TOTAL	.0	101.0	282.0	186.0	34.0	5.0	3.0	611.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	7.0	11.0	.0	.0	.0	.0	18.0
NNE	.0	6.0	58.0	18.0	.0	.0	.0	82.0
NE	.0	7.0	1.0	.0	.0	.0	.0	8.0
ENE	.0	4.0	.0	.0	.0	.0	.0	4.0
E	.0	3.0	.0	.0	.0	.0	.0	3.0
ESE	.0	2.0	1.0	.0	.0	.0	.0	3.0
SE	.0	.0	.0	1.0	.0	.0	.0	1.0
SSE	.0	4.0	2.0	1.0	.0	.0	.0	7.0
S	.0	3.0	5.0	2.0	.0	.0	.0	10.0
SSW	.0	5.0	5.0	5.0	.0	.0	.0	15.0
SW	.0	4.0	6.0	.0	.0	.0	.0	10.0
WSW	.0	1.0	7.0	1.0	.0	.0	.0	9.0
W	.0	.0	.0	4.0	.0	.0	.0	4.0
WNW	.0	2.0	7.0	.0	.0	.0	.0	9.0
NW	.0	5.0	3.0	.0	.0	.0	.0	8.0
NNW	.0	3.0	1.0	.0	.0	.0	.0	4.0
TOTAL	.0	56.0	107.0	32.0	.0	.0	.0	195.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	1.0	.0	.0	.0	.0	1.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	2.0	.0	.0	.0	.0	2.0
W	.0	.0	4.0	.0	.0	.0	.0	4.0
WNW	.0	.0	1.0	.0	.0	.0	.0	1.0
NW	.0	.0	1.0	1.0	.0	.0	.0	2.0
NNW	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	.0	.0	9.0	1.0	.0	.0	.0	10.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	28.0	53.0	103.0	48.0	25.0	13.0	270.0
NNE	.0	34.0	209.0	103.0	7.0	1.0	.0	354.0
NE	.0	30.0	58.0	18.0	.0	.0	.0	106.0
ENE	.0	20.0	24.0	10.0	.0	.0	.0	54.0
E	.0	10.0	14.0	17.0	.0	.0	.0	41.0
ESE	.0	14.0	19.0	14.0	1.0	.0	.0	48.0
SE	.0	13.0	29.0	34.0	.0	.0	.0	76.0
SSE	.0	29.0	117.0	164.0	27.0	1.0	.0	338.0
S	.0	16.0	101.0	57.0	23.0	.0	.0	197.0
SSW	.0	24.0	57.0	32.0	13.0	.0	.0	126.0
SW	.0	15.0	38.0	14.0	7.0	.0	.0	74.0
WSW	.0	8.0	23.0	14.0	14.0	1.0	.0	60.0
W	.0	3.0	13.0	27.0	8.0	3.0	.0	54.0
WNW	.0	6.0	18.0	34.0	30.0	5.0	3.0	96.0
NW	.0	7.0	16.0	47.0	67.0	22.0	7.0	166.0
NNW	.0	13.0	31.0	64.0	30.0	6.0	3.0	147.0
TOTAL	.0	270.0	820.0	752.0	275.0	64.0	26.0	2207.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	4.0	2.0	.0	.0	6.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	1.0	.0	.0	.0	1.0
WSW	.0	.0	.0	1.0	1.0	.0	.0	2.0
W	.0	.0	.0	3.0	3.0	.0	.0	6.0
WNW	.0	.0	.0	3.0	10.0	6.0	1.0	20.0
NW	.0	.0	.0	1.0	4.0	2.0	.0	7.0
NNW	.0	.0	.0	4.0	.0	.0	.0	4.0
TOTAL	.0	.0	.0	17.0	20.0	8.0	1.0	46.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	8.0	2.0	.0	.0	10.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	1.0	8.0	1.0	.0	.0	10.0
SSE	.0	.0	.0	6.0	1.0	.0	.0	7.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	1.0	1.0	2.0	.0	.0	4.0
WSW	.0	.0	.0	1.0	.0	.0	.0	1.0
W	.0	.0	.0	4.0	4.0	.0	.0	8.0
WNW	.0	.0	.0	7.0	17.0	3.0	.0	27.0
NW	.0	.0	.0	4.0	5.0	.0	.0	9.0
NNW	.0	.0	.0	7.0	5.0	.0	.0	12.0
TOTAL	.0	.0	2.0	46.0	37.0	3.0	.0	88.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	1.0	10.0	1.0	1.0	.0	13.0
NNE	.0	.0	.0	1.0	.0	.0	.0	1.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	5.0	5.0	4.0	.0	.0	14.0
SSE	.0	.0	11.0	9.0	7.0	.0	.0	27.0
S	.0	.0	3.0	.0	.0	.0	.0	3.0
SSW	.0	.0	2.0	.0	1.0	.0	.0	3.0
SW	.0	.0	3.0	3.0	2.0	1.0	.0	9.0
WSW	.0	.0	.0	2.0	2.0	1.0	.0	5.0
W	.0	.0	.0	4.0	3.0	1.0	.0	8.0
WNW	.0	.0	.0	7.0	3.0	3.0	3.0	16.0
NW	.0	.0	3.0	8.0	5.0	1.0	1.0	18.0
NNW	.0	.0	1.0	9.0	4.0	.0	.0	14.0
TOTAL	.0	.0	29.0	58.0	32.0	8.0	4.0	131.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	3.0	25.0	82.0	52.0	21.0	22.0	205.0
NNE	.0	9.0	25.0	28.0	.0	.0	.0	62.0
NE	.0	10.0	14.0	17.0	2.0	.0	.0	43.0
ENE	.0	6.0	16.0	12.0	1.0	.0	.0	35.0
E	.0	7.0	16.0	10.0	6.0	.0	.0	39.0
ESE	.0	5.0	5.0	5.0	1.0	.0	.0	16.0
SE	.0	17.0	23.0	44.0	11.0	1.0	.0	96.0
SSE	.0	12.0	81.0	71.0	47.0	6.0	.0	217.0
S	.0	8.0	33.0	30.0	20.0	8.0	.0	99.0
SSW	.0	5.0	17.0	3.0	12.0	2.0	.0	39.0
SW	.0	7.0	3.0	6.0	5.0	1.0	.0	22.0
WSW	.0	.0	3.0	3.0	10.0	3.0	.0	19.0
W	.0	1.0	2.0	10.0	8.0	3.0	.0	24.0
WNW	.0	3.0	5.0	16.0	17.0	12.0	9.0	62.0
NW	.0	2.0	10.0	27.0	30.0	24.0	8.0	101.0
NNW	.0	4.0	15.0	31.0	24.0	14.0	6.0	94.0
TOTAL	.0	99.0	293.0	395.0	246.0	95.0	45.0	1173.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	9.0	20.0	22.0	3.0	.0	.0	54.0
NNE	.0	15.0	19.0	6.0	4.0	.0	.0	44.0
NE	.0	9.0	8.0	1.0	.0	.0	.0	18.0
ENE	.0	7.0	6.0	5.0	.0	.0	.0	18.0
E	.0	10.0	5.0	6.0	2.0	.0	.0	23.0
ESE	.0	8.0	4.0	4.0	6.0	.0	.0	22.0
SE	.0	11.0	8.0	24.0	5.0	.0	.0	48.0
SSE	.0	10.0	35.0	37.0	4.0	.0	.0	86.0
S	.0	14.0	43.0	26.0	4.0	1.0	.0	88.0
SSW	.0	16.0	26.0	19.0	7.0	.0	.0	68.0
SW	.0	9.0	14.0	3.0	2.0	.0	.0	28.0
WSW	.0	7.0	7.0	6.0	6.0	1.0	1.0	28.0
W	.0	8.0	2.0	3.0	.0	2.0	1.0	16.0
WNW	.0	6.0	6.0	9.0	6.0	3.0	.0	30.0
NW	.0	13.0	7.0	3.0	2.0	.0	.0	25.0
NNW	.0	14.0	13.0	7.0	2.0	.0	.0	36.0
TOTAL	.0	166.0	223.0	181.0	53.0	7.0	2.0	632.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

May, 2000
 Re: Indian Point Unit Nos. 1 & 2
 Docket Nos. 50-03 & 50-24

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	6.0	9.0	2.0	.0	.0	.0	17.0
NNE	.0	6.0	14.0	1.0	.0	.0	.0	21.0
NE	.0	4.0	1.0	.0	.0	.0	.0	5.0
ENE	.0	4.0	.0	.0	.0	.0	.0	4.0
E	.0	1.0	.0	.0	.0	.0	.0	1.0
ESE	.0	1.0	.0	.0	.0	.0	.0	1.0
SE	.0	3.0	.0	.0	.0	.0	.0	3.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	3.0	3.0	1.0	.0	.0	.0	7.0
SSW	.0	4.0	3.0	1.0	.0	.0	.0	8.0
SW	.0	5.0	3.0	1.0	.0	.0	.0	9.0
WSW	.0	2.0	1.0	1.0	.0	.0	.0	4.0
W	.0	4.0	5.0	8.0	.0	.0	.0	17.0
WNW	.0	2.0	.0	4.0	2.0	.0	.0	8.0
NW	.0	5.0	2.0	1.0	.0	.0	.0	8.0
NNW	.0	7.0	9.0	5.0	.0	.0	.0	21.0
TOTAL	.0	57.0	50.0	25.0	2.0	.0	.0	134.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.0	1.0	1.0	.0	.0	.0	.0	2.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.0	.0	1.0	.0	.0	.0	.0	1.0
TOTAL	.0	1.0	2.0	.0	.0	.0	.0	3.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - JUL/AUG/SEP 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/ 7/ 1/ 0] TO [1999/ 9/30/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	18.0	55.0	124.0	58.0	22.0	22.0	299.0
NNE	.0	31.0	59.0	36.0	4.0	.0	.0	130.0
NE	.0	23.0	23.0	18.0	2.0	.0	.0	66.0
ENE	.0	17.0	22.0	17.0	1.0	.0	.0	57.0
E	.0	18.0	21.0	16.0	8.0	.0	.0	63.0
ESE	.0	14.0	9.0	9.0	7.0	.0	.0	39.0
SE	.0	31.0	37.0	85.0	23.0	1.0	.0	177.0
SSE	.0	22.0	127.0	123.0	59.0	6.0	.0	337.0
S	.0	25.0	82.0	57.0	24.0	9.0	.0	197.0
SSW	.0	25.0	48.0	23.0	20.0	2.0	.0	118.0
SW	.0	21.0	24.0	15.0	11.0	2.0	.0	73.0
WSW	.0	9.0	11.0	14.0	19.0	5.0	1.0	59.0
W	.0	13.0	9.0	32.0	18.0	6.0	1.0	79.0
WNW	.0	11.0	11.0	46.0	55.0	27.0	13.0	163.0
NW	.0	20.0	22.0	44.0	46.0	27.0	9.0	168.0
NNW	.0	25.0	39.0	63.0	35.0	14.0	6.0	182.0
TOTAL	.0	323.0	599.0	722.0	390.0	121.0	52.0	2207.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 1
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2207

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	2.0	4.0	1.0	.0	.0	7.0
NNE	.0	.0	.0	3.0	1.0	.0	.0	4.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	20.0	.0	.0	.0	.0	20.0
S	.0	4.0	8.0	5.0	.0	.0	.0	17.0
SSW	.0	3.0	3.0	1.0	.0	.0	.0	7.0
SW	.0	2.0	2.0	1.0	.0	.0	.0	5.0
WSW	.0	1.0	.0	1.0	.0	.0	.0	2.0
W	.0	1.0	5.0	3.0	.0	.0	.0	9.0
WNW	.0	1.0	7.0	1.0	.0	.0	.0	9.0
NW	.0	.0	8.0	3.0	.0	.0	.0	11.0
NNW	.0	.0	3.0	6.0	.0	.0	.0	9.0
TOTAL	.0	12.0	58.0	28.0	2.0	.0	.0	100.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 87
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2121

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	10.0	3.0	5.0	.0	.0	18.0
NNE	.0	.0	.0	4.0	1.0	.0	.0	5.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	5.0	10.0	1.0	.0	.0	.0	16.0
S	.0	2.0	12.0	6.0	.0	.0	.0	20.0
SSW	.0	3.0	4.0	.0	.0	.0	.0	7.0
SW	.0	.0	4.0	.0	.0	.0	.0	4.0
WSW	.0	.0	3.0	1.0	.0	.0	.0	4.0
W	.0	.0	7.0	1.0	.0	.0	.0	8.0
WNW	.0	.0	8.0	2.0	.0	.0	.0	10.0
NW	.0	.0	5.0	4.0	.0	.0	.0	9.0
NNW	.0	.0	5.0	2.0	.0	.0	.0	7.0
TOTAL	.0	10.0	68.0	24.0	6.0	.0	.0	108.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 87
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2121

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	13.0	6.0	4.0	.0	.0	23.0
NNE	.0	1.0	4.0	1.0	.0	.0	.0	6.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	1.0	1.0	.0	.0	.0	.0	2.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	1.0	.0	.0	.0	.0	.0	1.0
SSE	.0	3.0	7.0	.0	.0	.0	.0	10.0
S	.0	2.0	18.0	7.0	.0	.0	.0	27.0
SSW	.0	1.0	6.0	.0	.0	.0	.0	7.0
SW	.0	3.0	3.0	1.0	.0	.0	.0	7.0
WSW	.0	1.0	4.0	1.0	.0	.0	.0	6.0
W	.0	.0	4.0	1.0	.0	.0	.0	5.0
WNW	.0	.0	8.0	1.0	.0	.0	.0	9.0
NW	.0	.0	3.0	2.0	1.0	.0	.0	6.0
NNW	.0	.0	6.0	2.0	.0	.0	.0	8.0
TOTAL	.0	13.0	77.0	22.0	5.0	.0	.0	117.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 87
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2121

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	24.0	111.0	64.0	6.0	.0	.0	205.0
NNE	.0	29.0	99.0	28.0	8.0	.0	.0	164.0
NE	.0	8.0	20.0	.0	.0	.0	.0	28.0
ENE	.0	6.0	2.0	.0	.0	.0	.0	8.0
E	.0	2.0	.0	.0	.0	.0	.0	2.0
ESE	.0	1.0	.0	.0	.0	.0	.0	1.0
SE	.0	2.0	.0	.0	.0	.0	.0	2.0
SSE	.0	13.0	26.0	5.0	1.0	.0	.0	45.0
S	.0	18.0	59.0	31.0	.0	.0	.0	108.0
SSW	.0	13.0	19.0	1.0	.0	.0	.0	33.0
SW	.0	6.0	12.0	1.0	.0	.0	.0	19.0
WSW	.0	4.0	16.0	2.0	.0	.0	.0	22.0
W	.0	3.0	43.0	3.0	.0	.0	.0	49.0
WNW	.0	5.0	48.0	13.0	1.0	.0	.0	67.0
NW	.0	2.0	38.0	19.0	4.0	.0	.0	63.0
NNW	.0	10.0	56.0	24.0	1.0	.0	.0	91.0
TOTAL	.0	146.0	549.0	191.0	21.0	.0	.0	907.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 87
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2121

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

May, 2000
 Re: Indian Point Unit Nos. 1 & 2
 Docket Nos. 50-03 & 50-24

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.4	23.0	14.0	.0	.0	.0	.0	37.4
NNE	.7	39.0	33.0	.0	.0	.0	.0	72.7
NE	.8	46.0	37.0	.0	.0	.0	.0	83.8
ENE	.3	16.0	3.0	.0	.0	.0	.0	19.3
E	.2	11.0	.0	.0	.0	.0	.0	11.2
ESE	.1	8.0	1.0	.0	.0	.0	.0	9.1
SE	.2	13.0	.0	.0	.0	.0	.0	13.2
SSE	.5	28.0	19.0	10.0	1.0	.0	.0	58.5
S	.8	47.0	69.0	17.0	.0	.0	.0	133.8
SSW	.6	36.0	22.0	2.0	.0	.0	.0	60.6
SW	.4	24.0	8.0	.0	.0	.0	.0	32.4
WSW	.3	18.0	10.0	.0	.0	.0	.0	28.3
W	.2	14.0	17.0	2.0	.0	.0	.0	33.2
WNW	.2	11.0	13.0	.0	.0	.0	.0	24.2
NW	.2	9.0	9.0	.0	.0	.0	.0	18.2
NNW	.1	7.0	10.0	.0	.0	.0	.0	17.1
TOTAL	6.0	350.0	265.0	31.0	1.0	.0	.0	653.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 87
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2121

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.3	23.0	1.0	.0	.0	.0	.0	24.3
NNE	.7	64.0	14.0	.0	.0	.0	.0	78.7
NE	.2	17.0	14.0	.0	.0	.0	.0	31.2
ENE	.1	11.0	1.0	.0	.0	.0	.0	12.1
E	.1	6.0	1.0	.0	.0	.0	.0	7.1
ESE	.0	2.0	1.0	.0	.0	.0	.0	3.0
SE	.1	7.0	.0	.0	.0	.0	.0	7.1
SSE	.1	8.0	.0	.0	.0	.0	.0	8.1
S	.1	8.0	3.0	.0	.0	.0	.0	11.1
SSW	.1	10.0	.0	.0	.0	.0	.0	10.1
SW	.1	5.0	.0	.0	.0	.0	.0	5.1
WSW	.0	2.0	.0	.0	.0	.0	.0	2.0
W	.0	2.0	.0	.0	.0	.0	.0	2.0
WNW	.0	1.0	.0	.0	.0	.0	.0	1.0
NW	.0	1.0	.0	.0	.0	.0	.0	1.0
NNW	.1	8.0	.0	.0	.0	.0	.0	8.1
TOTAL	2.0	175.0	35.0	.0	.0	.0	.0	212.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 87
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2121

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.4	7.0	.0	.0	.0	.0	.0	7.4
NNE	.3	6.0	2.0	.0	.0	.0	.0	8.3
NE	.1	2.0	3.0	.0	.0	.0	.0	5.1
ENE	.1	1.0	.0	.0	.0	.0	.0	1.1
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.1	1.0	.0	.0	.0	.0	.0	1.1
SW	.1	1.0	.0	.0	.0	.0	.0	1.1
WSW	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	1.0	18.0	5.0	.0	.0	.0	.0	24.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 87
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2121

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 10.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	1.0	77.0	151.0	77.0	16.0	.0	.0	322.0
NNE	1.7	139.0	152.0	36.0	10.0	.0	.0	338.7
NE	1.1	73.0	74.0	.0	.0	.0	.0	148.1
ENE	.5	35.0	7.0	.0	.0	.0	.0	42.5
E	.3	19.0	1.0	.0	.0	.0	.0	20.3
ESE	.2	11.0	2.0	.0	.0	.0	.0	13.2
SE	.3	23.0	.0	.0	.0	.0	.0	23.3
SSE	.6	57.0	82.0	16.0	2.0	.0	.0	157.6
S	.9	81.0	169.0	66.0	.0	.0	.0	316.9
SSW	.8	67.0	54.0	4.0	.0	.0	.0	125.8
SW	.5	41.0	29.0	3.0	.0	.0	.0	73.5
WSW	.3	26.0	33.0	5.0	.0	.0	.0	64.3
W	.3	20.0	76.0	10.0	.0	.0	.0	106.3
WNW	.2	18.0	84.0	17.0	1.0	.0	.0	120.2
NW	.2	12.0	63.0	28.0	5.0	.0	.0	108.2
NNW	.2	25.0	80.0	34.0	1.0	.0	.0	140.2
TOTAL	9.0	724.0	1057.0	296.0	35.0	.0	.0	2121.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 10.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 87
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2121

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	1.0	6.0	2.0	1.0	10.0
NNE	.0	.0	.0	.0	.0	1.0	.0	1.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	3.0	.0	.0	.0	3.0
SSE	.0	1.0	5.0	18.0	1.0	.0	.0	25.0
S	.0	4.0	3.0	2.0	6.0	.0	.0	15.0
SSW	.0	2.0	.0	.0	.0	.0	.0	2.0
SW	.0	2.0	1.0	.0	1.0	.0	.0	4.0
WSW	.0	.0	1.0	.0	2.0	1.0	.0	4.0
W	.0	.0	.0	3.0	3.0	1.0	.0	7.0
WNW	.0	.0	.0	5.0	5.0	.0	2.0	12.0
NW	.0	.0	2.0	5.0	7.0	6.0	5.0	25.0
NNW	.0	.0	.0	1.0	.0	2.0	1.0	4.0
TOTAL	.0	9.0	12.0	38.0	31.0	13.0	9.0	112.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	2.0	6.0	5.0	2.0	5.0	20.0
NNE	.0	.0	.0	.0	.0	1.0	.0	1.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	2.0	13.0	8.0	.0	.0	.0	23.0
S	.0	2.0	4.0	3.0	4.0	.0	.0	13.0
SSW	.0	.0	2.0	1.0	2.0	.0	.0	5.0
SW	.0	.0	2.0	1.0	.0	.0	.0	3.0
WSW	.0	.0	.0	4.0	3.0	1.0	.0	8.0
W	.0	.0	1.0	.0	4.0	1.0	.0	6.0
WNW	.0	.0	1.0	2.0	5.0	1.0	.0	9.0
NW	.0	.0	.0	4.0	8.0	3.0	1.0	16.0
NNW	.0	.0	1.0	4.0	.0	3.0	.0	8.0
TOTAL	.0	4.0	26.0	33.0	31.0	12.0	6.0	112.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	3.0	7.0	4.0	4.0	4.0	22.0
NNE	.0	.0	2.0	3.0	1.0	.0	.0	6.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	1.0	.0	.0	.0	.0	1.0
ESE	.0	1.0	.0	.0	.0	.0	.0	1.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	5.0	11.0	4.0	1.0	.0	.0	21.0
S	.0	.0	4.0	7.0	2.0	.0	.0	13.0
SSW	.0	1.0	5.0	3.0	3.0	.0	.0	12.0
SW	.0	.0	2.0	2.0	.0	1.0	.0	5.0
WSW	.0	.0	3.0	2.0	1.0	.0	.0	6.0
W	.0	.0	1.0	2.0	1.0	2.0	.0	6.0
WNW	.0	.0	.0	2.0	6.0	.0	.0	8.0
NW	.0	.0	.0	3.0	.0	1.0	5.0	9.0
NNW	.0	.0	4.0	3.0	1.0	.0	.0	8.0
TOTAL	.0	7.0	36.0	38.0	20.0	8.0	9.0	118.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

May, 2000
 Re: Indian Point Unit Nos. 1 & 2
 Docket Nos. 50-03 & 50-24

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	4.0	32.0	72.0	58.0	30.0	12.0	208.0
NNE	.0	5.0	60.0	40.0	7.0	.0	1.0	113.0
NE	.0	6.0	13.0	5.0	1.0	.0	.0	25.0
ENE	.0	1.0	4.0	.0	.0	.0	.0	5.0
E	.0	3.0	2.0	1.0	.0	.0	.0	6.0
ESE	.0	1.0	1.0	.0	.0	.0	.0	2.0
SE	.0	3.0	3.0	1.0	.0	.0	.0	7.0
SSE	.0	11.0	13.0	12.0	12.0	2.0	1.0	51.0
S	.0	11.0	21.0	22.0	18.0	.0	.0	72.0
SSW	.0	5.0	13.0	27.0	15.0	.0	.0	60.0
SW	.0	6.0	6.0	5.0	11.0	1.0	.0	29.0
WSW	.0	.0	2.0	9.0	13.0	1.0	.0	25.0
W	.0	.0	1.0	23.0	10.0	.0	.0	34.0
WNW	.0	1.0	7.0	31.0	25.0	11.0	3.0	78.0
NW	.0	1.0	5.0	37.0	59.0	28.0	15.0	145.0
NNW	.0	2.0	11.0	27.0	40.0	15.0	5.0	100.0
TOTAL	.0	60.0	194.0	312.0	269.0	88.0	37.0	960.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	11.0	23.0	11.0	1.0	.0	.0	46.0
NNE	.0	14.0	68.0	18.0	.0	.0	.0	100.0
NE	.0	7.0	11.0	1.0	.0	.0	.0	19.0
ENE	.0	4.0	5.0	2.0	.0	.0	.0	11.0
E	.0	2.0	1.0	.0	.0	.0	.0	3.0
ESE	.0	3.0	1.0	1.0	.0	.0	.0	5.0
SE	.0	9.0	.0	.0	.0	.0	.0	9.0
SSE	.0	8.0	21.0	16.0	7.0	3.0	1.0	56.0
S	.0	8.0	22.0	39.0	29.0	3.0	.0	101.0
SSW	.0	9.0	32.0	37.0	8.0	.0	.0	86.0
SW	.0	9.0	31.0	25.0	1.0	.0	.0	66.0
WSW	.0	4.0	15.0	20.0	2.0	.0	.0	41.0
W	.0	5.0	8.0	17.0	1.0	.0	1.0	32.0
WNW	.0	2.0	3.0	24.0	2.0	.0	1.0	32.0
NW	.0	4.0	9.0	14.0	6.0	.0	.0	33.0
NNW	.0	.0	14.0	7.0	1.0	.0	.0	22.0
TOTAL	.0	99.0	264.0	232.0	58.0	6.0	3.0	662.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

May, 2000
 Re: Indian Point Unit Nos. 1 & 2
 Docket Nos. 50-03 & 50-24

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	7.0	17.0	2.0	.0	.0	.0	26.0
NNE	.0	15.0	28.0	2.0	.0	.0	.0	45.0
NE	.0	12.0	3.0	.0	.0	.0	.0	15.0
ENE	.0	4.0	1.0	.0	.0	.0	.0	5.0
E	.0	3.0	.0	.0	.0	.0	.0	3.0
ESE	.0	3.0	.0	.0	.0	.0	.0	3.0
SE	.0	3.0	.0	.0	.0	.0	.0	3.0
SSE	.0	4.0	2.0	.0	.0	.0	.0	6.0
S	.0	5.0	6.0	3.0	1.0	.0	.0	15.0
SSW	.0	13.0	6.0	7.0	.0	.0	.0	26.0
SW	.0	9.0	6.0	5.0	.0	.0	.0	20.0
WSW	.0	6.0	4.0	2.0	.0	.0	.0	12.0
W	.0	5.0	2.0	1.0	.0	.0	.0	8.0
WNW	.0	5.0	1.0	1.0	.0	.0	.0	7.0
NW	.0	6.0	1.0	1.0	.0	.0	.0	8.0
NNW	.0	6.0	7.0	1.0	.0	.0	.0	14.0
TOTAL	.0	106.0	84.0	25.0	1.0	.0	.0	216.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	2.0	.0	.0	.0	.0	.0	2.0
NNE	.0	2.0	4.0	.0	.0	.0	.0	6.0
NE	.0	2.0	.0	.0	.0	.0	.0	2.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	1.0	.0	.0	.0	.0	.0	1.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	1.0	.0	.0	.0	.0	.0	1.0
SSW	.0	3.0	.0	.0	.0	.0	.0	3.0
SW	.0	1.0	.0	2.0	.0	.0	.0	3.0
WSW	.0	1.0	1.0	.0	.0	.0	.0	2.0
W	.0	2.0	.0	.0	.0	.0	.0	2.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	1.0	.0	.0	.0	.0	1.0
NNW	.0	.0	1.0	.0	.0	.0	.0	1.0
TOTAL	.0	15.0	7.0	2.0	.0	.0	.0	24.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 60.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	24.0	77.0	99.0	74.0	38.0	22.0	334.0
NNE	.0	36.0	162.0	63.0	8.0	2.0	1.0	272.0
NE	.0	27.0	27.0	6.0	1.0	.0	.0	61.0
ENE	.0	9.0	10.0	2.0	.0	.0	.0	21.0
E	.0	8.0	4.0	1.0	.0	.0	.0	13.0
ESE	.0	9.0	2.0	1.0	.0	.0	.0	12.0
SE	.0	15.0	3.0	4.0	.0	.0	.0	22.0
SSE	.0	31.0	65.0	58.0	21.0	5.0	2.0	182.0
S	.0	31.0	60.0	76.0	60.0	3.0	.0	230.0
SSW	.0	33.0	58.0	75.0	28.0	.0	.0	194.0
SW	.0	27.0	48.0	40.0	13.0	2.0	.0	130.0
WSW	.0	11.0	26.0	37.0	21.0	3.0	.0	98.0
W	.0	12.0	13.0	46.0	19.0	4.0	1.0	95.0
WNW	.0	8.0	12.0	65.0	43.0	12.0	6.0	146.0
NW	.0	11.0	18.0	64.0	80.0	38.0	26.0	237.0
NNW	.0	8.0	38.0	43.0	42.0	20.0	6.0	157.0
TOTAL	.0	300.0	623.0	680.0	410.0	127.0	64.0	2204.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 60.00
 TEMPERATURE SENSOR SEPARATION (METERS) 50.90

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: A

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	.0	.0	.0	.0	.0	.0	.0	.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: B

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	2.0	.0	.0	.0	2.0
SSE	.0	.0	.0	1.0	.0	.0	.0	1.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	1.0	.0	1.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	1.0	.0	1.0
NNW	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	.0	.0	.0	3.0	.0	2.0	.0	5.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: C

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	3.0	2.0	4.0	9.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	1.0	6.0	.0	.0	.0	7.0
SSE	.0	.0	2.0	6.0	3.0	.0	.0	11.0
S	.0	.0	.0	1.0	1.0	.0	.0	2.0
SSW	.0	.0	1.0	.0	1.0	.0	.0	2.0
SW	.0	.0	1.0	.0	1.0	2.0	.0	4.0
WSW	.0	.0	.0	1.0	.0	.0	.0	1.0
W	.0	.0	.0	2.0	4.0	2.0	.0	8.0
WNW	.0	.0	.0	5.0	3.0	1.0	5.0	14.0
NW	.0	.0	.0	4.0	3.0	3.0	5.0	15.0
NNW	.0	.0	.0	1.0	5.0	1.0	1.0	8.0
TOTAL	.0	.0	5.0	26.0	24.0	11.0	15.0	81.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: D

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	7.0	29.0	77.0	69.0	26.0	24.0	232.0
NNE	.0	5.0	31.0	19.0	5.0	.0	.0	60.0
NE	.0	6.0	2.0	1.0	3.0	.0	.0	12.0
ENE	.0	2.0	3.0	3.0	.0	.0	.0	8.0
E	.0	1.0	2.0	.0	.0	.0	.0	3.0
ESE	.0	1.0	1.0	2.0	.0	.0	.0	4.0
SE	.0	2.0	8.0	6.0	4.0	2.0	2.0	24.0
SSE	.0	7.0	35.0	36.0	17.0	5.0	.0	100.0
S	.0	5.0	14.0	31.0	48.0	14.0	.0	112.0
SSW	.0	1.0	10.0	26.0	12.0	.0	.0	49.0
SW	.0	1.0	7.0	15.0	18.0	6.0	.0	47.0
WSW	.0	.0	5.0	21.0	24.0	5.0	.0	55.0
W	.0	1.0	6.0	43.0	34.0	6.0	2.0	92.0
WNW	.0	.0	7.0	50.0	62.0	28.0	29.0	176.0
NW	.0	.0	18.0	32.0	73.0	35.0	19.0	177.0
NNW	.0	1.0	20.0	36.0	28.0	15.0	16.0	116.0
TOTAL	.0	40.0	198.0	398.0	397.0	142.0	92.0	1267.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: E

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	7.0	32.0	25.0	1.0	.0	.0	65.0
NNE	.0	4.0	14.0	2.0	.0	.0	.0	20.0
NE	.0	9.0	11.0	1.0	.0	.0	.0	21.0
ENE	.0	3.0	1.0	1.0	1.0	.0	.0	6.0
E	.0	6.0	8.0	.0	.0	.0	.0	14.0
ESE	.0	10.0	3.0	.0	.0	.0	.0	13.0
SE	.0	11.0	9.0	3.0	2.0	.0	2.0	27.0
SSE	.0	20.0	36.0	26.0	18.0	6.0	4.0	110.0
S	.0	24.0	55.0	58.0	30.0	1.0	.0	168.0
SSW	.0	8.0	20.0	32.0	13.0	.0	.0	73.0
SW	.0	12.0	11.0	25.0	7.0	.0	.0	55.0
WSW	.0	5.0	10.0	20.0	8.0	.0	.0	43.0
W	.0	5.0	2.0	9.0	3.0	2.0	.0	21.0
WNW	.0	5.0	7.0	10.0	2.0	.0	.0	24.0
NW	.0	4.0	6.0	9.0	1.0	.0	.0	20.0
NNW	.0	3.0	16.0	10.0	.0	.0	.0	29.0
TOTAL	.0	136.0	241.0	231.0	86.0	9.0	6.0	709.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: F

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	4.0	5.0	3.0	.0	.0	.0	12.0
NNE	.0	2.0	9.0	.0	.0	.0	.0	11.0
NE	.0	2.0	1.0	.0	.0	.0	.0	3.0
ENE	.0	3.0	.0	.0	.0	.0	.0	3.0
E	.0	1.0	.0	.0	.0	.0	.0	1.0
ESE	.0	3.0	.0	.0	.0	.0	.0	3.0
SE	.0	3.0	2.0	.0	.0	.0	.0	5.0
SSE	.0	9.0	10.0	.0	.0	.0	.0	19.0
S	.0	12.0	12.0	2.0	.0	.0	.0	26.0
SSW	.0	8.0	6.0	1.0	.0	.0	.0	15.0
SW	.0	4.0	1.0	2.0	.0	.0	.0	7.0
WSW	.0	3.0	4.0	3.0	.0	.0	.0	10.0
W	.0	2.0	.0	.0	.0	.0	.0	2.0
WNW	.0	1.0	2.0	3.0	.0	.0	.0	6.0
NW	.0	2.0	8.0	1.0	.0	.0	.0	11.0
NNW	.0	2.0	4.0	2.0	.0	.0	.0	8.0
TOTAL	.0	61.0	64.0	17.0	.0	.0	.0	142.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: G

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	.0	.0	.0	.0	.0	.0	.0
NNE	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0
ENE	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0
ESE	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0
SSE	.0	.0	.0	.0	.0	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0
SSW	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0
WSW	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0
WNW	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0
NNW	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	.0	.0	.0	.0	.0	.0	.0	.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO ENTRIES IN EACH STABILITY.

INDIAN POINT (UNITS 2 & 3) - JOINT FREQUENCY DISTRIBUTIONS - OCT/NOV/DEC 1999

BASIC METEOROLOGICAL OBSERVATIONS AT 122.0 (M)
 FOR PERIOD [Year/Month/Day/Hour]
 [1999/10/ 1/ 0] TO [1999/12/31/23]

PASQUILL STABILITY: ALL

WIND FROM	WIND SPEED (MPH)							TOTAL
	CALMS	.60 - 3.50	3.50 - 7.50	7.50 - 12.50	12.50 - 18.50	18.50 - 24.00	24.00 - 80.00	
N	.0	18.0	66.0	105.0	73.0	28.0	28.0	318.0
NNE	.0	11.0	54.0	21.0	5.0	.0	.0	91.0
NE	.0	17.0	14.0	2.0	3.0	.0	.0	36.0
ENE	.0	8.0	4.0	4.0	1.0	.0	.0	17.0
E	.0	8.0	10.0	.0	.0	.0	.0	18.0
ESE	.0	14.0	4.0	2.0	.0	.0	.0	20.0
SE	.0	16.0	20.0	17.0	6.0	2.0	4.0	65.0
SSE	.0	36.0	83.0	69.0	38.0	11.0	4.0	241.0
S	.0	41.0	81.0	92.0	79.0	15.0	.0	308.0
SSW	.0	17.0	37.0	59.0	26.0	.0	.0	139.0
SW	.0	17.0	20.0	42.0	26.0	8.0	.0	113.0
WSW	.0	8.0	19.0	45.0	32.0	5.0	.0	109.0
W	.0	8.0	8.0	54.0	41.0	11.0	2.0	124.0
WNW	.0	6.0	16.0	68.0	67.0	29.0	34.0	220.0
NW	.0	6.0	32.0	46.0	77.0	39.0	24.0	224.0
NNW	.0	6.0	40.0	49.0	33.0	16.0	17.0	161.0
TOTAL	.0	237.0	508.0	675.0	507.0	164.0	113.0	2204.0

DATA MEASUREMENT HEIGHT (M ABOVE GRADE) 122.00
 TEMPERATURE SENSOR SEPARATION (METERS) 112.00

MISSING OBS. DURING THIS PERIOD (ALL STABILITIES) 4
 VALID OBSER. DURING THIS PERIOD (ALL STABILITIES) 2204

NOTE: CALMS WERE DISTRIBUTED IN PROPORTION TO THE FREQUENCY
 OF WINDS IN THE LOWEST WIND SPEED GROUP WITH NON-ZERO
 ENTRIES IN EACH STABILITY.

ANNUAL
EFFLUENT AND WASTE DISPOSAL REPORT
F - REPORTABLE CHANGES
TO THE PROCESS CONTROL PROGRAM (PCP)
OFFSITE DOSE CALCULATION MANUAL (ODCM)
AND RADIOACTIVE WASTE SYSTEMS

G - REPORTABLE ITEMS
THE RADIOACTIVE LIQUID EFFLUENT MONITORING
INSTRUMENTATION
RADIOACTIVE GASEOUS EFFLUENT MONITORING
INSTRUMENTATION

H - UNPLANNED RELEASES

1999

SECTION F

Reportable Changes

A. Process Control Program (PCP)

Section 6.14.1 of the Indian Point Unit No. 2 Technical Specifications requires that licensee initiated changes to PCP be reported to the Commission in the Annual Radioactive Effluent Release Report. During the 1999 reporting period there was one change to the PCP which allowed for the dewatering of High Integrity Containers at the Chem Nuclear Facility in Barnwell South Carolina.

B. Offsite Dose Calculation Manual (ODCM)

Section 6.15.2 of the Indian Point Unit No. 2 Technical Specifications requires that changes to ODCM be reported to the Commission in the Annual Radioactive Effluent Release Report. During the 1999 reporting period, there was one revision to the ODCM which added a Thermoluminescent Dosimeter (TLD) at sector 8, Warren Road in Cortlandt. This addition was made in an effort to meet the Tech Spec Requirement for a TLD in the 6 to 8 kilometer range. No other TLDs were removed. No other changes were made to the ODCM.

C. Radioactive Waste Systems (RWS)

Section 6.16.1 of the Indian Point Unit No. 2 Technical Specifications requires that major changes to RWS be reported to the Commission in the Annual Radioactive Effluent Release Report. During the 1999 reporting period there were no major changes made to the RWS.

SECTION G

Reportable Items

A. Radioactive Liquid Effluent Monitoring Instrumentation

None

B. Radioactive Gaseous Effluent Monitoring Instrumentation

None

SECTION H

Unplanned Releases

A. Unplanned Liquid Releases

There was one continuous unplanned liquid release from the Unit 1 Containment Spray Sump beginning in October 1999 through November 15, 1999, an analysis of the pathway indicated a higher than expected concentration of Cesium-137. The primary source of water to this sump is known to be the Steam Generator Blowdown sample drains and associated sample cooling water, the October 1999 samples from the above sump indicated cesium samples higher than the known Steam Generator Blowdown samples. This additional source was from other than considered pathway(s) and is treated as an unplanned release.

The release resulted in a conservatively estimated, continuous release rate of 20 gallons per minute of water containing 5.5 E-7 uCi/cc Cesium-137 from an unconsidered pathway. The release was quantified and was included in the dose assessment from the site, in October and November 1999 the release was accounted for in release IDs U1CS1099 and U1CS1199 respectively. Based on this result, the release was estimated to be 0.0187% of the Technical Specification limit.

The apparent sources of the Cesium activity that was measured in this sump include:

- Blowdown Sample Drains
- Leakage from Unit 1 Containment Annulus area around an installed plug
- In leakage of groundwater contaminated from leakage from Unit 1 Pools
- Leaching of Cesium from sludge present in the sump

To prevent recurrence and end the unplanned release, on November 15, 1999 a Temporary Facility Change (TFC) was installed to redirect the Steam Generator Blowdown sample drains and associated sample cooling water away from this sump. In addition, the sump was also cleaned to remove any possibility of leaching Cesium from the sludge in the sump.

B. Unplanned Gaseous Releases

There were no unplanned gaseous releases during the reporting period.