

56-286

MAR 12 1973

Jacob Kastner, Chief, Radiological Assessment Branch, L
ATMOSPHERIC DISPERSION VALUES FOR INDIAN POINT STATION -
UNIT 3

Attached are the estimated annual average atmospheric
dispersion values for Indian Point Station - Unit 3.

These values are based on a composite year of joint
frequency distributions of wind speed and direction by
atmospheric stability class furnished by the applicant
in Supplement 13 of the FSAR, dated March 1973, and pres-
ented in Table 2.6-1 of the supplement. The composite
year of data was composed of data from the following
individual months:

June through July and November through
70

August

September through October 1972

William P. Gammill, Chief
Site Analysis Branch
Directorate of Licensing

Enclosure:
As stated

cc: W. Kreger
M. J. Oestmann
E. H. Markee

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SURNAME ▶	EHMarkee:bas	WPGammill			
DATE ▶	3/9/73	3/12/73			

INDIAN POINT NUMBER 3

9 mi. S
1.1 x 10⁻⁷

ANNUAL AVERAGE DIRECTION FROM SITE	CHI/Q (SEC/METER CUBED)					DISTANCE IN MILES					
	0.500	1.000	2.000	3.000	4.000	5.000	10.000	20.000	30.000	40.000	50.000
180.0	0.647E-05	0.245E-05	0.915E-06	0.511E-06	0.338E-06	0.246E-06	0.933E-07	0.374E-07	0.221E-07	0.153E-07	0.114E-07
202.5	0.929E-05	0.363E-05	0.138E-05	0.781E-06	0.521E-06	0.381E-06	0.148E-06	0.603E-07	0.360E-07	0.249E-07	0.188E-07
225.0	0.603E-05	0.240E-05	0.927E-06	0.529E-06	0.355E-06	0.261E-06	0.103E-06	0.425E-07	0.255E-07	0.178E-07	0.135E-07
247.5	0.250E-05	0.984E-06	0.377E-06	0.214E-06	0.143E-06	0.105E-06	0.411E-07	0.168E-07	0.101E-07	0.698E-08	0.526E-08
270.0	0.198E-05	0.771E-06	0.293E-06	0.166E-06	0.110E-06	0.806E-07	0.312E-07	0.128E-07	0.765E-08	0.532E-08	0.402E-08
292.5	0.189E-05	0.724E-06	0.271E-06	0.152E-06	0.100E-06	0.730E-07	0.277E-07	0.112E-07	0.664E-08	0.459E-08	0.345E-08
315.0	0.321E-05	0.124E-05	0.470E-06	0.264E-06	0.176E-06	0.128E-06	0.492E-07	0.200E-07	0.120E-07	0.830E-08	0.626E-08
337.5	0.482E-05	0.182E-05	0.676E-06	0.377E-06	0.249E-06	0.181E-06	0.687E-07	0.275E-07	0.162E-07	0.112E-07	0.836E-08
0.0	0.513E-05	0.194E-05	0.722E-06	0.402E-06	0.266E-06	0.193E-06	0.731E-07	0.293E-07	0.174E-07	0.120E-07	0.897E-08
22.5	0.464E-05	0.181E-05	0.692E-06	0.392E-06	0.262E-06	0.192E-06	0.746E-07	0.306E-07	0.183E-07	0.127E-07	0.961E-08
45.0	0.389E-05	0.153E-05	0.589E-06	0.335E-06	0.225E-06	0.165E-06	0.646E-07	0.266E-07	0.160E-07	0.111E-07	0.842E-08
67.5	0.237E-05	0.924E-06	0.352E-06	0.199E-06	0.133E-06	0.975E-07	0.378E-07	0.155E-07	0.928E-08	0.645E-08	0.487E-08
90.0	0.232E-05	0.898E-06	0.342E-06	0.193E-06	0.129E-06	0.945E-07	0.367E-07	0.150E-07	0.898E-08	0.624E-08	0.471E-08
112.5	0.274E-05	0.105E-05	0.394E-06	0.221E-06	0.147E-06	0.107E-06	0.409E-07	0.166E-07	0.986E-08	0.683E-08	0.514E-08
135.0	0.288E-05	0.110E-05	0.413E-06	0.232E-06	0.154E-06	0.112E-06	0.431E-07	0.175E-07	0.104E-07	0.722E-08	0.544E-08
157.5	0.359E-05	0.137E-05	0.514E-06	0.288E-06	0.191E-06	0.139E-06	0.532E-07	0.215E-07	0.128E-07	0.883E-08	0.664E-08

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
180.0	0.376E-05	0.141E-05	0.670E-06	0.411E-06	0.286E-06	0.141E-06	0.549E-07	0.281E-07	0.182E-07	0.131E-07
202.5	0.547E-05	0.211E-05	0.102E-05	0.631E-06	0.443E-06	0.221E-06	0.878E-07	0.455E-07	0.296E-07	0.215E-07
225.0	0.358E-05	0.140E-05	0.686E-06	0.429E-06	0.303E-06	0.153E-06	0.616E-07	0.322E-07	0.211E-07	0.154E-07
247.5	0.148E-05	0.574E-06	0.279E-06	0.174E-06	0.122E-06	0.613E-07	0.245E-07	0.127E-07	0.829E-08	0.602E-08
270.0	0.117E-05	0.448E-06	0.216E-06	0.134E-06	0.937E-07	0.467E-07	0.185E-07	0.965E-08	0.631E-08	0.460E-08
292.5	0.110E-05	0.417E-06	0.199E-06	0.122E-06	0.850E-07	0.418E-07	0.164E-07	0.842E-08	0.546E-08	0.395E-08
315.0	0.138E-05	0.719E-06	0.345E-06	0.213E-06	0.149E-06	0.739E-07	0.292E-07	0.151E-07	0.985E-08	0.716E-08
337.5	0.279E-05	0.104E-05	0.495E-06	0.303E-06	0.211E-06	0.104E-06	0.404E-07	0.206E-07	0.133E-07	0.959E-08
0.0	0.298E-05	0.111E-05	0.528E-06	0.324E-06	0.225E-06	0.111E-06	0.431E-07	0.221E-07	0.142E-07	0.103E-07
22.5	0.274E-05	0.105E-05	0.510E-06	0.317E-06	0.223E-06	0.111E-06	0.445E-07	0.232E-07	0.151E-07	0.110E-07
45.0	0.230E-05	0.894E-06	0.435E-06	0.272E-06	0.191E-06	0.962E-07	0.386E-07	0.202E-07	0.132E-07	0.962E-08
67.5	0.140E-05	0.537E-06	0.260E-06	0.161E-06	0.113E-06	0.565E-07	0.225E-07	0.117E-07	0.765E-08	0.557E-08
90.0	0.136E-05	0.522E-06	0.252E-06	0.156E-06	0.110E-06	0.548E-07	0.218E-07	0.114E-07	0.740E-08	0.538E-08
112.5	0.160E-05	0.605E-06	0.289E-06	0.178E-06	0.124E-06	0.615E-07	0.242E-07	0.125E-07	0.811E-08	0.588E-08
135.0	0.168E-05	0.635E-06	0.303E-06	0.187E-06	0.131E-06	0.647E-07	0.255E-07	0.132E-07	0.858E-08	0.622E-08
157.5	0.209E-05	0.790E-06	0.377E-06	0.232E-06	0.162E-06	0.801E-07	0.315E-07	0.162E-07	0.105E-07	0.760E-08

SMOOTHED SEGMENTS (CHI/Q AVERAGED WITH VALUES FROM NEIGHBORING SEGMENTS)

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
180.0	0.377E-05	0.143E-05	0.683E-06	0.421E-06	0.294E-06	0.146E-06	0.573E-07	0.295E-07	0.191E-07	0.138E-07
202.5	0.457E-05	0.176E-05	0.847E-06	0.526E-06	0.369E-06	0.184E-06	0.730E-07	0.378E-07	0.246E-07	0.179E-07
225.0	0.353E-05	0.137E-05	0.667E-06	0.416E-06	0.293E-06	0.147E-06	0.589E-07	0.307E-07	0.200E-07	0.146E-07
247.5	0.193E-05	0.750E-06	0.365E-06	0.227E-06	0.160E-06	0.805E-07	0.323E-07	0.168E-07	0.110E-07	0.800E-08
270.0	0.123E-05	0.472E-06	0.227E-06	0.141E-06	0.986E-07	0.491E-07	0.195E-07	0.101E-07	0.659E-08	0.479E-08
292.5	0.131E-05	0.500E-06	0.240E-06	0.148E-06	0.103E-06	0.511E-07	0.201E-07	0.104E-07	0.677E-08	0.491E-08
315.0	0.192E-05	0.725E-06	0.346E-06	0.213E-06	0.149E-06	0.734E-07	0.288E-07	0.148E-07	0.962E-08	0.697E-08
337.5	0.261E-05	0.981E-06	0.466E-06	0.286E-06	0.199E-06	0.980E-07	0.383E-07	0.196E-07	0.127E-07	0.916E-08
0.0	0.287E-05	0.108E-05	0.515E-06	0.317E-06	0.221E-06	0.109E-06	0.428E-07	0.220E-07	0.142E-07	0.103E-07
22.5	0.269E-05	0.103E-05	0.496E-06	0.307E-06	0.216E-06	0.107E-06	0.427E-07	0.221E-07	0.144E-07	0.105E-07
45.0	0.218E-05	0.845E-06	0.410E-06	0.255E-06	0.180E-06	0.901E-07	0.361E-07	0.188E-07	0.123E-07	0.895E-08
67.5	0.161E-05	0.622E-06	0.302E-06	0.188E-06	0.132E-06	0.660E-07	0.264E-07	0.137E-07	0.898E-08	0.653E-08
90.0	0.143E-05	0.546E-06	0.263E-06	0.163E-06	0.114E-06	0.569E-07	0.226E-07	0.117E-07	0.764E-08	0.555E-08
112.5	0.156E-05	0.592E-06	0.283E-06	0.175E-06	0.122E-06	0.606E-07	0.239E-07	0.124E-07	0.805E-08	0.584E-08
135.0	0.176E-05	0.666E-06	0.318E-06	0.196E-06	0.137E-06	0.678E-07	0.267E-07	0.138E-07	0.894E-08	0.648E-08
157.5	0.240E-05	0.907E-06	0.432E-06	0.266E-06	0.185E-06	0.914E-07	0.358E-07	0.184E-07	0.119E-07	0.864E-08

SEGMENT BOUNDARIES IN MILES

1-2 2-3 3-4 4-5 5-10 10-20 20-30 30-40 40-50

0.234E-05 0.892E-06 0.429E-06 0.265E-06 0.186E-06 0.924E-07 0.366E-07 0.189E-07 0.123E-07 0.893E-08

ANNUAL AVERAGES AT THE SITE BOUNDARIES

DIRECTION DISTANCE CHI/Q
FROM SITE MILES SEC/METER CUBED

180.0	0.379	0.945E-05
202.5	0.231	0.261E-04
225.0	0.217	0.189E-04
247.5	0.217	0.771E-05
270.0	0.217	0.631E-05
292.5	0.217	0.582E-05
315.0	0.217	0.101E-04
337.5	0.217	0.150E-04
0.0	0.217	0.160E-04
22.5	0.217	0.146E-04
45.0	0.412	0.506E-05
67.5	0.530	0.220E-05
90.0	0.394	0.322E-05
112.5	0.355	0.441E-05
135.0	0.355	0.464E-05
157.5	0.379	0.528E-05

DIRECTION AVERAGE AVERAGE INVERSE
FROM SITE WIND SPEED WIND SPEED
M/SEC SEC/M

180.0	2.445	0.670
202.5	2.049	0.721
225.0	1.537	0.992
247.5	1.232	1.348
270.0	1.455	1.141
292.5	1.590	1.065
315.0	2.036	0.904
337.5	2.646	0.604
0.0	2.109	0.706
22.5	1.832	0.858
45.0	1.655	1.024
67.5	2.023	0.962
90.0	2.882	0.684
112.5	4.326	0.437
135.0	4.370	0.402
157.5	3.168	0.552