

JUL 05 1984

Docket No. 50-412

MEMORANDUM FOR: Frank J. Congel, Chief
 Radiological Assessment Branch, DSI

FROM: William P. Gammill, Chief
 Meteorology and Effluent Treatment Branch, DSI

SUBJECT: METEOROLOGICAL INPUT TO BEAVER VALLEY, UNIT 2, APPENDIX I
 EVALUATION

Enclosed are calculated relative concentration (X/Q) and relative deposition (D/Q) values at specified points of interest and as functions of direction out to a distance of 80 km from the Beaver Valley plant. Punched-card output was provided to T. Mo on 6/27/84. Also enclosed is a description of the meteorological data base and calculational methodology for inclusion in your development of Appendix D for the Draft Environmental Statement.

Receptor information was initially provided in the 3/26/84 memorandum from J. Nehemias to I. Spickler, and revised information was provided in the 5/10/84 memorandum from E. Branagan to I. Spickler. Release point characteristics were derived from the source term information included in my 3/20/84 memorandum to you, and through subsequent conversations with R. Fell. Adjustments to the straight-line atmospheric dispersion model for spatial and temporal variations in airflow were developed by the applicant, and presented in Tables 2.3-40 (for ground level releases) and 2.3-59 (for elevated releases) of the Final Safety Analysis Report (FSAR).

The enclosed X/Q and D/Q are somewhat different than those calculated by the applicant, primarily because of different assumptions about release point characteristics. The applicant assumed (from Table 2.3-42 of the FSAR) that all releases except those from the process vent were ground level with mixing in the turbulent wake of plant structures. Both the applicant and staff evaluated releases from the process vent as elevated. However, the staff assumed all releases from the containment vent to be a mixture of ground level and elevated, except for the transport directions (affected sectors) of north-northeast, northeast, east-southeast, and southeast. Dispersion in these transport directions is affected by airflow around the large natural draft cooling towers, and, for these transport directions,

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releases from the containment vent were assumed to be at ground level with mixing in the turbulent wake of plant structures. The staff also assumed releases from the turbine building to be at ground level.

This evaluation was performed by E. Markee and any questions should be directed to him at x27635.

original signed by:
William P. Gammill

William P. Gammill, Chief
Meteorology and Effluent Treatment Branch
Division of Systems Integration

Enclosure:
As stated

cc: w/o enclosure
Acting Director, DSI
D. Muller

cc: w/enclosure
E. Branagan
T. Mo
I. Spickler
E. Markee

DISTRIBUTION:
Docket File 50-412
METB Docket File
METB Reading File (w/o encl)
WPGammill

OFFICE	DSI:RP:METB	DSI:RP:METB	DSI:RP:METB				
SURNAME	EHMarkee:dj	ISpickler	WPGammill				
DATE	07/03/84	07/5/84	07/5/84				

BEAVER VALLEY POWER STATION, UNIT 2
METEOROLOGICAL INPUT TO APPENDIX D
OF DRAFT ENVIRONMENTAL STATEMENT

Annual average relative concentration (X/Q) and relative deposition (D/Q) values were calculated using the straight-line Gaussian atmospheric dispersion model described in Regulatory Guide 1.111, modified to reflect potential spatial and temporal variations in airflow using site-specific correction factors developed by the applicant. Releases through the process vent (at the top of the cooling tower) were assumed to be elevated, and releases from the turbine building were assumed to be at ground level with mixing in the turbulent wake of plant structures. Releases through the containment vent were assumed to be partially elevated, except for the transport directions (affected sectors) of north-northeast, northeast, east-southeast, and southeast. Dispersion in these transport directions is affected by the large natural draft cooling towers, and, for these transport directions, releases from the containment vent were assumed to be at ground level with mixing in the turbulent wake of plant structures. Intermittent releases through the containment vent were evaluated using the methodology contained in NUREG/CR-2919.

A 5-year period of record (January 1977-December 1981) of onsite meteorological data was used for this evaluation. For releases from the containment and turbine building vents, wind speed and direction data were based on measurements made at the 10.7m (35-ft) level, and atmospheric stability was defined by the vertical temperature difference between the 45.7m (150-ft) and 10.7m levels. For releases through the process vent at

DESIGNATED ORIGINAL
CERTIFIED BY alg 7/5/84

the top of the cooling tower, wind speed and direction data were based on measurements made at the 152m (499-ft) level, and atmospheric stability was defined by the vertical temperature difference between the 152m and 10.7m levels.

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

Table with columns: UMAX (M/S), N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, TOTAL. Rows show frequency distribution for wind speeds from 0.25 to 12.00 m/s.

ATMOSPHERIC STABILITY CLASS A

Table with columns: UMAX (M/S), N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, TOTAL. Rows show atmospheric stability class A distribution for wind speeds from 0.25 to 12.00 m/s.

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

Table with columns: UMAX (M/S), N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, TOTAL. Rows show frequency distribution for wind speeds from 0.25 to 12.00 m/s.

ATMOSPHERIC STABILITY CLASS C

Table with columns: UMAX (M/S), N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, TOTAL. Rows show atmospheric stability class C distribution for wind speeds from 0.25 to 12.00 m/s.

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

Table with columns: UMAX (M/S), N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, TOTAL. Rows show frequency distribution for wind speeds from 0.25 to 12.00 m/s.

ATMOSPHERIC STABILITY CLASS D

Table with columns: UMAX (M/S), N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, TOTAL. Rows show atmospheric stability class D distribution for wind speeds from 0.25 to 12.00 m/s.

4.25	0.429	0.444	0.117	0.190	0.136	0.055	0.037	0.007	0.176	1.001	1.544	1.017	1.015	1.014	1.234	0.021	0.736
5.25	0.052	0.015	0.035	0.017	0.017	0.000	0.010	0.000	0.037	0.553	1.775	2.734	2.070	0.054	0.491	0.009	0.519
10.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.231	0.015	0.270	0.012	0.007	0.000	1.229
12.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.94	1.34	1.97	1.46	1.04	0.08	0.07	0.03	1.01	2.07	9.51	6.15	4.79	3.08	3.12	1.76	16.67

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS E

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.000	0.000	0.023	0.036	0.000	0.057	0.037	0.021	0.008	0.006	0.002	0.002	0.003	0.002	0.003	0.003	0.290
0.50	0.037	0.057	0.149	0.233	0.302	0.367	0.238	0.134	0.052	0.040	0.010	0.012	0.020	0.015	0.022	0.022	1.700
0.75	0.074	0.104	0.273	0.342	0.506	0.374	0.394	0.243	0.169	0.047	0.047	0.020	0.035	0.032	0.032	0.050	2.741
1.00	0.126	0.200	0.444	0.426	0.377	0.250	0.231	0.352	0.394	0.188	0.077	0.040	0.092	0.074	0.072	0.097	3.460
1.50	0.176	0.280	0.466	0.416	0.101	0.074	0.072	0.223	0.570	0.436	0.226	0.089	0.114	0.104	0.139	0.161	3.735
2.00	0.092	0.124	0.151	0.235	0.069	0.035	0.035	0.035	0.332	0.064	0.203	0.112	0.069	0.077	0.069	0.087	2.260
3.00	0.030	0.007	0.020	0.004	0.042	0.010	0.007	0.015	0.119	0.523	0.454	0.211	0.064	0.050	0.045	0.022	1.770
5.00	0.002	0.000	0.002	0.005	0.002	0.002	0.000	0.000	0.027	0.141	0.337	0.221	0.067	0.025	0.015	0.007	0.855
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.020	0.032	0.007	0.002	0.000	0.000	0.067
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.54	0.79	1.53	1.70	1.62	1.10	1.01	1.02	1.60	1.85	1.05	0.74	0.47	0.39	0.40	0.45	16.90

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS F

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.002	0.005	0.000	0.014	0.009	0.131	0.089	0.024	0.006	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.359
0.50	0.020	0.037	0.062	0.156	0.503	1.040	0.711	0.196	0.050	0.022	0.010	0.005	0.002	0.002	0.000	0.005	2.000
0.75	0.027	0.050	0.077	0.245	0.505	0.964	1.264	0.397	0.092	0.037	0.022	0.012	0.014	0.005	0.012	0.027	3.027
1.00	0.027	0.045	0.092	0.231	0.374	0.394	0.558	0.600	0.201	0.072	0.025	0.012	0.007	0.005	0.010	0.042	2.670
1.50	0.027	0.059	0.089	0.171	0.067	0.045	0.004	0.250	0.488	0.191	0.047	0.022	0.015	0.002	0.002	0.025	1.560
2.00	0.015	0.022	0.015	0.010	0.007	0.005	0.005	0.015	0.312	0.156	0.045	0.010	0.005	0.005	0.000	0.000	0.627
3.00	0.005	0.002	0.000	0.000	0.000	0.000	0.002	0.002	0.062	0.094	0.047	0.012	0.000	0.000	0.007	0.000	0.235
5.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.020	0.005	0.002	0.002	0.000	0.000	0.042
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.12	0.22	0.34	0.83	1.60	2.59	2.72	1.40	1.21	0.59	0.22	0.09	0.04	0.02	0.03	0.08	12.27

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS G

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.001	0.001	0.000	0.000	0.009	0.076	0.104	0.016	0.004	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.265
0.50	0.007	0.012	0.042	0.004	0.242	0.972	1.076	0.161	0.040	0.007	0.002	0.000	0.005	0.002	0.001	0.015	2.677
0.75	0.005	0.042	0.064	0.124	0.379	1.301	2.005	0.461	0.047	0.012	0.010	0.002	0.005	0.010	0.002	0.010	4.675
1.00	0.007	0.010	0.004	0.104	0.205	0.565	1.457	0.815	0.146	0.035	0.010	0.007	0.002	0.000	0.005	0.002	3.592
1.50	0.002	0.035	0.042	0.047	0.044	0.072	0.188	0.513	0.290	0.057	0.010	0.002	0.000	0.000	0.005	0.000	1.390
2.00	0.000	0.015	0.042	0.022	0.000	0.042	0.000	0.030	0.188	0.042	0.005	0.007	0.002	0.000	0.000	0.000	0.322
3.00	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.059	0.020	0.002	0.000	0.000	0.000	0.000	0.000	0.070
5.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.02	0.12	0.22	0.44	1.00	3.09	4.04	2.00	0.77	0.15	0.04	0.02	0.02	0.02	0.02	0.03	12.93

TOTAL HOURS CONSIDERED ARE 41343

100% Accuracy

WIND MEASURED AT 10.7 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION FREQUENCIES	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
	0.0	3.3	4.7	5.7	6.1	7.7	9.4	5.3	5.5	6.5	0.4	10.2	0.1	5.3	3.0	3.0	100.7

OVERALL WIND SPEED FREQUENCY

BEAVER VALLEY, PA 1977 THRU 1981 : JFU INFL CALM, 25M/S HT=14.7M DELTA T=1-L

TURBINE BUILDING VENTS CONTINUOUS GROUND LEVEL RELEASE

8.0M DAY DECAY, DEPLETED
CORRECTED USING SITE-SPECIFIC FACTORS

SECTION	ANNUAL AVERAGE CHT/0 (REL/METER CUMED)				DISTANCE IN MILES FROM THE SITE							
	0.25M	0.5M	0.75M	1.0M	1.5M	2.0M	2.5M	3.0M	3.5M	4.0M	4.5M	
S	9.201E-26	2.964E-26	1.706E-26	4.370E-27	4.388E-27	2.566E-27	1.788E-27	1.331E-27	9.454E-28	7.590E-28	6.274E-28	
SSW	1.133E-25	3.714E-26	1.416E-26	1.204E-26	5.738E-27	3.390E-27	2.381E-27	1.744E-27	1.398E-27	1.132E-27	8.431E-28	
SW	1.767E-25	5.451E-26	3.430E-26	1.915E-26	1.149E-26	7.540E-27	4.836E-27	3.366E-27	2.640E-27	2.134E-27	1.609E-27	
WSW	3.395E-25	1.111E-25	5.849E-26	3.710E-26	1.976E-26	1.266E-26	8.966E-27	6.767E-27	5.141E-27	4.052E-27	3.244E-27	
W	7.484E-25	2.504E-25	1.319E-25	8.555E-26	4.648E-26	3.016E-26	1.773E-26	1.149E-26	9.117E-27	7.464E-27	6.249E-27	
WNW	1.704E-24	5.156E-25	2.699E-25	1.780E-25	9.620E-26	6.212E-26	4.375E-26	3.284E-26	2.623E-26	2.157E-26	1.624E-26	
NW	1.490E-24	5.625E-25	2.421E-25	1.939E-25	1.084E-25	7.165E-26	5.065E-26	3.814E-26	3.053E-26	2.517E-26	1.894E-26	
NNW	5.192E-25	1.583E-25	8.265E-26	5.435E-26	3.005E-26	1.973E-26	1.375E-26	1.023E-26	7.869E-27	6.268E-27	5.073E-27	
N	2.194E-25	7.040E-26	3.686E-26	2.374E-26	1.280E-26	8.268E-27	5.642E-27	4.131E-27	3.123E-27	2.451E-27	1.959E-27	
NNE	1.452E-25	4.810E-26	2.540E-26	1.578E-26	7.574E-27	4.509E-27	3.172E-27	2.581E-27	1.869E-27	1.515E-27	1.259E-27	
NE	1.040E-25	3.383E-26	1.722E-26	1.071E-26	6.042E-27	4.033E-27	2.808E-27	2.089E-27	1.499E-27	1.124E-27	8.869E-28	
ENE	1.457E-25	3.363E-26	1.686E-26	1.040E-26	5.762E-27	3.795E-27	2.717E-27	2.069E-27	1.603E-27	1.285E-27	9.477E-28	
E	9.989E-26	3.177E-26	1.592E-26	9.825E-27	4.585E-27	2.673E-27	1.850E-27	1.369E-27	1.014E-27	7.810E-28	6.431E-28	
ESE	6.426E-26	2.185E-26	1.097E-26	6.777E-27	3.461E-27	2.151E-27	1.488E-27	1.102E-27	8.155E-28	6.283E-28	4.919E-28	
SE	7.322E-26	2.364E-26	1.189E-26	7.358E-27	3.944E-27	2.536E-27	1.756E-27	1.304E-27	9.225E-28	6.852E-28	5.643E-28	
SSE	7.548E-26	2.414E-26	1.223E-26	7.623E-27	3.945E-27	2.476E-27	1.575E-27	1.089E-27	8.072E-28	6.228E-28	5.151E-28	

SECTION	ANNUAL AVERAGE CHT/0 (REL/METER CUMED)				DISTANCE IN MILES FROM THE SITE							
	5.0M	7.5M	10.0M	15.0M	20.0M	25.0M	30.0M	35.0M	40.0M	45.0M	50.0M	
S	5.294E-26	2.757E-26	1.726E-26	8.864E-27	5.495E-27	3.771E-27	2.760E-27	2.111E-27	1.668E-27	1.352E-27	1.117E-27	
SSW	7.227E-26	3.815E-26	2.411E-26	1.254E-26	7.828E-27	5.399E-27	3.965E-27	3.042E-27	2.409E-27	1.955E-27	1.618E-27	
SW	1.367E-25	7.229E-26	4.572E-26	2.378E-26	1.483E-26	1.022E-26	7.498E-27	5.745E-27	4.543E-27	3.682E-27	3.042E-27	
WSW	2.665E-25	1.098E-25	7.010E-26	3.693E-26	2.324E-26	1.612E-26	1.189E-26	8.151E-27	6.265E-27	5.066E-27	4.093E-27	
W	5.332E-25	2.261E-25	1.335E-25	7.120E-26	4.513E-26	3.144E-26	2.325E-26	1.792E-26	1.424E-26	1.158E-26	9.589E-27	
WNW	1.254E-25	5.286E-26	2.663E-26	1.440E-26	4.210E-26	6.459E-26	4.802E-26	3.716E-26	2.963E-26	2.416E-26	2.004E-26	
NW	1.474E-25	6.233E-26	3.157E-26	1.721E-26	1.108E-26	7.812E-26	5.837E-26	4.539E-26	3.635E-26	2.976E-26	2.481E-26	
NNW	4.197E-25	1.864E-25	1.165E-25	6.335E-26	4.078E-26	2.878E-26	2.154E-26	1.679E-26	1.347E-26	1.106E-26	9.245E-27	
N	1.594E-25	6.636E-26	3.571E-26	2.985E-26	1.904E-26	1.336E-26	9.957E-27	7.736E-27	6.197E-27	5.082E-27	4.240E-27	
NNE	1.507E-25	4.720E-26	2.496E-26	1.574E-26	9.869E-27	6.849E-27	5.068E-27	3.904E-27	3.109E-27	2.536E-27	2.109E-27	
NE	7.178E-26	3.401E-26	2.131E-26	1.098E-26	6.830E-27	4.704E-27	3.456E-27	2.654E-27	2.106E-27	1.713E-27	1.422E-27	
ENE	7.214E-26	2.854E-26	1.774E-26	8.496E-27	5.547E-27	3.796E-27	2.775E-27	2.123E-27	1.679E-27	1.362E-27	1.124E-27	
E	5.405E-26	2.528E-26	1.564E-26	7.478E-27	4.918E-27	3.363E-27	2.456E-27	1.877E-27	1.483E-27	1.202E-27	9.437E-28	
ESE	3.953E-26	2.234E-26	1.282E-26	6.414E-27	3.950E-27	2.694E-27	1.974E-27	1.504E-27	1.188E-27	9.614E-28	7.448E-28	
SE	4.743E-26	2.219E-26	1.377E-26	6.492E-27	4.303E-27	2.937E-27	2.142E-27	1.634E-27	1.288E-27	1.042E-27	8.600E-28	
SSE	4.347E-26	2.274E-26	1.425E-26	7.343E-27	4.563E-27	3.138E-27	2.300E-27	1.762E-27	1.394E-27	1.131E-27	9.352E-28	

VENT AND BUILDING PARAMETERS

RELEASE HEIGHT (METERS)	10.7	REP. WIND HEIGHT (METERS)	10.7
DIAMETER (METERS)	8.0	BUILDING HEIGHT (METERS)	33.0
EXIT VELOCITY (METERS)	10.0	FLAG, MIN, CRS, SEC, AREA (SQ. METERS)	1600.0
		HEAT EMISSION RATE (CAL/SEC)	0.0

ALL GROUND LEVEL RELEASES.

BEAVER VALLEY, PA 1977 THRU 1981 1 JFD INFL CALN=254/5 HTR=10.70 DELTA T=1-L

TURBINE BUILDING VENT CONTINUOUS GROUND LEVEL RELEASE
 2.2% DAY DECAY, UNDEPLETED
 CORRECTED USING SITE-SPECIFIC FACTORS

SECTION	ANNUAL AVERAGE CH/74 (SEC/METER CUBED)											
	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	
S	9.707E-06	5.236E-06	1.682E-06	1.064E-06	5.117E-07	3.059E-07	2.171E-07	1.603E-07	1.234E-07	9.640E-08	8.062E-08	
SSW	1.195E-05	4.052E-06	2.138E-06	1.369E-06	6.680E-07	4.032E-07	2.883E-07	2.195E-07	1.744E-07	1.430E-07	1.141E-07	
SW	1.463E-05	6.379E-06	3.577E-06	2.168E-06	1.289E-06	8.948E-07	5.841E-07	4.128E-07	3.282E-07	2.691E-07	2.140E-07	
SSW	3.574E-05	1.211E-05	6.344E-06	4.200E-06	2.295E-06	1.501E-06	1.082E-06	8.289E-07	6.582E-07	5.090E-07	4.125E-07	
W	8.405E-05	2.726E-05	1.467E-05	9.659E-06	5.577E-06	3.558E-06	2.126E-06	1.597E-06	1.122E-06	9.278E-07	7.846E-07	
WSW	1.744E-04	5.611E-05	3.000E-05	2.000E-05	1.112E-05	7.319E-06	5.237E-06	3.985E-06	3.220E-06	2.676E-06	2.033E-06	
W	2.000E-04	6.126E-05	3.251E-05	2.191E-05	1.256E-05	8.469E-06	6.087E-06	4.650E-06	3.770E-06	3.142E-06	2.590E-06	
WSW	5.474E-05	1.726E-05	9.216E-06	6.157E-06	3.474E-06	2.344E-06	1.662E-06	1.256E-06	4.799E-07	7.405E-07	6.467E-07	
W	2.315E-05	7.685E-06	4.117E-06	2.696E-06	1.493E-06	9.863E-07	6.859E-07	5.106E-07	3.917E-07	3.116E-07	2.510E-07	
WSW	1.532E-05	5.255E-06	2.795E-06	1.794E-06	8.852E-07	5.392E-07	3.868E-07	2.954E-07	2.354E-07	1.935E-07	1.629E-07	
W	1.948E-05	3.698E-06	1.927E-06	1.219E-06	7.076E-07	4.835E-07	3.435E-07	2.601E-07	1.896E-07	1.442E-07	1.154E-07	
WSW	1.116E-05	3.677E-06	1.888E-06	1.184E-06	7.52E-07	4.554E-07	3.328E-07	2.580E-07	2.032E-07	1.653E-07	1.336E-07	
W	1.454E-05	3.472E-06	1.782E-06	1.118E-06	5.367E-07	3.203E-07	2.261E-07	1.703E-07	1.281E-07	1.001E-07	8.351E-08	
WSW	7.206E-06	2.388E-06	1.228E-06	7.712E-07	4.051E-07	2.577E-07	1.819E-07	1.370E-07	1.030E-07	8.053E-08	6.588E-08	
W	7.728E-06	2.574E-06	1.338E-06	8.588E-07	4.012E-07	3.035E-07	2.143E-07	1.615E-07	1.163E-07	8.762E-08	7.308E-08	
WSW	7.964E-06	2.636E-06	1.367E-06	8.656E-07	4.603E-07	2.954E-07	1.915E-07	1.346E-07	1.012E-07	7.414E-08	6.625E-08	

SECTION	ANNUAL AVERAGE CH/74 (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	6.074E-08	3.724E-08	2.408E-08	1.629E-08	8.316E-09	5.860E-09	4.382E-09	3.414E-09	2.741E-09	2.252E-09	1.885E-09
SSW	9.333E-08	5.115E-08	3.331E-08	1.808E-08	1.163E-08	8.202E-09	6.132E-09	4.773E-09	3.826E-09	3.137E-09	2.619E-09
SW	1.257E-07	4.617E-08	6.253E-08	3.379E-08	2.163E-08	1.510E-08	1.129E-08	8.748E-09	6.980E-09	5.696E-09	4.733E-09
SSW	3.417E-07	1.457E-07	4.556E-08	5.224E-08	3.369E-08	2.378E-08	1.776E-08	1.381E-08	1.104E-08	4.034E-09	7.520E-09
W	6.753E-07	2.946E-07	1.777E-07	4.729E-08	6.255E-08	4.391E-08	3.260E-08	2.516E-08	1.997E-08	1.621E-08	1.339E-08
WSW	1.540E-06	6.856E-07	3.524E-07	1.950E-07	1.262E-07	8.892E-08	6.616E-08	5.112E-08	4.060E-08	3.295E-08	2.720E-08
W	1.876E-06	8.179E-07	4.242E-07	2.383E-07	1.561E-07	1.113E-07	8.364E-08	6.530E-08	5.235E-08	4.285E-08	3.566E-08
WSW	5.406E-07	2.497E-07	1.003E-07	9.078E-08	6.008E-08	4.328E-08	3.290E-08	2.595E-08	2.103E-08	1.740E-08	1.463E-08
W	2.064E-07	1.171E-07	7.019E-08	4.404E-08	2.914E-08	2.105E-08	1.607E-08	1.274E-08	1.039E-08	8.651E-09	7.324E-09
WSW	1.490E-07	6.454E-08	4.249E-08	2.352E-08	1.540E-08	1.105E-08	8.395E-09	6.635E-09	5.398E-09	4.490E-09	3.800E-09
W	9.453E-08	4.692E-08	3.058E-08	1.672E-08	1.089E-08	7.784E-09	5.904E-09	4.663E-09	3.794E-09	3.157E-09	2.675E-09
WSW	4.534E-08	3.953E-08	2.553E-08	1.581E-08	9.935E-09	6.364E-09	4.814E-09	3.796E-09	3.086E-09	2.567E-09	2.175E-09
W	7.104E-08	3.478E-08	2.203E-08	1.208E-08	7.784E-09	5.519E-09	4.156E-09	3.263E-09	2.641E-09	2.188E-09	1.846E-09
WSW	5.190E-08	2.797E-08	1.804E-08	4.706E-09	6.243E-09	4.418E-09	3.322E-09	2.603E-09	2.103E-09	1.734E-09	1.464E-09
W	6.216E-08	3.034E-08	1.956E-08	1.049E-08	6.727E-09	4.747E-09	3.558E-09	2.781E-09	2.240E-09	1.847E-09	1.552E-09
WSW	5.653E-08	3.074E-08	1.943E-08	1.078E-08	6.430E-09	4.843E-09	3.665E-09	2.860E-09	2.294E-09	1.890E-09	1.583E-09

VENT AND BUILDING PARAMETERS

RELEASE HEIGHT (METERS)	10.70	REF. WIND HEIGHT (METERS)	10.7
DIAMETER (METERS)	0.00	BUILDING HEIGHT (METERS)	33.0
EXIT VELOCITY (METERS)	0.00	LOG, MIN, CRS, SEC, AREA (SQ. METERS)	1600.0
		HEAT EMISSION RATE (CAL/SEC)	0.0

ALL GROUND LEVEL RELEASES.

BLAVER VALLEY, PA 1977 INNO 1981 1 JFM INFO CALN, 25M/S H=10.7M DELTA T=1-L

TURBULE BUILDING VENTS CONTINUOUS GROUND LEVEL RELEASE
2.261 DAY DECAY, UNDEPLETED

CHIZK (SFC/METER CURRNT) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.752E-06	5.029E-07	2.197E-07	1.209E-07	8.090E-08	3.839E-08	1.337E-08	5.923E-09	3.430E-09	2.261E-09
SSW	2.202E-06	7.062E-07	2.914E-07	1.753E-07	1.150E-07	5.259E-08	1.860E-08	8.288E-09	4.801E-09	3.149E-09
SW	3.507E-06	1.309E-06	5.984E-07	3.298E-07	2.164E-07	9.889E-08	3.477E-08	1.535E-08	8.802E-09	5.720E-09
WSW	6.716E-06	2.365E-06	1.092E-06	6.434E-07	4.148E-07	1.670E-07	5.362E-08	2.401E-08	1.388E-08	9.269E-09
W	1.500E-05	5.520E-06	2.216E-06	1.126E-06	7.865E-07	3.272E-07	9.972E-08	4.436E-08	2.531E-08	1.628E-08
WNW	3.139E-05	1.142E-05	5.291E-06	3.231E-06	2.059E-06	7.384E-07	1.994E-07	8.975E-08	5.141E-08	3.309E-08
NW	3.419E-05	1.202E-05	6.148E-06	3.782E-06	2.424E-06	8.782E-07	2.431E-07	1.122E-07	6.562E-08	4.300E-08
NNW	9.644E-06	3.574E-06	1.682E-06	9.866E-07	6.499E-07	2.706E-07	9.258E-08	4.361E-08	2.606E-08	1.745E-08
N	4.278E-06	1.535E-06	6.459E-07	3.951E-07	2.526E-07	1.198E-07	4.501E-08	2.122E-08	1.280E-08	8.675E-09
NNE	2.847E-06	9.333E-07	3.408E-07	2.366E-07	1.633E-07	7.143E-08	2.413E-08	1.115E-08	6.667E-09	4.503E-09
NE	2.006E-06	7.216E-07	3.475E-07	1.925E-07	1.162E-07	5.024E-08	1.721E-08	7.860E-09	4.687E-09	3.167E-09
E	1.473E-06	6.906E-07	3.356E-07	2.044E-07	1.255E-07	4.571E-08	1.425E-08	6.430E-09	3.816E-09	2.576E-09
ESE	1.862E-06	5.697E-07	2.284E-07	1.295E-07	8.381E-08	3.735E-08	1.247E-08	5.578E-09	3.282E-09	2.196E-09
E	1.283E-06	4.209E-07	1.842E-07	1.042E-07	6.440E-08	2.889E-08	1.002E-08	4.466E-09	2.618E-09	1.745E-09
SE	1.388E-06	4.746E-07	2.170E-07	1.183E-07	7.335E-08	3.264E-08	1.083E-08	4.799E-09	2.747E-09	1.854E-09
SSE	1.426E-06	4.771E-07	1.965E-07	1.024E-07	6.647E-08	3.167E-08	1.110E-08	4.945E-09	2.876E-09	1.897E-09

BEAVER VALLEY, PA 1977 THRU 1981 : JFU INFL CALM, 25M/S MIN, 7M DELTA T=1-L

TURBINE BUILDING VENTS CONTINUOUS GROUND LEVEL RELEASE

NO DAY DECAY, DEPLETED
CORRECTED USING SITE-SPECIFIC FACTORS

SECTION	ANNUAL AVERAGE CHT/0 (SEC/METER CUMED)				DISTANCE IN MILES FROM THE SITE							
	0.25M	0.5M	0.75M	1.0M	1.5M	2.0M	2.5M	3.0M	3.5M	4.0M	4.5M	
S	9.201E-06	2.964E-06	1.566E-06	4.370E-07	4.388E-07	2.566E-07	1.788E-07	1.351E-07	9.854E-08	7.596E-08	6.274E-08	
SSW	1.133E-05	3.714E-06	1.916E-06	1.208E-06	5.738E-07	3.390E-07	2.381E-07	1.784E-07	1.398E-07	1.132E-07	8.431E-08	
SW	1.767E-05	5.851E-06	3.038E-06	1.915E-06	1.109E-06	7.540E-07	4.836E-07	3.366E-07	2.640E-07	2.134E-07	1.689E-07	
WSW	3.395E-05	1.111E-05	5.844E-06	3.710E-06	1.976E-06	1.266E-06	8.966E-07	6.767E-07	5.141E-07	4.052E-07	3.248E-07	
W	7.684E-05	2.504E-05	1.319E-05	8.555E-06	4.648E-06	3.016E-06	1.773E-06	1.149E-06	9.117E-07	7.464E-07	6.249E-07	
WNW	1.704E-04	5.156E-05	2.699E-05	1.780E-05	9.620E-06	6.212E-06	4.375E-06	3.284E-06	2.623E-06	2.157E-06	1.624E-06	
W	1.840E-04	5.625E-05	2.921E-05	1.939E-05	1.084E-05	7.165E-06	5.065E-06	3.814E-06	3.053E-06	2.517E-06	1.894E-06	
WNW	5.192E-04	1.583E-04	8.263E-05	5.435E-05	3.005E-05	1.973E-05	1.375E-05	1.023E-05	7.869E-06	6.268E-06	5.073E-06	
W	2.194E-04	7.040E-05	3.686E-05	2.374E-05	1.280E-05	8.268E-06	5.642E-06	4.131E-06	3.123E-06	2.451E-06	1.954E-06	
WNE	1.452E-04	4.810E-05	2.500E-05	1.578E-05	7.574E-06	4.509E-06	3.172E-06	2.381E-06	1.869E-06	1.515E-06	1.259E-06	
NE	1.040E-04	3.383E-05	1.722E-05	1.071E-05	6.042E-06	4.033E-06	2.808E-06	2.089E-06	1.499E-06	1.124E-06	8.869E-07	
ENE	1.257E-04	3.363E-05	1.686E-05	1.040E-05	5.762E-06	3.793E-06	2.717E-06	2.069E-06	1.603E-06	1.285E-06	9.477E-07	
E	9.969E-05	3.177E-05	1.592E-05	9.825E-06	4.585E-06	2.673E-06	1.850E-06	1.369E-06	1.014E-06	7.810E-07	6.431E-07	
ESE	6.426E-05	2.185E-05	1.097E-05	6.777E-06	3.461E-06	2.151E-06	1.488E-06	1.102E-06	8.155E-07	6.283E-07	4.919E-07	
SE	7.322E-05	2.364E-05	1.169E-05	7.558E-06	3.944E-06	2.536E-06	1.756E-06	1.300E-06	9.225E-07	6.852E-07	5.643E-07	
SSE	7.548E-05	2.414E-05	1.223E-05	7.623E-06	3.945E-06	2.476E-06	1.573E-06	1.089E-06	8.072E-07	6.228E-07	5.151E-07	

SECTION	ANNUAL AVERAGE CHT/0 (SEC/METER CUMED)				DISTANCE IN MILES FROM THE SITE							
	5.0M	7.5M	10.0M	15.0M	20.0M	25.0M	30.0M	35.0M	40.0M	45.0M	50.0M	
S	5.244E-06	2.757E-06	1.726E-06	8.864E-07	5.495E-07	3.771E-07	2.760E-07	2.111E-07	1.668E-07	1.352E-07	1.117E-07	
SSW	7.227E-06	3.815E-06	2.411E-06	1.254E-06	7.828E-07	5.399E-07	3.965E-07	3.042E-07	2.409E-07	1.955E-07	1.618E-07	
SW	1.307E-05	7.224E-06	4.572E-06	2.378E-06	1.483E-06	1.022E-06	7.498E-07	5.745E-07	4.543E-07	3.682E-07	3.042E-07	
WSW	2.065E-05	1.098E-05	7.010E-06	3.693E-06	2.324E-06	1.612E-06	1.189E-06	9.151E-07	7.265E-07	5.906E-07	4.893E-07	
W	5.332E-05	2.261E-05	1.335E-05	7.120E-06	4.513E-06	3.144E-06	2.325E-06	1.792E-06	1.424E-06	1.158E-06	9.589E-07	
WNW	1.254E-05	5.286E-06	2.663E-06	1.440E-06	4.210E-06	6.459E-06	4.802E-06	3.716E-06	2.963E-06	2.416E-06	2.004E-06	
NW	1.474E-05	6.233E-06	3.157E-06	1.721E-06	1.108E-06	7.812E-06	5.837E-06	4.539E-06	3.635E-06	2.976E-06	2.481E-06	
WNW	4.197E-05	1.844E-05	1.165E-05	6.335E-06	4.078E-06	2.878E-06	2.154E-06	1.679E-06	1.347E-06	1.106E-06	4.245E-06	
N	1.594E-05	6.636E-06	3.571E-06	2.985E-06	1.904E-06	1.336E-06	9.957E-07	7.736E-07	6.197E-07	5.082E-07	4.244E-07	
WNE	1.067E-05	4.724E-06	2.496E-06	1.574E-06	9.869E-07	6.849E-07	5.060E-07	3.904E-07	3.109E-07	2.536E-07	2.109E-07	
NE	7.174E-06	3.401E-06	2.131E-06	1.098E-06	6.830E-07	4.704E-07	3.456E-07	2.654E-07	2.106E-07	1.715E-07	1.422E-07	
ENE	7.219E-06	2.854E-06	1.774E-06	8.496E-07	5.547E-07	3.796E-07	2.775E-07	2.123E-07	1.679E-07	1.362E-07	1.124E-07	
E	5.005E-06	2.528E-06	1.564E-06	7.474E-07	4.918E-07	3.363E-07	2.456E-07	1.877E-07	1.483E-07	1.202E-07	9.437E-08	
ESE	3.953E-06	2.034E-06	1.262E-06	6.414E-07	3.950E-07	2.694E-07	1.974E-07	1.504E-07	1.188E-07	9.614E-08	7.488E-08	
SE	4.743E-06	2.219E-06	1.377E-06	6.492E-07	4.303E-07	2.937E-07	2.142E-07	1.634E-07	1.288E-07	1.042E-07	8.080E-08	
SSE	4.347E-06	2.274E-06	1.425E-06	7.543E-07	4.563E-07	3.138E-07	2.300E-07	1.762E-07	1.394E-07	1.131E-07	4.352E-08	

VENT AND BUILDING PARAMETERS

RELEASE HEIGHT (METERS)	10.7	REP. WIND HEIGHT (METERS)	10.7
DIAMETER (METERS)	0.49	BUILDING HEIGHT (METERS)	53.0
EXIT VELOCITY (METERS)	0.00	4LOG ₁₀ MIN. CR3. SEC. AREA (SQ. METERS)	1600.0
		HEAT EMISSION RATE (CAL/SEC)	0.0

ALL GROUND LEVEL RELEASES.

HEAVEN VALLEY, PA 1977 TOWN 1981 1 JFO 1980 CALIB. 250/5 HT=14.71 DELTA T=1-L

TUNING BUILDING VENTS CONTINUOUS GROUND LEVEL RELEASE
K, 400 DAY DECAY, DEPLETED

CH177 (SEC/METER CURRENT) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.577E-06	4.005E-07	1.012E-07	4.980E-08	6.304E-08	2.862E-08	9.252E-09	3.826E-09	2.128E-09	1.359E-09
SSW	2.041E-06	6.104E-07	2.411E-07	1.407E-07	9.806E-08	3.949E-08	1.302E-08	5.473E-09	3.065E-09	1.765E-09
SW	3.161E-06	1.130E-06	4.469E-07	2.657E-07	1.703E-07	7.480E-08	2.468E-08	1.036E-08	5.788E-09	3.700E-09
WSW	6.059E-06	2.040E-06	9.071E-07	5.190E-07	3.270E-07	1.270E-07	3.822E-08	1.633E-08	9.215E-09	5.933E-09
W	1.376E-05	4.791E-06	1.855E-06	9.164E-07	6.268E-07	2.532E-07	7.346E-08	3.181E-08	1.804E-08	1.163E-08
WSW	2.836E-05	9.423E-06	4.429E-06	2.634E-06	1.647E-06	5.744E-07	1.481E-07	6.530E-08	3.739E-08	2.426E-08
WSW	3.085E-05	1.111E-05	5.125E-06	3.066E-06	1.924E-06	6.757E-07	1.767E-07	7.843E-08	4.565E-08	2.988E-08
WSW	8.608E-06	3.088E-06	1.344E-06	7.934E-07	5.103E-07	2.074E-07	6.514E-08	2.908E-08	1.608E-08	1.110E-08
N	3.848E-06	1.322E-06	5.738E-07	3.155E-07	1.965E-07	8.808E-08	3.079E-08	1.351E-08	7.708E-09	5.102E-09
NE	2.604E-06	8.035E-07	3.212E-07	1.880E-07	1.264E-07	5.276E-08	1.628E-08	6.939E-09	3.931E-09	2.548E-09
NE	1.801E-06	6.186E-07	2.847E-07	1.525E-07	8.945E-08	3.676E-08	1.143E-08	4.772E-09	2.675E-09	1.722E-09
ENE	1.771E-06	5.917E-07	2.745E-07	1.615E-07	9.640E-08	3.342E-08	9.398E-09	3.854E-09	2.140E-09	1.369E-09
E	1.073E-06	4.900E-07	1.677E-07	1.027E-07	6.459E-08	2.741E-08	8.332E-09	3.415E-09	1.893E-09	1.208E-09
ESE	1.153E-06	3.616E-07	1.310E-07	8.260E-08	4.965E-08	2.117E-08	6.699E-09	2.741E-09	1.517E-09	9.670E-10
SE	1.244E-06	4.077E-07	1.702E-07	9.401E-08	5.668E-08	2.406E-08	7.303E-09	2.983E-09	1.647E-09	1.048E-09
SSE	1.203E-06	4.114E-07	1.621E-07	8.175E-08	5.172E-08	2.356E-08	7.641E-09	3.183E-09	1.776E-09	1.136E-09

BEAVER VALLEY, PA 1577 INRU 1981 : 1FD INRU CALM=.25M/S HT=10.7M DELTA T=1-L

TOWER-BUILDING VENTIL CONTINUOUS GROUND LEVEL RELEASE
CONNECTED USING SITE-SPECIFIC FACTORS

DIRECTION FROM SITE	RELATIVE DEPOSITION PER UNIT AREA (M**2) AT FIXED POINTS BY DOWNWIND SECTIONS DISTANCES IN MILES										
	0.25	1.00	1.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	3.322E-08	1.123E-08	5.768E-09	3.541E-09	1.601E-09	9.061E-10	6.126E-10	4.439E-10	3.207E-10	2.418E-10	1.457E-10
SSW	2.402E-08	8.392E-09	4.509E-09	2.646E-09	1.196E-09	6.769E-10	4.577E-10	3.316E-10	2.522E-10	1.487E-10	1.529E-10
SW	3.013E-08	1.014E-08	5.232E-09	3.213E-09	1.766E-09	1.148E-09	7.479E-10	4.754E-10	3.619E-10	2.851E-10	2.195E-10
WSW	3.932E-08	1.604E-08	8.563E-09	5.258E-09	2.621E-09	1.594E-09	1.075E-09	7.789E-10	5.708E-10	4.355E-10	3.377E-10
W	7.028E-08	2.376E-08	1.224E-08	7.492E-09	3.735E-09	2.265E-09	1.258E-09	7.769E-10	5.468E-10	4.654E-10	3.764E-10
WNW	1.027E-07	3.473E-08	1.783E-08	1.095E-08	5.318E-09	3.166E-09	2.087E-09	1.401E-09	1.126E-09	8.64E-10	6.422E-10
NW	1.202E-07	4.063E-08	2.086E-08	1.281E-08	6.387E-09	3.873E-09	2.553E-09	1.811E-09	1.377E-09	1.085E-09	7.856E-10
NNW	4.947E-08	1.673E-08	8.544E-09	5.275E-09	2.630E-09	1.595E-09	1.041E-09	7.325E-10	5.368E-10	4.095E-10	3.184E-10
N	4.142E-08	1.401E-08	7.191E-09	4.416E-09	2.201E-09	1.335E-09	8.638E-10	6.038E-10	4.382E-10	3.316E-10	2.552E-10
NNE	5.257E-08	1.778E-08	9.127E-09	5.604E-09	2.553E-09	1.453E-09	9.821E-10	7.117E-10	5.411E-10	4.263E-10	3.451E-10
NE	6.215E-08	2.102E-08	1.079E-08	6.626E-09	3.615E-09	2.337E-09	1.580E-09	1.145E-09	8.016E-10	5.879E-10	4.546E-10
ENE	7.707E-08	2.606E-08	1.338E-08	8.217E-09	4.454E-09	2.867E-09	2.008E-09	1.498E-09	1.134E-09	8.473E-10	6.514E-10
E	6.574E-08	2.223E-08	1.141E-08	7.008E-09	3.143E-09	1.816E-09	1.228E-09	8.698E-10	6.458E-10	4.887E-10	3.456E-10
ESE	3.654E-08	1.235E-08	6.344E-09	3.895E-09	1.942E-09	1.178E-09	7.963E-10	5.770E-10	4.188E-10	3.168E-10	2.439E-10
SE	3.466E-08	1.172E-08	6.018E-09	3.696E-09	1.931E-09	1.211E-09	8.184E-10	5.930E-10	4.123E-10	3.006E-10	2.434E-10
SSE	2.864E-08	9.670E-09	4.965E-09	3.049E-09	1.520E-09	9.218E-10	5.665E-10	3.821E-10	2.761E-10	2.081E-10	1.685E-10

DIRECTION FROM SITE	DISTANCES IN MILES										
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	1.014E-10	7.934E-11	4.978E-11	2.516E-11	1.523E-11	1.021E-11	7.317E-12	5.494E-12	4.272E-12	3.412E-12	2.785E-12
SSW	1.210E-10	5.927E-11	3.719E-11	1.880E-11	1.138E-11	7.628E-12	5.466E-12	4.104E-12	3.191E-12	2.549E-12	2.081E-12
SW	1.736E-10	8.505E-11	5.337E-11	2.697E-11	1.633E-11	1.095E-11	7.843E-12	5.890E-12	4.579E-12	3.658E-12	2.986E-12
WSW	2.707E-10	1.021E-10	6.405E-11	3.238E-11	1.960E-11	1.314E-11	9.414E-12	7.069E-12	5.496E-12	4.291E-12	3.567E-12
W	3.117E-10	1.191E-10	6.846E-11	3.460E-11	2.094E-11	1.404E-11	1.006E-11	7.555E-12	5.874E-12	4.642E-12	3.830E-12
WNW	4.008E-10	1.792E-10	8.648E-11	4.396E-11	2.661E-11	1.784E-11	1.278E-11	9.599E-12	7.464E-12	5.462E-12	4.066E-12
NW	5.882E-10	2.192E-10	1.464E-10	5.378E-11	3.255E-11	2.182E-11	1.564E-11	1.174E-11	9.130E-12	7.243E-12	5.953E-12
NNW	2.547E-10	1.005E-10	6.024E-11	3.045E-11	1.843E-11	1.236E-11	8.854E-12	6.648E-12	5.169E-12	4.129E-12	3.370E-12
N	2.019E-10	9.892E-11	6.207E-11	3.137E-11	1.894E-11	1.273E-11	9.123E-12	6.850E-12	5.326E-12	4.255E-12	3.473E-12
NNE	2.855E-10	1.166E-10	7.315E-11	3.697E-11	2.238E-11	1.500E-11	1.075E-11	8.073E-12	6.277E-12	5.014E-12	4.093E-12
NE	3.804E-10	1.608E-10	1.009E-10	5.104E-11	3.087E-11	2.064E-11	1.483E-11	1.113E-11	8.657E-12	6.416E-12	5.045E-12
ENE	4.902E-10	1.841E-10	1.155E-10	5.838E-11	3.533E-11	2.369E-11	1.698E-11	1.275E-11	9.911E-12	7.417E-12	6.462E-12
E	3.272E-10	1.458E-10	9.147E-11	4.624E-11	2.798E-11	1.876E-11	1.344E-11	1.014E-11	7.849E-12	6.276E-12	5.118E-12
ESE	1.924E-10	9.453E-11	5.931E-11	2.998E-11	1.815E-11	1.217E-11	8.718E-12	6.546E-12	5.096E-12	4.066E-12	3.319E-12
SE	2.013E-10	8.969E-11	5.627E-11	2.844E-11	1.720E-11	1.154E-11	8.271E-12	6.210E-12	4.824E-12	3.857E-12	3.148E-12
SSE	1.194E-10	6.834E-11	4.285E-11	2.166E-11	1.311E-11	8.790E-12	6.299E-12	4.730E-12	3.677E-12	2.437E-12	2.398E-12

DEAVER VALLEY, PA 1977 THRU 1981 1 JFH INFL CALIB, 25M/S HTR10, 7M DELTA T=1-L

TURBINE BUILDING VE FTI CONTINUOUS GROUND LEVEL RELEASE

***** RELATIVE DEPOSITION PER UNIT AREA (GRAMS) BY DOWNWIND SECTIONS *****

SEGMENT BOUNDARIES IN MILES

DIRECTION FROM SITE	0-1	1-2	2-3	3-4	4-5	5-14	10-20	20-30	30-40	40-50
S	5.445E-09	1.723E-09	6.234E-10	3.250E-10	1.960E-10	8.455E-11	2.622E-11	1.039E-11	5.549E-12	3.435E-12
SSW	4.477E-09	1.288E-09	4.657E-10	2.545E-10	1.506E-10	6.316E-11	1.459E-11	7.763E-12	4.146E-12	2.564E-12
SW	5.430E-09	1.813E-09	7.324E-10	3.652E-10	2.219E-10	9.064E-11	2.811E-11	1.114E-11	5.449E-12	3.682E-12
WSW	8.097E-09	2.749E-09	1.044E-09	5.787E-10	3.423E-10	1.227E-10	3.574E-11	1.337E-11	7.140E-12	4.417E-12
W	1.260E-08	3.417E-09	1.334E-09	5.962E-10	3.784E-10	1.394E-10	3.605E-11	1.429E-11	7.631E-12	4.723E-12
WNW	7.853E-08	5.613E-09	2.132E-09	1.136E-09	6.549E-10	2.052E-10	4.581E-11	1.816E-11	4.696E-12	6.001E-12
NW	2.160E-08	6.697E-09	2.608E-09	1.394E-09	8.012E-10	2.511E-10	5.604E-11	2.221E-11	1.186E-11	7.341E-12
NNW	8.425E-09	2.757E-09	1.065E-09	5.442E-10	3.219E-10	1.169E-10	3.173E-11	1.257E-11	6.715E-12	4.156E-12
N	7.472E-09	2.309E-09	8.855E-10	4.449E-10	2.581E-10	1.054E-10	3.269E-11	1.296E-11	6.919E-12	4.282E-12
NNE	9.444E-09	2.742E-09	9.944E-10	5.461E-10	3.471E-10	1.348E-10	3.853E-11	1.527E-11	8.154E-12	5.047E-12
NE	1.121E-08	3.716E-09	1.608E-09	8.183E-10	4.594E-10	1.786E-10	5.314E-11	2.106E-11	1.125E-11	6.961E-12
ENE	1.390E-08	4.585E-09	2.033E-09	1.150E-09	6.637E-10	2.212E-10	6.083E-11	2.411E-11	1.287E-11	7.969E-12
E	1.186E-08	3.429E-09	1.254E-09	6.557E-10	3.978E-10	1.620E-10	4.818E-11	1.909E-11	1.020E-11	6.311E-12
ESE	6.591E-09	2.036E-09	8.103E-10	4.251E-10	2.466E-10	1.007E-10	3.124E-11	1.238E-11	6.612E-12	4.092E-12
SE	6.253E-09	2.003E-09	8.320E-10	4.214E-10	2.447E-10	9.964E-11	2.964E-11	1.175E-11	6.273E-12	3.883E-12
SSE	5.159E-09	1.544E-09	5.882E-10	2.805E-10	1.694E-10	7.278E-11	2.257E-11	8.945E-12	4.777E-12	2.757E-12

VENT AND BUILDING PARAMETERS
 RELEASE HEIGHT (METERS) 10.7
 DIAMETER (METERS) 0.04
 EXIT VELOCITY (METERS) 0.00

REP. WIND HEIGHT (METERS) 10.7
 BUILDING HEIGHT (METERS) 33.0
 BLDG. MIN. CHS. SEC. AREA (SQ. METERS) 1600.0
 HEAT EMISSION RATE (CAL/SEC) 0.0

ALL GROUND LEVEL RELEASES.

HEAVEN VALLEY, PA 1977 THRU 1981 : JFO INFO CALM= .25M/S HTR=10.7M DELTA T=1=L

TURBINE BUILDING VENTS CONTINUOUS GROUND LEVEL RELEASE
CORRECTED USING SITE-SPECIFIC FACTORS
SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE	DISTANCE		X/Q			D/D
			(MILES)	(METERS)	(SEC/CUB.METER) NO DECAY UNDEPLETED	(SEC/CUB.METER) 2.260 DAY DECAY UNDEPLETED	(SEC/CUB.METER) 8.000 DAY DECAY UNDEPLETED	
A	NRST PLNT BNDRY	S	0.49	790.	3.3E-06	3.3E-06	3.1E-06	1.2E-06
A	NRST PLNT BNDRY	SSA	0.62	1000.	2.9E-06	2.9E-06	2.6E-06	5.9E-09
A	NRST PLNT BNDRY	SW	0.61	1300.	3.0E-06	3.0E-06	2.7E-06	4.6E-09
A	NRST PLNT BNDRY	WSW	0.29	460.	2.9E-05	2.9E-05	2.7E-05	4.0E-08
A	NRST PLNT BNDRY	W	0.34	540.	5.1E-05	5.1E-05	4.8E-05	4.5E-08
A	NRST PLNT BNDRY	WNW	0.37	600.	9.0E-05	9.0E-05	8.4E-05	5.5E-08
A	NRST PLNT BNDRY	NW	0.29	470.	1.5E-04	1.5E-04	1.4E-04	9.5E-08
A	NRST PLNT BNDRY	NNW	0.29	460.	4.4E-05	4.3E-05	4.1E-05	4.0E-08
A	NRST PLNT BNDRY	N	0.30	480.	1.7E-05	1.7E-05	1.6E-05	3.2E-08
A	NRST PLNT BNDRY	NE	0.43	690.	6.7E-06	6.6E-06	6.1E-06	2.5E-08
A	NRST PLNT BNDRY	NNE	0.21	340.	1.4E-05	1.4E-05	1.4E-05	8.0E-08
A	NRST PLNT BNDRY	ENE	0.21	340.	1.4E-05	1.4E-05	1.4E-05	9.9E-08
A	NRST PLNT BNDRY	E	0.28	450.	8.9E-06	8.8E-06	8.3E-06	5.5E-08
A	NRST PLNT BNDRY	ESE	0.32	510.	5.0E-06	5.0E-06	4.7E-06	2.5E-08
A	NRST PLNT BNDRY	SE	0.37	600.	4.1E-06	4.1E-06	3.8E-06	1.9E-08
A	NRST PLNT BNDRY	SSE	0.41	660.	3.6E-06	3.6E-06	3.4E-06	1.3E-08
A	NRST RESIDENT	S	1.50	2100.	6.7E-07	6.6E-07	5.7E-07	2.1E-09
A	NRST RESIDENT	SSW	0.60	1100.	2.5E-06	2.5E-06	2.2E-06	5.0E-09
A	NRST RESIDENT	SW	1.30	2100.	1.6E-06	1.5E-06	1.3E-06	2.2E-09
A	NRST RESIDENT	WSW	1.37	2200.	2.7E-06	2.6E-06	2.3E-06	5.1E-09
A	NRST RESIDENT	W	2.17	3500.	3.0E-06	2.9E-06	2.5E-06	.8E-09
A	NRST RESIDENT	WNW	2.17	3500.	6.7E-06	6.5E-06	5.4E-06	2.7E-09
A	NRST RESIDENT	NW	0.81	1300.	3.0E-05	2.9E-05	2.6E-05	1.6E-08
A	NRST RESIDENT	NNW	0.62	1000.	1.2E-05	1.2E-05	1.1E-05	1.2E-08
A	NRST RESIDENT	N	1.49	2400.	1.5E-06	1.5E-06	1.3E-06	2.2E-09
A	NRST RESIDENT	NNE	1.50	2500.	8.4E-07	8.3E-07	7.1E-07	2.4E-09
A	NRST RESIDENT	NE	0.30	610.	5.7E-06	5.7E-06	5.3E-06	3.3E-08
A	NRST RESIDENT	ENE	0.30	610.	5.8E-06	5.8E-06	5.3E-06	4.1E-08
A	NRST RESIDENT	E	0.41	660.	4.8E-06	4.8E-06	4.4E-06	3.1E-08
A	NRST RESIDENT	ESE	0.93	1500.	8.7E-07	8.6E-07	7.6E-07	4.4E-09
A	NRST RESIDENT	SE	1.00	1700.	7.8E-07	7.7E-07	6.6E-07	3.4E-09
A	NRST RESIDENT	SSE	0.81	1300.	1.2E-06	1.2E-06	1.1E-06	4.4E-09
A	NRST VEG GRDN	S	1.80	3000.	3.5E-07	3.5E-07	2.9E-07	1.0E-09
A	NRST VEG GRDN	SSW	1.37	2200.	8.0E-07	7.9E-07	6.8E-07	1.4E-09
A	NRST VEG GRDN	SW	1.50	2100.	1.6E-06	1.5E-06	1.3E-06	2.2E-09
A	NRST VEG GRDN	WSW	1.37	2200.	2.7E-06	2.6E-06	2.3E-06	5.1E-09
A	NRST VEG GRDN	W	2.17	3500.	3.0E-06	2.9E-06	2.5E-06	1.8E-09
A	NRST VEG GRDN	WNW	2.17	3500.	6.7E-06	6.5E-06	5.4E-06	2.7E-09
A	NRST VEG GRDN	N	0.87	1400.	2.7E-05	2.7E-05	2.4E-05	1.6E-08
A	NRST VEG GRDN	NNW	0.87	1400.	7.6E-06	7.5E-06	6.7E-06	6.7E-09
A	NRST VEG GRDN	N	1.50	2500.	1.4E-06	1.4E-06	1.2E-06	2.1E-09
A	NRST VEG GRDN	NNE	1.62	2600.	7.9E-07	7.8E-07	6.6E-07	2.2E-09
A	NRST VEG GRDN	NE	0.39	620.	5.6E-06	5.6E-06	5.2E-06	3.2E-08
A	NRST VEG GRDN	ENE	0.49	1600.	1.2E-06	1.2E-06	1.0E-06	6.3E-09
A	NRST VEG GRDN	E	1.10	1900.	8.3E-07	8.3E-07	7.2E-07	3.1E-09
A	NRST VEG GRDN	ESE	0.99	1600.	7.8E-07	7.8E-07	6.8E-07	3.9E-09
A	NRST VEG GRDN	SE	1.00	1700.	7.8E-07	7.7E-07	6.8E-07	3.4E-09
A	NRST VEG GRDN	SSE	0.99	1600.	8.8E-07	8.7E-07	7.7E-07	5.1E-09
A	NRST MEAT ANML	S	1.37	2200.	6.1E-07	6.0E-07	5.2E-07	1.9E-09
A	NRST MEAT ANML	SSW	1.37	2200.	8.0E-07	7.9E-07	6.8E-07	1.4E-09

A	NRST HEAT ANML	SW	1.43	2300.	1.4E-06	1.4E-06	1.2E-06	1.4E-09
A	NRST HEAT ANML	WSW	1.43	2300.	2.5E-06	2.5E-06	2.1E-06	2.8E-09
A	NRST HEAT ANML	W	2.44	4000.	2.2E-06	2.2E-06	1.8E-06	1.3E-09
A	NRST HEAT ANML	WNW	2.17	3500.	6.7E-06	5.5E-06	5.4E-06	2.7E-09
A	NRST HEAT ANML	WN	2.86	4500.	5.4E-06	5.2E-06	4.3E-06	2.1E-09
A	NRST HEAT ANML	WNW	2.42	3900.	1.8E-06	1.7E-06	1.4E-06	1.1E-09
A	NRST HEAT ANML	N	2.55	4100.	6.8E-07	6.7E-07	5.5E-07	6.5E-10
A	NRST HEAT ANML	NNE	1.60	2700.	7.4E-07	7.3E-07	6.2E-07	2.1E-09
A	NRST HEAT ANML	NE	4.72	7600.	1.1E-07	1.1E-07	8.8E-08	4.1E-10
A	NRST HEAT ANML	E	2.61	4200.	2.1E-07	2.1E-07	1.7E-07	1.1E-09
A	NRST HEAT ANML	ESE	0.93	1500.	8.7E-07	8.6E-07	7.6E-07	4.4E-09
A	NRST HEAT ANML	SE	1.94	3200.	3.1E-07	3.1E-07	2.6E-07	1.2E-09
A	NRST HEAT ANML	SSE	1.06	1700.	8.0E-07	7.9E-07	7.0E-07	2.8E-09
A	NRST DAIRY COW	S	1.94	3200.	3.1E-07	3.1E-07	2.6E-07	4.2E-10
A	NRST DAIRY COW	SSW	1.94	3200.	4.2E-07	4.1E-07	3.4E-07	6.8E-10
A	NRST DAIRY COW	WSW	3.17	5100.	7.9E-07	7.6E-07	6.1E-07	7.8E-10
A	NRST DAIRY COW	W	3.11	5000.	1.4E-06	1.3E-06	1.1E-06	7.3E-10
A	NRST DAIRY COW	WNW	2.73	4400.	4.8E-06	4.6E-06	3.8E-06	1.8E-09
A	NRST DAIRY COW	NE	4.72	7600.	1.1E-07	1.1E-07	8.8E-08	4.1E-10
A	NRST DAIRY COW	E	2.35	7000.	9.0E-08	8.8E-08	6.8E-08	4.2E-10
A	NRST DAIRY COW	SE	3.46	5600.	1.2E-07	1.2E-07	9.3E-08	4.2E-10
A	NRST DAIRY COW	SSE	3.11	5000.	1.3E-07	1.3E-07	1.0E-07	3.6E-10
A	NRST DAIRY GOAT	SSW	3.42	5500.	1.9E-07	1.8E-07	1.5E-07	2.6E-10
A	NRST DAIRY GOAT	SW	1.86	3000.	1.0E-06	9.8E-07	8.3E-07	1.3E-09
A	NRST DAIRY GOAT	WNW	14.24	23000.	2.6E-07	2.1E-07	1.6E-07	4.8E-11
A	NRST DAIRY GOAT	W	6.84	11000.	1.1E-06	1.0E-06	7.9E-07	2.8E-10
A	NRST DAIRY GOAT	WNW	9.32	15000.	2.0E-07	1.8E-07	1.3E-07	6.8E-11
A	NRST DAIRY GOAT	N	2.86	4600.	5.7E-07	5.5E-07	4.5E-07	6.6E-10
A	NRST DAIRY GOAT	NNE	3.85	6200.	2.1E-07	2.0E-07	1.6E-07	4.6E-10
A	NRST DAIRY GOAT	NE	1.30	2100.	8.6E-07	8.5E-07	7.4E-07	4.5E-09
A	NRST DAIRY GOAT	ENE	4.16	6700.	1.5E-07	1.5E-07	1.2E-07	6.0E-10
A	NRST DAIRY GOAT	E	2.61	4200.	2.1E-07	2.1E-07	1.7E-07	1.1E-09
A	NRST DAIRY GOAT	ESE	1.74	2800.	3.2E-07	3.2E-07	2.7E-07	1.5E-09
A	NRST DAIRY GOAT	SE	3.46	5600.	1.2E-07	1.2E-07	4.3E-08	4.2E-10
A	NRST DAIRY GOAT	SSE	6.21	10000.	4.3E-08	4.1E-08	3.1E-08	4.4E-11

VENT AND BUILDING PARAMETERS:

RELEASE HEIGHT (METERS) 10.70
DIAMETER (METERS) 0.00
EXIT VELOCITY (METERS) 0.00

REF. WIND HEIGHT (METERS) 10.7
BUILDING HEIGHT (METERS) 33.0
BLDG. MIN. CRS. SEC. AREA (SQ. METERS) 1600.0
HEAT EMISSION RATE (CAL/SEC) 0.0

ALL GROUND LEVEL RELEASES.

VAX/VMS HVVLY
VAX/VMS HVVLY
VAX/VMS HVVLY

XUDEL 15-MAY-1984 14:42
XUDEL 15-MAY-1984 14:42
XUDEL 15-MAY-1984 14:42

[PRG: 15-MAY-1984 14:42
[PRG: 15-MAY-1984 14:42
[PRG: 15-MAY-1984 14:42

DISK2:[HVVLY]XUDEL.OUT;1
DISK2:[HVVLY]XUDEL.OUT;1
DISK2:[HVVLY]XUDEL.OUT;1

VAX/VMS
VAX/VMS
VAX/VMS

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HHH V V RRR V V L Y Y
H H V V R H V V L Y Y
H H V V R H V V L Y Y
HHH V V RRR V V L Y
H H V V R R V V L Y
H H V V R R V V L Y
HHH V R H V LLLL Y
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XX XX 000000 00000000 000000 EEEEEEEEL LL
XX XX 000000 00000000 000000 EEEEEEEEL LL
XX XX 00 00 00 00 00 00 EE LL
XX XX 00 00 00 00 00 00 EE LL
XX XX 00 00 00 00 00 00 EE LL
XX XX 00 00 00 00 00 00 EEEEEEE LL
XX XX 00 00 00 00 00 00 EEEEEEE LL
XX XX 00 00 00 00 00 00 EE LL
XX XX 00 00 00 00 00 00 EE LL
XX XX 00 00 00 00 00 00 EE LL
XX XX 00 00 00 00 00 00 EE LL
XX XX 0000 00 00000000 0000 00 EEEEEEEEL LLLLLLLLLL
XX XX 0000 00 00000000 0000 00 EEEEEEEEL LLLLLLLLLL
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2. Continuous Elevated Release From
Cooling Tower

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000000 00 00 TTTTTTTTTT 1111 11
000000 00 00 TTTTTTTTTT 1111 11
00 00 00 00 TT 1111 1111
00 00 00 00 TT 1111 1111
00 00 00 00 TT 11 11
00 00 00 00 TT 11 11
00 00 00 00 TT 11 11
00 00 00 00 TT 11 11
00 00 00 00 TT 11 11
00 00 00 00 TT 11 11
00 00 00 00 TT 11 11
000000 0000000000 TT 11 111111
000000 0000000000 TT 11 111111
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HHH V V RRR V V L Y Y
H H V V R H V V L Y Y
H H V V R H V V L Y Y
HHH V V RRR V V L Y
H H V V R R V V L Y
H H V V R R V V L Y
HHH V R H V LLLL Y
```

VAX/VMS HVVLY
VAX/VMS HVVLY
VAX/VMS HVVLY

XUDEL 15-MAY-1984 14:42
XUDEL 15-MAY-1984 14:42
XUDEL 15-MAY-1984 14:42

[PRG: 15-MAY-1984 14:42
[PRG: 15-MAY-1984 14:42
[PRG: 15-MAY-1984 14:42

DISK2:[HVVLY]XUDEL.OUT;1
DISK2:[HVVLY]XUDEL.OUT;1
DISK2:[HVVLY]XUDEL.OUT;1

VAX/VMS
VAX/VMS
VAX/VMS

13	30.00	10	2000.00	11	7500.00	13	2200.00	14	1400.00	15	5000.00	16	2000.00	
14	1	3500.00	2	5000.00	3	5000.00	4	5000.00	5	5000.00	6	7500.00	7	5000.00
15	16	5200.00												
16	17	5000.00	3	3200.00	4	25000.00	5	11000.00	6	15000.00	7	4000.00	8	6000.00
17	18	6700.00	13	4200.00	14	2000.00	15	5000.00	16	10000.00				
18	19	10.200	0.250	-152.0	0.0	0.0	152.0	0.00						
19	20													

COOLING TOWER (PROCESS VENT) CONTINUOUS ELEVATED RELEASE

3.75	0.365	0.282	0.370	0.437	0.432	0.461	0.500	0.272	0.302	0.307	0.558	0.531	0.347	0.307	0.397	0.415	6.070
5.00	1.380	1.470	0.458	0.717	0.493	0.493	0.400	0.478	0.777	1.150	1.920	1.830	1.702	1.420	1.805	1.540	17.537
10.00	0.540	0.214	0.256	0.357	0.372	0.494	0.578	0.355	0.644	1.770	0.347	3.440	5.421	3.090	1.627	0.737	24.720
12.00	0.000	0.000	0.019	0.003	0.000	0.013	0.033	0.000	0.011	0.070	0.226	0.523	0.762	0.327	0.028	0.000	2.027
TOTAL	2.63	1.19	1.50	1.71	2.10	1.75	1.57	1.53	1.99	3.55	7.39	7.25	8.59	5.35	4.12	2.98	55.27

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS E

U _{max} (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.002	0.011	0.006	0.004	0.001	0.003	0.004	0.002	0.005	0.004	0.000	0.002	0.004	0.002	0.005	0.001	0.005
0.50	0.008	0.003	0.020	0.013	0.005	0.010	0.013	0.008	0.018	0.013	0.000	0.008	0.013	0.008	0.010	0.005	0.011
0.75	0.020	0.030	0.070	0.018	0.015	0.030	0.005	0.028	0.030	0.020	0.010	0.025	0.028	0.010	0.013	0.018	0.055
1.00	0.055	0.035	0.033	0.053	0.073	0.073	0.050	0.058	0.058	0.073	0.085	0.080	0.083	0.063	0.025	0.048	0.945
1.50	0.116	0.118	0.126	0.128	0.146	0.113	0.108	0.128	0.121	0.075	0.151	0.148	0.264	0.138	0.111	0.050	2.042
2.00	0.068	0.103	0.199	0.173	0.163	0.126	0.108	0.141	0.146	0.146	0.229	0.269	0.241	0.131	0.096	0.070	2.419
3.00	0.153	0.206	0.322	0.372	0.342	0.337	0.269	0.292	0.352	0.282	0.483	0.432	0.422	0.229	0.093	0.128	4.714
5.00	0.269	0.131	0.220	0.458	0.465	0.400	0.503	0.430	0.619	0.691	0.850	0.749	0.817	0.349	0.256	0.241	7.452
10.00	0.186	0.060	0.055	0.005	0.003	0.231	0.349	0.256	0.513	1.011	1.302	0.546	0.397	0.146	0.113	0.148	5.474
12.00	0.000	0.000	0.003	0.000	0.003	0.000	0.020	0.000	0.000	0.018	0.033	0.000	0.000	0.000	0.005	0.000	0.006
TOTAL	0.88	0.73	1.01	1.31	1.31	1.32	1.43	1.34	1.87	2.33	3.15	2.26	2.28	1.48	0.73	0.71	23.73

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS F

U _{max} (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.007	0.008	0.002	0.004	0.008	0.009	0.003	0.003	0.008	0.003	0.008	0.003	0.008	0.003	0.007	0.006	0.021
0.50	0.018	0.020	0.005	0.010	0.020	0.023	0.008	0.008	0.020	0.008	0.020	0.008	0.020	0.020	0.018	0.015	0.226
0.75	0.020	0.015	0.030	0.014	0.035	0.015	0.035	0.010	0.013	0.023	0.018	0.023	0.020	0.025	0.023	0.018	0.332
1.00	0.043	0.023	0.053	0.044	0.055	0.028	0.020	0.055	0.060	0.040	0.060	0.058	0.083	0.038	0.048	0.048	0.752
1.50	0.063	0.073	0.101	0.136	0.133	0.063	0.085	0.088	0.085	0.101	0.181	0.171	0.191	0.073	0.108	0.063	1.715
2.00	0.085	0.088	0.123	0.158	0.158	0.091	0.080	0.116	0.101	0.143	0.241	0.206	0.214	0.143	0.103	0.070	2.102
3.00	0.131	0.116	0.241	0.347	0.236	0.201	0.158	0.196	0.224	0.191	0.324	0.249	0.226	0.196	0.101	0.078	3.216
5.00	0.106	0.083	0.156	0.231	0.131	0.176	0.209	0.236	0.317	0.342	0.359	0.156	0.244	0.101	0.088	0.073	2.987
10.00	0.038	0.010	0.010	0.014	0.030	0.060	0.131	0.078	0.191	0.327	0.284	0.043	0.055	0.013	0.028	0.033	1.340
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.51	0.42	0.72	0.96	0.81	0.67	0.73	0.79	1.02	1.18	1.48	0.92	1.04	0.60	0.52	0.40	12.77

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS G

U _{max} (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.002	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.010
0.50	0.005	0.000	0.000	0.000	0.005	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.023
0.75	0.005	0.000	0.013	0.013	0.008	0.005	0.008	0.008	0.005	0.005	0.003	0.000	0.003	0.003	0.000	0.000	0.073
1.00	0.000	0.003	0.008	0.008	0.008	0.008	0.008	0.008	0.010	0.005	0.010	0.003	0.000	0.005	0.010	0.008	0.076
1.50	0.000	0.008	0.008	0.014	0.018	0.008	0.015	0.010	0.013	0.013	0.015	0.010	0.008	0.000	0.013	0.010	0.179
2.00	0.003	0.008	0.029	0.014	0.020	0.023	0.018	0.030	0.033	0.013	0.013	0.013	0.003	0.008	0.020	0.013	0.251
3.00	0.008	0.008	0.023	0.043	0.025	0.013	0.035	0.030	0.063	0.035	0.050	0.033	0.010	0.020	0.043	0.013	0.410
5.00	0.000	0.008	0.008	0.005	0.013	0.008	0.030	0.060	0.088	0.123	0.055	0.050	0.023	0.000	0.005	0.020	0.475
10.00	0.000	0.003	0.008	0.008	0.008	0.008	0.030	0.028	0.023	0.103	0.038	0.003	0.008	0.000	0.008	0.023	0.251
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.03	0.05	0.08	0.10	0.11	0.07	0.15	0.17	0.23	0.30	0.18	0.11	0.05	0.04	0.05	0.05	1.77

TOTAL HOURS CONSIDERED ARE 39775

90.00% 1.00%

WIND MEASURED AT 152.0 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
FREQUENCIES	4.7	2.6	3.6	4.0	4.6	4.1	4.2	3.4	4.5	7.7	12.8	11.2	12.6	7.6	5.4	4.5	100.2

OVERALL WIND SPEED FREQUENCY

BEAVER VALLEY, PA 1977 THRU 1981 : JF1 INFL CAL# 25-75 HT=152.4' DELTA T=U-L

COOLING TOWER (PROCESS VENT) CONTINUOUS ELEVATED RELEASE
 NO DELAY, UNDEPLETED
 CORRECTED USING SITE-SPECIFIC FACTORS

SECTION	ANNUAL AVERAGE CH170 (SEC/METER CORRED)										
	0.25M	0.50M	0.75M	1.00M	1.50M	2.00M	2.50M	3.00M	3.50M	4.00M	4.50M
S	3.428E-04	4.321E-04	1.498E-08	1.297E-08	2.373E-08	3.782E-08	4.654E-08	5.144E-08	4.535E-08	4.027E-08	3.564E-08
SSW	1.728E-07	2.982E-07	4.195E-04	5.365E-04	1.024E-08	1.528E-08	1.916E-08	2.149E-08	2.109E-08	2.043E-08	2.345E-08
SW	2.729E-07	4.644E-07	5.465E-04	6.805E-04	1.115E-08	1.558E-08	1.918E-08	2.054E-08	2.381E-08	2.717E-08	3.318E-08
WSW	3.172E-07	5.488E-07	7.088E-04	1.153E-08	2.578E-08	4.274E-08	7.919E-08	9.036E-08	9.192E-08	9.942E-08	8.409E-08
W	2.597E-07	4.872E-07	5.779E-04	7.095E-04	1.126E-08	1.427E-08	1.751E-08	1.918E-08	2.000E-08	2.079E-08	2.177E-08
WNW	2.237E-07	4.126E-07	5.142E-04	5.005E-04	9.744E-09	1.493E-08	1.994E-08	2.244E-08	2.181E-08	2.069E-08	2.162E-08
NW	1.037E-07	3.470E-07	5.568E-04	7.411E-04	1.146E-08	1.488E-08	1.723E-08	1.869E-08	2.028E-08	2.219E-08	2.317E-08
WNW	6.012E-07	2.344E-07	3.958E-04	4.355E-04	8.600E-09	1.241E-08	1.629E-08	1.912E-08	2.015E-08	2.132E-08	2.324E-08
N	3.017E-07	4.764E-07	6.936E-04	8.291E-04	1.636E-08	3.229E-08	4.309E-08	4.452E-08	5.096E-08	5.528E-08	5.748E-08
NNE	1.128E-07	5.276E-07	8.041E-04	1.313E-08	3.115E-08	4.748E-08	5.835E-08	6.542E-08	6.590E-08	6.534E-08	7.186E-08
NE	1.416E-07	6.533E-07	1.151E-08	1.969E-08	4.680E-08	6.844E-08	8.547E-08	9.671E-08	1.057E-07	1.129E-07	1.133E-07
ENE	2.160E-07	6.274E-07	1.075E-08	1.643E-08	3.664E-08	5.196E-08	6.406E-08	7.253E-08	7.734E-08	7.821E-08	7.536E-08
E	1.444E-07	5.005E-07	1.454E-08	1.725E-08	3.993E-08	6.524E-08	7.587E-08	7.279E-08	7.365E-08	7.801E-08	8.215E-08
ESE	1.074E-07	3.115E-07	7.219E-04	1.133E-08	2.462E-08	3.715E-08	4.398E-08	5.125E-08	5.280E-08	5.276E-08	5.296E-08
SE	1.032E-07	3.226E-07	6.425E-04	9.106E-04	1.909E-08	2.738E-08	3.108E-08	3.205E-08	3.166E-08	3.078E-08	2.791E-08
SSE	1.007E-07	4.137E-07	7.070E-04	1.011E-08	3.205E-08	5.019E-08	5.813E-08	5.882E-08	5.145E-08	4.547E-08	4.041E-08

SECTION	ANNUAL AVERAGE CH170 (SEC/METER CORRED)										
	5.00M	7.50M	10.00M	15.00M	20.00M	25.00M	30.00M	35.00M	40.00M	45.00M	50.00M
S	3.142E-08	2.906E-08	2.196E-08	1.254E-08	8.452E-09	6.232E-09	4.864E-09	3.948E-09	3.298E-09	2.816E-09	2.448E-09
SSW	2.695E-08	2.645E-08	1.748E-08	1.030E-08	6.966E-09	5.155E-09	4.042E-09	3.297E-09	2.758E-09	2.397E-09	2.049E-09
SW	4.000E-08	3.591E-08	2.471E-08	1.414E-08	9.557E-09	7.062E-09	5.522E-09	4.490E-09	3.756E-09	3.210E-09	2.791E-09
WSW	7.492E-08	4.340E-08	2.894E-08	1.654E-08	1.117E-08	8.256E-09	6.460E-09	5.254E-09	4.397E-09	3.754E-09	3.269E-09
W	2.260E-08	2.491E-08	3.435E-08	1.748E-08	1.102E-08	8.745E-09	6.848E-09	5.574E-09	4.667E-09	3.993E-09	3.470E-09
WNW	2.235E-08	2.626E-08	2.873E-08	1.642E-08	1.106E-08	8.810E-09	5.322E-09	4.324E-09	3.615E-09	3.084E-09	2.688E-09
NW	2.197E-08	2.174E-08	1.438E-08	1.399E-08	9.174E-09	6.799E-09	5.330E-09	4.343E-09	3.640E-09	3.114E-09	2.713E-09
WNW	2.515E-08	3.002E-08	2.296E-08	1.319E-08	8.941E-09	6.637E-09	5.199E-09	4.233E-09	3.545E-09	3.034E-09	2.600E-09
N	5.870E-08	4.485E-08	3.045E-08	1.756E-08	1.190E-08	8.813E-09	6.906E-09	5.625E-09	4.713E-09	4.034E-09	3.511E-09
WNE	7.487E-08	5.351E-08	3.444E-08	1.962E-08	1.322E-08	8.482E-09	6.944E-09	5.645E-09	4.721E-09	4.035E-09	3.508E-09
NE	1.092E-07	7.112E-08	4.678E-08	2.750E-08	1.867E-08	1.252E-08	9.760E-09	7.916E-09	6.608E-09	5.638E-09	4.894E-09
ENE	7.253E-08	5.284E-08	4.111E-08	2.204E-08	1.418E-08	1.044E-08	8.093E-09	6.551E-09	5.458E-09	4.649E-09	4.029E-09
E	8.457E-08	6.194E-08	4.130E-08	2.343E-08	1.571E-08	1.154E-08	8.977E-09	7.267E-09	6.156E-09	5.156E-09	4.471E-09
ESE	4.061E-08	3.686E-08	2.772E-08	1.489E-08	9.444E-09	6.436E-09	5.398E-09	4.371E-09	3.644E-09	3.105E-09	2.692E-09
SE	2.544E-08	1.946E-08	1.822E-08	1.348E-08	4.236E-09	6.745E-09	5.295E-09	4.293E-09	3.582E-09	3.055E-09	2.651E-09
SSE	3.873E-08	2.847E-08	1.948E-08	1.091E-08	7.515E-09	5.524E-09	4.302E-09	3.486E-09	2.908E-09	2.474E-09	2.151E-09

VENT AND BUILDING PARAMETERS

RELEASE HEIGHT (METERS) 152.00
 DIAMETER (METERS) 0.25
 EXIT VELOCITY (METERS) 10.20

REF. WIND HEIGHT (METERS) 152.4
 BUILDING HEIGHT (METERS) 0.0
 HLOG, MIN, CRS, SEC, AREA (SQ. METERS) 0.0
 HEAT EMISSION RATE (CAL/SEC) 0.0

ALL ELEVATED RELEASES.

BEAVER VALLEY, PA 1977 THRU 1981 2 JFJ THRU CALM, 250/5 HT=152.4M DELTA THU=L

COMING TOGETHER (PROCESS VENT) CONTINUOUS ELEVATED RELEASE
NO DECAY, UNDEPLETED

CHIM (SPECTROMETER CURVED) FOR EACH SEGMENT

SEGMENT BOUNDARIES IN MILES FROM THE SITE

DIRECTION FROM SITE	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.127E-08	2.760E-08	4.617E-08	4.515E-08	3.558E-08	2.652E-08	1.291E-08	6.277E-09	3.962E-09	2.822E-09
SSW	4.432E-09	1.140E-08	1.476E-08	2.095E-08	2.385E-08	2.279E-08	1.052E-08	5.193E-09	3.304E-09	2.361E-09
SW	5.870E-09	1.215E-08	1.877E-08	2.415E-08	3.390E-08	3.180E-08	1.445E-08	7.111E-09	4.505E-09	3.216E-09
WSW	8.713E-09	3.015E-08	7.394E-08	9.433E-08	8.765E-08	4.444E-08	1.692E-08	8.314E-09	5.272E-09	3.767E-09
W	6.142E-09	1.167E-08	1.731E-08	2.097E-08	2.179E-08	2.682E-08	1.783E-08	8.806E-09	5.593E-09	4.001E-09
WNW	5.246E-09	1.122E-08	1.460E-08	2.156E-08	2.161E-08	2.649E-08	1.678E-08	7.348E-09	4.339E-09	3.095E-09
W	5.918E-09	1.205E-08	1.717E-08	2.055E-08	2.318E-08	2.119E-08	1.305E-08	6.846E-09	4.357E-09	3.122E-09
WNW	3.409E-09	9.354E-09	1.634E-08	2.030E-08	2.339E-08	2.580E-08	1.347E-08	6.674E-09	4.247E-09	3.039E-09
W	6.888E-09	2.165E-08	4.078E-08	5.077E-08	5.728E-08	4.153E-08	1.791E-08	8.872E-09	5.643E-09	4.042E-09
WNW	9.448E-09	3.440E-08	5.828E-08	6.557E-08	7.180E-08	5.022E-08	2.007E-08	9.265E-09	5.664E-09	4.043E-09
W	1.404E-08	5.040E-08	8.543E-08	1.059E-07	1.113E-07	6.855E-08	2.787E-08	1.306E-08	7.945E-09	5.650E-09
ENE	1.228E-08	3.097E-08	6.422E-08	7.630E-08	7.516E-08	5.200E-08	2.278E-08	1.049E-08	6.575E-09	4.659E-09
E	1.230E-08	4.616E-08	7.101E-08	7.507E-08	8.183E-08	5.780E-08	2.397E-08	1.163E-08	7.294E-09	5.170E-09
ESE	8.136E-09	5.723E-08	4.507E-08	5.234E-08	5.166E-08	3.430E-08	1.439E-08	6.990E-09	4.388E-09	3.112E-09
SE	6.772E-09	2.050E-08	3.048E-08	3.143E-08	2.786E-08	2.025E-08	1.272E-08	6.846E-09	4.309E-09	3.062E-09
SSE	7.768E-09	3.524E-08	5.629E-08	5.128E-08	4.055E-08	2.613E-08	1.122E-08	5.566E-09	3.499E-09	2.485E-09

AVERAGE EFFECTIVE STACK HEIGHT IN METERS FOR EACH SEGMENT

DIRECTION FROM SITE	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.424E+02	1.278E+02	1.036E+02	8.992E+01	7.607E+01	2.936E+01	1.919E+00	6.147E-02	9.436E-04	0.000E+00
SSW	1.418E+02	1.294E+02	1.162E+02	1.029E+02	8.768E+01	3.251E+01	8.115E+00	6.099E+00	1.383E+00	2.424E-02
SW	1.427E+02	1.284E+02	1.147E+02	1.013E+02	8.359E+01	3.002E+01	2.189E+00	1.319E-01	1.910E-02	1.910E-02
WSW	1.241E+02	1.031E+02	6.403E+01	3.784E+01	1.311E+01	6.758E-01	8.113E-03	6.838E-03	6.117E-03	6.046E-03
W	1.459E+02	1.345E+02	1.246E+02	1.153E+02	1.032E+02	4.537E+01	1.022E+00	1.145E-03	1.145E-03	1.145E-03
WNW	1.471E+02	1.366E+02	1.226E+02	1.116E+02	1.030E+02	4.426E+01	6.929E-01	0.000E+00	0.000E+00	0.000E+00
W	1.432E+02	1.314E+02	1.246E+02	1.056E+02	8.903E+01	5.842E+01	1.185E+01	5.190E-01	5.194E-01	5.190E-01
WNW	1.407E+02	1.297E+02	1.136E+02	9.896E+01	8.203E+01	2.857E+01	4.921E+00	1.469E+00	5.460E-01	5.460E-01
W	1.421E+02	1.217E+02	9.075E+01	6.663E+01	4.686E+01	1.432E+01	2.202E+00	5.382E-01	3.441E-01	5.147E-02
WNW	1.309E+02	1.121E+02	9.022E+01	6.806E+01	4.605E+01	7.956E+00	2.786E-03	2.487E-03	2.137E-03	5.126E-04
W	1.347E+02	1.160E+02	9.433E+01	7.162E+01	4.929E+01	2.412E+01	7.100E+00	5.049E-03	1.218E-04	0.000E+00
ENE	1.343E+02	1.223E+02	1.052E+02	8.771E+01	7.344E+01	3.270E+01	1.232E+00	6.982E-04	1.243E-04	0.000E+00
E	1.393E+02	1.191E+02	9.540E+01	7.718E+01	5.472E+01	1.542E+01	2.206E+00	4.407E-02	4.170E-03	1.067E-03
ESE	1.406E+02	1.241E+02	1.060E+02	7.927E+01	5.395E+01	1.744E+01	2.135E+00	1.439E-01	5.351E-02	4.551E-04
SE	1.429E+02	1.324E+02	1.213E+02	1.090E+02	9.537E+01	6.727E+01	1.250E+01	1.294E-02	2.124E-03	0.840E-04
SSE	1.400E+02	1.150E+02	9.005E+01	7.199E+01	5.583E+01	2.270E+01	7.863E+00	3.418E-03	0.000E+00	0.000E+00

BEAVER VALLEY, PA 1977 THRU 1981 1 JFH (NEO CALM, 25M/S MIN 152.4M DELTA T=0-L

COOLING TOWER (PROCESS VENT): CONTINUOUS ELEVATED RELEASE
 2.26M HAY DECAY, UNCOMPLETED
 CORRECTED USING SITE-SPECIFIC FACTORS

SECTION	DISTANCE IN MILES FROM THE SITE										
	0.25M	0.50M	0.75M	1.00M	1.50M	2.00M	2.50M	3.00M	3.50M	4.00M	4.50M
S	3.826E-09	8.314E-09	1.097E-08	1.294E-08	2.364E-08	3.761E-08	4.619E-08	5.092E-08	4.476E-08	3.959E-08	3.487E-08
SSW	1.227E-09	2.479E-09	4.144E-09	5.353E-09	1.014E-08	1.517E-08	1.897E-08	2.123E-08	2.076E-08	2.005E-08	2.291E-08
SW	2.727E-09	4.594E-09	5.954E-09	6.784E-09	1.109E-08	1.547E-08	1.899E-08	2.027E-08	2.342E-08	2.643E-08	3.233E-08
WSW	5.171E-09	5.476E-09	7.078E-09	1.150E-08	2.566E-08	4.241E-08	7.027E-08	8.900E-08	9.023E-08	4.729E-08	8.686E-08
W	2.596E-09	4.867E-09	5.774E-09	7.088E-09	1.122E-08	1.419E-08	1.738E-08	1.898E-08	1.975E-08	2.044E-08	2.139E-08
WNW	2.236E-09	4.122E-09	5.044E-09	5.491E-09	9.705E-09	1.484E-08	1.976E-08	2.219E-08	2.150E-08	2.034E-08	2.119E-08
NW	1.936E-09	3.467E-09	5.552E-09	7.395E-09	1.142E-08	1.471E-08	1.708E-08	1.847E-08	1.994E-08	2.184E-08	2.269E-08
NNW	6.411E-10	2.342E-09	3.454E-09	4.347E-09	8.567E-09	1.234E-08	1.616E-08	1.891E-08	1.988E-08	2.048E-08	2.282E-08
N	3.410E-09	4.756E-09	6.426E-09	8.274E-09	1.630E-08	3.207E-08	4.265E-08	4.390E-08	5.005E-08	5.405E-08	5.597E-08
NNE	1.427E-09	5.272E-09	8.032E-09	1.311E-08	3.104E-08	4.724E-08	5.791E-08	6.476E-08	6.506E-08	6.437E-08	7.054E-08
NE	1.916E-09	6.527E-09	1.149E-08	1.466E-08	4.668E-08	6.817E-08	8.501E-08	9.602E-08	1.047E-07	1.115E-07	1.115E-07
ENE	2.164E-09	6.269E-09	1.073E-08	1.649E-08	3.650E-08	5.174E-08	6.369E-08	7.198E-08	7.659E-08	7.728E-08	7.439E-08
E	1.404E-09	5.001E-09	1.455E-08	1.721E-08	3.983E-08	6.501E-08	7.541E-08	7.218E-08	7.285E-08	7.496E-08	8.079E-08
ESE	1.473E-09	3.113E-09	7.211E-09	1.132E-08	2.455E-08	3.701E-08	4.374E-08	5.087E-08	5.230E-08	5.205E-08	5.206E-08
SE	1.431E-09	3.223E-09	6.017E-09	9.094E-09	1.903E-08	2.726E-08	3.089E-08	3.178E-08	3.131E-08	3.035E-08	2.742E-08
SSE	1.007E-09	4.133E-09	7.064E-09	1.009E-08	3.194E-08	4.991E-08	5.767E-08	5.818E-08	5.072E-08	4.465E-08	3.949E-08

SECTION	DISTANCE IN MILES FROM THE SITE										
	5.00M	7.50M	10.00M	15.00M	20.00M	25.00M	30.00M	35.00M	40.00M	45.00M	50.00M
S	3.104E-08	2.755E-08	2.429E-08	1.111E-08	7.214E-09	5.136E-09	3.879E-09	3.052E-09	2.474E-09	2.053E-09	1.735E-09
SSW	2.419E-08	2.496E-08	1.659E-08	9.153E-09	5.976E-09	4.277E-09	3.247E-09	2.568E-09	2.087E-09	1.734E-09	1.467E-09
SW	3.073E-08	3.437E-08	2.529E-08	1.297E-08	8.531E-09	6.142E-09	4.684E-09	3.717E-09	3.036E-09	2.536E-09	2.155E-09
WSW	7.476E-08	4.158E-08	2.740E-08	1.523E-08	1.003E-08	7.239E-09	5.535E-09	4.402E-09	3.603E-09	3.018E-09	2.571E-09
W	2.214E-08	2.391E-08	2.823E-08	1.570E-08	1.027E-08	7.369E-09	5.603E-09	4.434E-09	3.614E-09	3.012E-09	2.555E-09
WNW	2.142E-08	2.505E-08	2.664E-08	1.473E-08	9.610E-09	5.741E-09	4.360E-09	3.448E-09	2.809E-09	2.341E-09	1.986E-09
NW	2.344E-08	2.087E-08	1.827E-08	1.267E-08	8.063E-09	5.809E-09	4.433E-09	3.522E-09	2.880E-09	2.404E-09	2.050E-09
NNW	2.460E-08	2.892E-08	2.185E-08	1.226E-08	8.124E-09	5.900E-09	4.526E-09	3.611E-09	2.965E-09	2.484E-09	2.125E-09
N	5.493E-08	4.274E-08	2.857E-08	1.600E-08	1.055E-08	7.618E-09	5.826E-09	4.637E-09	3.800E-09	3.184E-09	2.715E-09
NNE	7.524E-08	5.175E-08	3.295E-08	1.839E-08	1.215E-08	8.009E-09	6.140E-09	4.910E-09	4.037E-09	3.393E-09	2.902E-09
NE	1.462E-07	6.890E-08	4.482E-08	2.579E-08	1.716E-08	1.127E-08	8.624E-09	6.869E-09	5.634E-09	4.725E-09	4.032E-09
ENE	7.136E-08	5.136E-08	3.447E-08	2.074E-08	1.508E-08	9.424E-09	7.197E-09	5.722E-09	4.684E-09	3.922E-09	3.341E-09
E	8.271E-08	5.959E-08	3.923E-08	2.171E-08	1.421E-08	1.020E-08	7.764E-09	6.154E-09	5.024E-09	4.196E-09	3.567E-09
ESE	4.454E-08	3.547E-08	2.547E-08	1.503E-08	8.522E-09	6.111E-09	4.648E-09	3.681E-09	3.003E-09	2.506E-09	2.124E-09
SE	2.445E-08	1.871E-08	1.739E-08	1.225E-08	7.490E-09	5.694E-09	4.306E-09	3.392E-09	2.754E-09	2.280E-09	1.936E-09
SSE	3.471E-08	2.701E-08	1.777E-08	9.816E-09	6.521E-09	4.445E-09	3.511E-09	2.765E-09	2.245E-09	1.864E-09	1.577E-09

VENT AND BUILDING PARAMETERS

RELEASE HEIGHT (METERS) 152.4
 DIAMETER (METERS) 0.25
 EXIT VELOCITY (METERS) 10.24

REF. WIND HEIGHT (METERS) 152.4
 BUILDING HEIGHT (METERS) 0.0
 LOG. MIN. CRS. SEC. AREA (SQ. METERS) 0.0
 HEAT EMISSION RATE (CAL/SEC) 0.0

ALL ELEVATED RELEASES.

BEAVER VALLEY, PA 1977 THRU 1981 : JFO INFO CALN*, 25M/S HT*152.0M DELTA T=0-L

COMPLING TOWER (PROCESS VENT): CONTINUOUS ELEVATED RELEASE
 2.2M DAY DECAY, UNDEPLETED

CHTZ (INFCZ/ITER CODE) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.125E-08	2.747E-08	4.579E-08	4.455E-08	3.485E-08	2.508E-08	1.141E-08	5.187E-09	3.068E-09	2.060E-09
SSW	4.424E-09	1.135E-08	1.886E-08	2.062E-08	2.328E-08	2.152E-08	9.394E-09	4.318E-09	2.579E-09	1.740E-09
SW	5.835E-09	1.280E-08	1.856E-08	2.374E-08	3.308E-08	3.046E-08	1.329E-08	6.196E-09	3.734E-09	2.543E-09
WSW	8.687E-09	2.496E-08	7.380E-08	9.255E-08	8.546E-08	4.265E-08	1.563E-08	7.302E-09	4.422E-09	3.026E-09
W	6.151E-09	1.162E-08	1.717E-08	1.981E-08	2.140E-08	2.544E-08	1.647E-08	7.437E-09	4.456E-09	3.021E-09
WNW	5.277E-09	1.110E-08	1.442E-08	2.126E-08	2.117E-08	2.506E-08	1.511E-08	6.220E-09	3.465E-09	2.348E-09
NW	5.408E-09	1.199E-08	1.741E-08	2.024E-08	2.269E-08	2.028E-08	1.187E-08	5.860E-09	3.538E-09	2.416E-09
WNW	5.634E-09	9.305E-09	1.624E-08	2.002E-08	2.293E-08	2.482E-08	1.255E-08	5.943E-09	3.626E-09	2.495E-09
N	6.476E-09	2.153E-08	4.033E-08	4.982E-08	5.576E-08	3.960E-08	1.637E-08	7.683E-09	4.658E-09	3.173E-09
NNE	9.673E-09	3.426E-08	5.781E-08	6.471E-08	7.046E-08	4.862E-08	1.885E-08	8.369E-09	4.931E-09	3.422E-09
NE	1.402E-08	5.023E-08	8.443E-08	1.048E-07	1.095E-07	6.648E-08	2.618E-08	1.178E-08	6.900E-09	4.737E-09
ENE	1.226E-08	3.883E-08	6.382E-08	7.554E-08	7.410E-08	5.052E-08	2.150E-08	9.510E-09	5.748E-09	3.933E-09
E	1.228E-08	4.599E-08	7.135E-08	7.420E-08	8.032E-08	5.568E-08	2.227E-08	1.030E-08	6.104E-09	4.278E-09
ESE	8.123E-09	2.715E-08	4.480E-08	5.180E-08	5.077E-08	3.305E-08	1.335E-08	6.169E-09	3.649E-09	2.514E-09
SE	6.702E-09	2.048E-08	3.028E-08	3.108E-08	2.737E-08	1.937E-08	1.143E-08	5.751E-09	3.410E-09	2.295E-09
SSE	7.755E-09	3.507E-08	5.501E-08	5.054E-08	3.962E-08	2.484E-08	1.012E-08	4.692E-09	2.780E-09	1.870E-09

BEAVERHILL VALLEY, MA 1977 THRU 1981 1 JFD INFO CALM, 25075 HEI 152.0M DELTA T=0.1

COULING TOWER (PROCESS VENT) CONTINUOUS ELEVATED RELEASE

R. 20% DAY DECAY, DEPLETED

CORRECTED USING SITE-SPECIFIC FACTORS

ANNUAL AVERAGE CH1/0 (SECT/METER CONED)

DISTANCE IN MILES FROM THE SITE

SECTION	0.25M	0.50M	0.75M	1.00M	1.50M	2.00M	2.50M	3.00M	3.50M	4.00M	4.50M
S	3.427E-04	8.244E-04	1.072E-03	1.256E-03	2.306E-03	3.673E-03	4.502E-03	4.454E-03	4.354E-03	3.458E-03	3.401E-03
SSW	1.224E-04	2.955E-04	4.455E-04	5.212E-04	1.004E-03	1.484E-03	1.858E-03	2.076E-03	2.031E-03	1.463E-03	2.259E-03
SW	2.724E-04	4.561E-04	5.332E-04	5.628E-04	1.084E-03	1.520E-03	1.863E-03	1.986E-03	2.296E-03	2.617E-03	3.187E-03
WSW	3.172E-04	5.034E-04	6.428E-04	1.130E-03	2.538E-03	4.197E-03	7.772E-03	8.851E-03	8.992E-03	4.707E-03	8.657E-03
W	2.547E-04	4.826E-04	5.638E-04	6.844E-04	1.104E-03	1.390E-03	1.697E-03	1.849E-03	1.920E-03	1.991E-03	2.081E-03
WNW	2.230E-04	4.088E-04	4.478E-04	5.817E-04	9.474E-04	1.452E-03	1.933E-03	2.167E-03	2.100E-03	1.487E-03	2.071E-03
NW	1.937E-04	3.438E-04	5.425E-04	7.182E-04	1.114E-03	1.438E-03	1.669E-03	1.804E-03	1.955E-03	2.134E-03	2.232E-03
NNW	6.612E-04	2.322E-03	3.375E-03	4.224E-03	8.411E-03	1.212E-03	1.587E-03	1.857E-03	1.954E-03	2.068E-03	2.256E-03
N	3.016E-04	4.716E-04	6.280E-04	8.045E-04	1.597E-03	3.157E-03	4.212E-03	4.347E-03	4.972E-03	5.394E-03	5.682E-03
NNE	1.924E-04	5.227E-04	7.061E-04	1.286E-03	3.463E-03	4.653E-03	5.698E-03	6.375E-03	6.413E-03	6.354E-03	6.989E-03
NE	1.416E-04	6.472E-04	1.125E-03	1.928E-03	4.601E-03	6.694E-03	8.328E-03	9.395E-03	1.025E-03	1.094E-03	1.097E-03
ENE	2.180E-04	6.216E-04	1.254E-03	1.601E-03	3.597E-03	5.074E-03	6.222E-03	7.013E-03	7.455E-03	7.521E-03	7.227E-03
E	1.448E-04	4.954E-04	1.032E-03	1.681E-03	3.915E-03	6.382E-03	7.386E-03	7.857E-03	7.118E-03	7.527E-03	7.425E-03
ESE	1.774E-04	3.086E-04	7.449E-04	1.104E-03	2.404E-03	3.622E-03	4.265E-03	4.952E-03	5.094E-03	5.078E-03	5.095E-03
SE	1.432E-04	3.196E-04	5.482E-04	8.463E-04	1.866E-03	2.667E-03	3.807E-03	3.080E-03	3.025E-03	2.427E-03	2.640E-03
SSE	1.007E-04	4.094E-04	6.702E-04	9.836E-04	3.145E-03	4.901E-03	5.645E-03	5.683E-03	4.907E-03	4.357E-03	3.862E-03

ANNUAL AVERAGE CH1/0 (SECT/METER CONED)

DISTANCE IN MILES FROM THE SITE

SECTION	5.00M	7.50M	10.00M	15.00M	20.00M	25.00M	30.00M	35.00M	40.00M	45.00M	50.00M
S	3.032E-03	2.740E-03	1.446E-03	1.067E-03	6.802E-04	4.776E-04	3.566E-04	2.779E-04	2.235E-04	1.841E-04	1.545E-04
SSW	2.585E-03	2.518E-03	1.650E-03	8.441E-04	5.662E-04	3.946E-04	3.001E-04	2.353E-04	1.897E-04	1.566E-04	1.317E-04
SW	3.453E-03	3.427E-03	2.278E-03	1.225E-03	7.868E-04	5.564E-04	4.178E-04	3.276E-04	2.644E-04	2.193E-04	1.854E-04
WSW	7.396E-03	3.985E-03	2.58E-03	1.368E-03	8.762E-04	6.185E-04	4.644E-04	3.538E-04	2.939E-04	2.432E-04	2.050E-04
W	2.159E-03	2.376E-03	2.446E-03	1.539E-03	9.871E-04	6.976E-04	5.241E-04	4.107E-04	3.320E-04	2.747E-04	2.316E-04
WNW	2.137E-03	2.549E-03	2.693E-03	1.444E-03	4.222E-04	5.422E-04	4.066E-04	3.181E-04	2.567E-04	2.122E-04	1.787E-04
NW	2.348E-03	2.083E-03	1.849E-03	1.254E-03	7.813E-04	5.538E-04	4.171E-04	3.276E-04	2.654E-04	2.201E-04	1.859E-04
NNW	2.494E-03	2.488E-03	2.132E-03	1.153E-03	7.434E-04	5.285E-04	3.984E-04	3.132E-04	2.534E-04	2.104E-04	1.787E-04
N	5.706E-03	4.211E-03	2.748E-03	1.446E-03	9.549E-04	6.755E-04	5.079E-04	3.983E-04	3.223E-04	2.664E-04	2.252E-04
NNE	7.457E-03	5.021E-03	3.119E-03	1.666E-03	1.468E-03	8.868E-04	5.166E-04	4.054E-04	3.282E-04	2.720E-04	2.298E-04
NE	1.446E-03	6.658E-03	4.222E-03	2.317E-03	1.498E-03	9.595E-04	7.194E-04	5.630E-04	4.546E-04	3.760E-04	3.169E-04
ENE	6.944E-03	5.019E-03	3.404E-03	1.923E-03	1.178E-03	8.294E-04	6.215E-04	4.863E-04	3.926E-04	3.207E-04	2.737E-04
E	4.151E-03	5.780E-03	3.749E-03	1.976E-03	1.298E-03	8.432E-04	6.600E-04	5.150E-04	4.107E-04	3.421E-04	2.877E-04
ESE	4.765E-03	3.431E-03	2.415E-03	1.185E-03	7.544E-04	5.292E-04	3.954E-04	3.085E-04	2.484E-04	2.049E-04	1.723E-04
SE	2.404E-03	1.415E-03	1.692E-03	1.206E-03	7.725E-04	5.427E-04	4.057E-04	3.166E-04	2.549E-04	2.102E-04	1.767E-04
SSE	3.504E-03	2.637E-03	1.700E-03	9.010E-04	5.858E-04	4.104E-04	3.055E-04	2.377E-04	1.909E-04	1.570E-04	1.317E-04

VENT AND BUILDING PARAMETERS

RELEASE HEIGHT (METERS) 152.0
 DIAMETER (METERS) 0.25
 EXIT VELOCITY (METERS) 10.20

REF. WIND HEIGHT (METERS) 152.0
 BUILDING HEIGHT (METERS) 0.9
 BLDG. MIN. CRS. SEC. AREA (SQ. METERS) 0.0
 HEAT ENTSY (0% HALF) (CAL/SEC) 0.0

ALL ELEVATED RELEASES.

HEAVEN VALLEY, PA 1977 THRU 1981 : JED INFI CALIB, 25M/5 DT=152.4M DELTA T=10-L

COILING TOWER (PROCESS VENT) CONTINUOUS ELEVATED RELEASE
8.40M DAY DECAY, DEPLETED

DIR/2 (SECTOR/ETA CORNED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.279E-08	2.680E-08	4.442E-08	4.337E-08	3.400E-08	2.475E-08	1.101E-08	4.832E-09	2.747E-09	1.848E-09
SSW	9.325E-09	1.111E-08	1.447E-08	2.018E-08	2.289E-08	2.147E-08	9.130E-09	4.042E-09	2.364E-09	1.572E-09
SW	5.724E-09	1.185E-08	1.820E-08	2.330E-08	3.265E-08	3.011E-08	1.264E-08	5.623E-09	3.245E-09	2.291E-09
WSW	8.537E-09	2.462E-08	7.250E-08	9.220E-08	8.501E-08	4.109E-08	1.414E-08	6.256E-09	3.659E-09	2.441E-09
W	6.413E-09	1.137E-08	1.676E-08	1.927E-08	2.093E-08	2.537E-08	1.584E-08	7.054E-09	4.131E-09	2.757E-09
WNW	5.153E-09	1.091E-08	1.899E-08	2.076E-08	2.071E-08	2.507E-08	1.409E-08	5.893E-09	3.200E-09	2.130E-09
NW	5.764E-09	1.170E-08	1.661E-08	1.982E-08	2.232E-08	2.029E-08	1.176E-08	5.598E-09	3.295E-09	2.298E-09
WNW	3.518E-09	9.130E-09	1.545E-08	1.970E-08	2.268E-08	2.052E-08	1.188E-08	5.338E-09	3.150E-09	2.115E-09
N	6.717E-09	2.114E-08	3.965E-08	4.953E-08	5.578E-08	3.893E-08	1.531E-08	6.830E-09	4.007E-09	2.679E-09
NNE	9.478E-09	3.375E-08	5.640E-08	6.382E-08	6.476E-08	4.713E-08	1.721E-08	7.203E-09	4.077E-09	2.730E-09
NE	1.375E-08	4.940E-08	8.520E-08	1.027E-07	1.077E-07	6.420E-08	2.377E-08	1.007E-08	5.664E-09	3.774E-09
ENE	1.240E-08	3.810E-08	6.232E-08	7.354E-08	7.209E-08	4.906E-08	2.010E-08	8.392E-09	4.692E-09	3.268E-09
E	1.201E-08	3.515E-08	6.486E-08	7.256E-08	7.841E-08	5.386E-08	2.042E-08	8.939E-09	5.102E-09	3.435E-09
ESE	7.441E-09	2.658E-08	4.368E-08	5.047E-08	4.968E-08	3.187E-08	1.222E-08	5.356E-09	3.104E-09	2.057E-09
SE	6.610E-09	2.004E-08	2.943E-08	3.003E-08	2.640E-08	1.842E-08	1.122E-08	5.492E-09	3.186E-09	2.111E-09
SSE	7.503E-09	3.445E-08	5.462E-08	4.933E-08	3.876E-08	2.414E-08	9.385E-09	4.151E-09	2.342E-09	1.577E-09

HEAVEN HOLLOW, PA 1977 THRU 1981 1 JED THRU CALM, 25-4/3 NTR152,04 DELTA TRU-L

COOLING TOWER (PROCESS VENT): CONTINUOUS ELEVATED RELEASE

CONNECTED USING SITE-SPECIFIC FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (MG-M²) AT FIXED POINTS BY DIRECTION SECTIONS *****

DIRECTION FROM SITE	DISTANCES IN MILES											
	0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	
S	1.314E-10	1.095E-10	9.626E-11	8.825E-11	6.808E-11	5.568E-11	4.347E-11	3.464E-11	2.554E-11	1.730E-11	1.505E-11	
SSW	9.147E-11	3.764E-11	3.585E-11	3.483E-11	2.424E-11	1.818E-11	1.432E-11	1.146E-11	8.575E-12	6.564E-12	5.427E-12	
SW	5.721E-11	4.984E-11	4.716E-11	4.564E-11	2.602E-11	1.695E-11	1.334E-11	1.068E-11	9.132E-12	7.853E-12	7.419E-12	
WSW	6.414E-11	5.979E-11	5.721E-11	5.576E-11	3.194E-11	2.485E-11	2.374E-11	1.857E-11	1.778E-11	1.496E-11	2.258E-11	
W	6.522E-11	5.872E-11	5.830E-11	5.822E-11	3.393E-11	2.224E-11	1.762E-11	1.414E-11	1.149E-11	9.459E-12	7.868E-12	
WNW	5.955E-11	5.264E-11	5.141E-11	5.013E-11	3.368E-11	2.456E-11	1.938E-11	1.553E-11	1.154E-11	8.784E-12	7.654E-12	
NW	7.178E-11	6.144E-11	5.578E-11	5.254E-11	3.299E-11	2.316E-11	1.738E-11	1.348E-11	1.038E-11	8.194E-12	6.815E-12	
NWN	4.610E-11	4.110E-11	4.026E-11	3.986E-11	2.351E-11	1.561E-11	1.232E-11	9.882E-12	7.633E-12	6.010E-12	4.999E-12	
N	8.298E-11	7.158E-11	6.888E-11	6.413E-11	4.256E-11	3.095E-11	2.022E-11	1.737E-11	1.392E-11	1.114E-11	9.201E-12	
NNE	9.156E-11	8.726E-11	9.389E-11	9.707E-11	6.823E-11	5.078E-11	3.867E-11	3.473E-11	2.788E-11	2.074E-11	1.785E-11	
NE	1.424E-10	1.474E-10	1.715E-10	1.872E-10	1.296E-10	9.435E-11	7.533E-11	6.076E-11	6.191E-11	4.976E-11	3.921E-11	
ENE	1.376E-10	1.414E-10	1.615E-10	1.747E-10	1.192E-10	8.604E-11	7.172E-11	5.494E-11	4.885E-11	4.796E-11	4.035E-11	
E	1.548E-10	1.566E-10	1.843E-10	2.023E-10	1.393E-10	1.008E-10	7.284E-11	5.415E-11	4.434E-11	4.441E-11	3.551E-11	
ESE	1.211E-10	1.173E-10	1.276E-10	1.344E-10	9.880E-11	7.558E-11	5.772E-11	4.494E-11	3.877E-11	3.106E-11	2.428E-11	
SE	9.439E-11	9.118E-11	9.882E-11	1.040E-10	7.632E-11	5.836E-11	4.456E-11	3.469E-11	2.707E-11	2.148E-11	1.623E-11	
SSE	8.944E-11	8.144E-11	8.123E-11	8.159E-11	6.283E-11	5.023E-11	3.835E-11	3.204E-11	2.673E-11	1.937E-11	1.447E-11	

DIRECTION FROM SITE	DISTANCES IN MILES										
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	1.167E-11	8.043E-12	6.834E-12	5.456E-12	2.042E-12	1.403E-12	1.005E-12	7.558E-13	5.870E-13	4.684E-13	3.827E-13
SSW	6.147E-12	4.984E-12	3.966E-12	1.956E-12	1.183E-12	7.928E-13	5.695E-13	4.283E-13	3.330E-13	2.664E-13	2.171E-13
SW	8.281E-12	6.965E-12	5.929E-12	2.722E-12	1.664E-12	1.113E-12	7.974E-13	5.988E-13	4.656E-13	3.714E-13	3.036E-13
WSW	2.133E-12	1.046E-12	6.561E-13	3.316E-13	2.407E-13	1.346E-13	9.643E-14	7.241E-14	5.630E-14	4.497E-14	3.671E-14
W	6.404E-12	3.931E-12	7.079E-13	3.579E-13	2.166E-13	1.453E-13	1.041E-13	7.815E-14	6.077E-14	4.854E-14	3.962E-14
WNW	6.498E-12	3.982E-12	7.518E-13	3.843E-13	2.308E-13	1.286E-13	9.214E-14	6.919E-14	5.388E-14	4.297E-14	3.508E-14
NW	5.727E-12	3.386E-12	5.145E-13	3.491E-13	2.033E-13	1.363E-13	9.769E-14	7.336E-14	5.704E-14	4.556E-14	3.719E-14
NWN	5.419E-12	6.436E-13	5.002E-13	2.935E-13	1.776E-13	1.191E-13	8.533E-14	6.408E-14	4.982E-14	3.980E-14	3.244E-14
N	1.241E-12	1.279E-12	8.048E-13	4.078E-13	2.464E-13	1.652E-13	1.184E-13	8.888E-14	6.911E-14	5.523E-14	4.508E-14
NNE	2.262E-12	2.000E-12	1.247E-12	6.502E-13	3.812E-13	2.325E-13	1.666E-13	1.251E-13	9.726E-14	7.764E-14	6.341E-14
NE	4.087E-12	2.406E-12	1.655E-12	1.044E-12	6.449E-13	3.929E-13	2.816E-13	2.114E-13	1.644E-13	1.313E-13	1.072E-13
ENE	3.382E-12	1.839E-12	1.827E-12	8.736E-13	5.083E-13	3.408E-13	2.442E-13	1.834E-13	1.426E-13	1.134E-13	9.295E-14
E	3.468E-12	2.898E-12	1.621E-12	9.276E-13	5.572E-13	3.736E-13	2.677E-13	2.010E-13	1.563E-13	1.249E-13	1.019E-13
ESE	2.085E-12	1.721E-12	1.092E-12	5.514E-13	3.340E-13	2.239E-13	1.605E-13	1.205E-13	9.368E-14	7.443E-14	6.108E-14
SE	1.254E-12	7.454E-13	4.473E-13	4.480E-13	2.712E-13	1.818E-13	1.303E-13	9.783E-14	7.607E-14	6.077E-14	4.964E-14
SSE	1.112E-12	8.122E-13	6.202E-13	3.364E-13	2.025E-13	1.358E-13	9.729E-14	7.305E-14	5.680E-14	4.537E-14	3.704E-14

HEAVENLYVALLEY, PA 1977 TOWN 1981 JFD INFD CALM, 25M/S NTR152.4M DELTA T=0=L

CONTINUING TOWER (PROCESS VENT): CONTINUOUS ELEVATED RELEASE

***** RELATIVE DEPOSITION PER UNIT AREA (MG/M²) BY DOWNWIND SECTORS *****

SEGMENT BOUNDARIES IN MILES

DIRECTION FROM SITE	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.549E-10	0.749E-10	0.519E-10	2.438E-10	1.449E-10	8.312E-11	5.607E-11	1.428E-11	7.626E-12	4.720E-12
SSW	3.540E-10	2.540E-10	1.420E-10	8.636E-11	6.199E-11	4.744E-11	2.437E-11	8.074E-12	4.525E-12	2.678E-12
SW	4.747E-10	2.655E-10	1.520E-10	4.088E-11	7.867E-11	6.573E-11	2.857E-11	1.133E-11	6.048E-12	3.743E-12
WSW	5.714E-10	3.231E-10	2.440E-10	1.693E-10	1.986E-10	1.114E-10	3.456E-11	1.370E-11	7.514E-12	4.527E-12
W	5.436E-10	3.415E-10	1.747E-10	1.147E-10	7.873E-11	5.925E-11	3.729E-11	1.478E-11	7.494E-12	4.886E-12
WNW	5.499E-10	3.328E-10	1.422E-10	1.163E-10	7.636E-11	6.157E-11	3.964E-11	1.410E-11	6.488E-12	4.325E-12
NW	5.586E-10	3.297E-10	1.733E-10	1.041E-10	6.821E-11	4.674E-11	3.202E-11	1.387E-11	7.409E-12	4.586E-12
NNW	4.027E-10	2.303E-10	1.222E-10	7.657E-11	5.306E-11	5.839E-11	3.057E-11	1.212E-11	6.472E-12	4.086E-12
N	4.674E-10	4.224E-10	2.144E-10	1.346E-10	1.098E-10	1.060E-10	4.244E-11	1.601E-11	8.477E-12	5.559E-12
NNE	4.356E-10	6.645E-10	4.434E-10	2.712E-10	2.047E-10	1.743E-10	6.565E-11	2.458E-11	1.263E-11	7.820E-12
NE	1.731E-09	1.264E-09	7.457E-10	5.695E-10	4.295E-10	2.446E-10	1.009E-10	4.154E-11	2.135E-11	1.322E-11
ENE	1.629E-09	1.168E-09	7.082E-10	5.168E-10	4.019E-10	2.176E-10	9.230E-11	3.468E-11	1.852E-11	1.146E-11
E	1.861E-09	1.362E-09	7.282E-10	5.058E-10	3.817E-10	2.546E-10	9.591E-11	3.802E-11	2.034E-11	1.257E-11
ESE	1.243E-09	4.644E-10	5.737E-10	3.768E-10	2.502E-10	1.522E-10	5.750E-11	2.279E-11	1.217E-11	7.533E-12
SE	4.941E-10	7.048E-10	4.424E-10	2.712E-10	1.640E-10	7.249E-11	3.693E-11	1.854E-11	9.882E-12	6.116E-12
SSE	4.136E-10	4.144E-10	3.844E-10	2.545E-10	1.468E-10	7.935E-11	3.598E-11	1.382E-11	7.374E-12	4.567E-12

VENT AND BUILDING PARAMETERS:

RELEASE HEIGHT (METERS) 152.4M
 DIAMETER (METERS) 0.25
 EXIT VELOCITY (METERS) 10.20

REF. WIND HEIGHT (METERS) 152.4
 BUILDING HEIGHT (METERS) 0.0
 HLOG, MIN, CRS, SEC, AREA (SQ. METERS) 0.0
 HEAT EMISSION RATE (CAL/SEC) 0.0

ALL ELEVATED RELEASES.

CONJUG... RELEASE... COMPETING USING SITE-SPECIFIC FACTORS... SPECIFIC POINTS OF INTEREST

Table with columns: RELEASE TO, TYPE OF LOCATION, DIRECTION FROM SITE (MILES), DISTANCE, (METERS), (SEC/CUB. METER) UNDEPLETED, (SEC/CUB. METER) UNDEPLETED, (SEC/CUB. METER) UNDEPLETED, U/Q

VENT	RELEASE HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (METERS)	VENT & PL BUILDING PARAMETERS	RELEASE HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (METERS)	MEP, WIND HEIGHT (METERS)	AUCTION HEIGHT (METERS)	WIND VELOCITY (METERS)	HEAT EMISSION RATE (CAL/SEC)
A	FIRST HEAT ANPL	1.62	2600	1.2E-08	1.2E-08	1.2E-08	1.2E-08	1.2E-08	1.2E-08	1.2E-08	1.2E-08
A	FIRST HEAT ANPL	1.62	2600	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08
A	FIRST HEAT ANPL	2.61	4200	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08
A	FIRST HEAT ANPL	2.61	4200	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08
A	FIRST HEAT ANPL	2.61	4200	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08	1.8E-08
A	FIRST HEAT ANPL	2.61	4200	1.5E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08
A	FIRST HEAT ANPL	2.61	4200	4.1E-08	4.1E-08	4.1E-08	4.1E-08	4.1E-08	4.1E-08	4.1E-08	4.1E-08
A	FIRST HEAT ANPL	1.62	2600	3.5E-08	3.5E-08	3.5E-08	3.5E-08	3.5E-08	3.5E-08	3.5E-08	3.5E-08
A	FIRST HEAT ANPL	4.66	7500	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07
A	FIRST HEAT ANPL	2.61	4200	7.5E-08	7.5E-08	7.5E-08	7.5E-08	7.5E-08	7.5E-08	7.5E-08	7.5E-08
A	FIRST HEAT ANPL	0.94	1600	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08	1.1E-08
A	FIRST HEAT ANPL	2.11	3000	2.9E-08	2.9E-08	2.9E-08	2.9E-08	2.9E-08	2.9E-08	2.9E-08	2.9E-08
A	FIRST HEAT ANPL	1.24	2000	1.9E-08	1.9E-08	1.9E-08	1.9E-08	1.9E-08	1.9E-08	1.9E-08	1.9E-08
A	FIRST HEAT ANPL	2.17	3500	4.1E-08	4.1E-08	4.1E-08	4.1E-08	4.1E-08	4.1E-08	4.1E-08	4.1E-08
A	FIRST DAIKY CUM	2.24	3600	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08	1.7E-08
A	FIRST DAIKY CUM	3.29	5300	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08	8.8E-08
A	FIRST DAIKY CUM	3.23	5200	2.0E-08	2.0E-08	2.0E-08	2.0E-08	2.0E-08	2.0E-08	2.0E-08	2.0E-08
A	FIRST DAIKY CUM	2.80	4500	2.2E-08	2.2E-08	2.2E-08	2.2E-08	2.2E-08	2.2E-08	2.2E-08	2.2E-08
A	FIRST DAIKY CUM	4.66	7500	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07
A	FIRST DAIKY CUM	4.37	7000	8.0E-08	8.0E-08	8.0E-08	8.0E-08	8.0E-08	8.0E-08	8.0E-08	8.0E-08
A	FIRST DAIKY CUM	3.60	5800	3.1E-08	3.1E-08	3.1E-08	3.1E-08	3.1E-08	3.1E-08	3.1E-08	3.1E-08
A	FIRST DAIKY CUM	3.23	5200	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08	5.5E-08
A	FIRST DAIKY GOAT	3.67	5900	2.1E-08	2.1E-08	2.1E-08	2.1E-08	2.1E-08	2.1E-08	2.1E-08	2.1E-08
A	FIRST DAIKY GOAT	1.94	3200	1.5E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08	1.5E-08
A	FIRST DAIKY GOAT	14.29	23000	1.6E-08	1.6E-08	1.6E-08	1.6E-08	1.6E-08	1.6E-08	1.6E-08	1.6E-08
A	FIRST DAIKY GOAT	6.84	11000	2.5E-08	2.5E-08	2.5E-08	2.5E-08	2.5E-08	2.5E-08	2.5E-08	2.5E-08
A	FIRST DAIKY GOAT	9.32	15000	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08
A	FIRST DAIKY GOAT	2.73	4400	4.3E-08	4.3E-08	4.3E-08	4.3E-08	4.3E-08	4.3E-08	4.3E-08	4.3E-08
A	FIRST DAIKY GOAT	3.73	6000	6.5E-08	6.5E-08	6.5E-08	6.5E-08	6.5E-08	6.5E-08	6.5E-08	6.5E-08
A	FIRST DAIKY GOAT	1.30	2100	3.6E-08	3.6E-08	3.6E-08	3.6E-08	3.6E-08	3.6E-08	3.6E-08	3.6E-08
A	FIRST DAIKY GOAT	4.10	6700	7.7E-08	7.7E-08	7.7E-08	7.7E-08	7.7E-08	7.7E-08	7.7E-08	7.7E-08
A	FIRST DAIKY GOAT	2.61	4200	7.5E-08	7.5E-08	7.5E-08	7.5E-08	7.5E-08	7.5E-08	7.5E-08	7.5E-08
A	FIRST DAIKY GOAT	1.80	2900	3.3E-08	3.3E-08	3.3E-08	3.3E-08	3.3E-08	3.3E-08	3.3E-08	3.3E-08
A	FIRST DAIKY GOAT	3.60	5800	3.1E-08	3.1E-08	3.1E-08	3.1E-08	3.1E-08	3.1E-08	3.1E-08	3.1E-08
A	FIRST DAIKY GOAT	6.21	10000	3.5E-08	3.5E-08	3.5E-08	3.5E-08	3.5E-08	3.5E-08	3.5E-08	3.5E-08
A	MAXIMUM CH1/0	3.00	4824	5.1E-08	5.1E-08	5.1E-08	5.1E-08	5.1E-08	5.1E-08	5.1E-08	5.1E-08
A	MAXIMUM CH1/0	5.00	8007	2.7E-08	2.7E-08	2.7E-08	2.7E-08	2.7E-08	2.7E-08	2.7E-08	2.7E-08
A	MAXIMUM CH1/0	5.00	8007	4.0E-08	4.0E-08	4.0E-08	4.0E-08	4.0E-08	4.0E-08	4.0E-08	4.0E-08
A	MAXIMUM CH1/0	4.00	6037	9.9E-08	9.9E-08	9.9E-08	9.9E-08	9.9E-08	9.9E-08	9.9E-08	9.9E-08
A	MAXIMUM CH1/0	10.00	16093	3.0E-08	3.0E-08	3.0E-08	3.0E-08	3.0E-08	3.0E-08	3.0E-08	3.0E-08
A	MAXIMUM CH1/0	10.00	16093	2.9E-08	2.9E-08	2.9E-08	2.9E-08	2.9E-08	2.9E-08	2.9E-08	2.9E-08
A	MAXIMUM CH1/0	5.00	8007	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08	2.4E-08
A	MAXIMUM CH1/0	7.50	12073	3.0E-08	3.0E-08	3.0E-08	3.0E-08	3.0E-08	3.0E-08	3.0E-08	3.0E-08
A	MAXIMUM CH1/0	5.00	8007	5.7E-08	5.7E-08	5.7E-08	5.7E-08	5.7E-08	5.7E-08	5.7E-08	5.7E-08
A	MAXIMUM CH1/0	5.00	8007	7.3E-08	7.3E-08	7.3E-08	7.3E-08	7.3E-08	7.3E-08	7.3E-08	7.3E-08
A	MAXIMUM CH1/0	4.50	7242	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07	1.1E-07
A	MAXIMUM CH1/0	4.00	6037	7.0E-08	7.0E-08	7.0E-08	7.0E-08	7.0E-08	7.0E-08	7.0E-08	7.0E-08
A	MAXIMUM CH1/0	5.00	8007	8.3E-08	8.3E-08	8.3E-08	8.3E-08	8.3E-08	8.3E-08	8.3E-08	8.3E-08
A	MAXIMUM CH1/0	4.50	7242	5.3E-08	5.3E-08	5.3E-08	5.3E-08	5.3E-08	5.3E-08	5.3E-08	5.3E-08
A	MAXIMUM CH1/0	3.00	4824	3.2E-08	3.2E-08	3.2E-08	3.2E-08	3.2E-08	3.2E-08	3.2E-08	3.2E-08
A	MAXIMUM CH1/0	3.00	4824	5.0E-08	5.0E-08	5.0E-08	5.0E-08	5.0E-08	5.0E-08	5.0E-08	5.0E-08

VENT & PL BUILDING PARAMETERS
RELEASE HEIGHT (METERS) 152.4
DIAMETER (METERS) 0.25
EXIT VELOCITY (METERS) 10.24
MEP, WIND HEIGHT (METERS) 152.4
AUCATION HEIGHT (METERS) W.W
WIND VELOCITY (METERS) W.W
HEAT EMISSION RATE (CAL/SEC) W.W

ALL ELEVATED RELEASES.

5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	3.00	5.00	17.00	26.00	114.00	372.00	422.00	65.00	16.00	3.00	1.00	0.00	2.00	1.00	3.00	6.00
6	2.00	17.00	26.00	52.00	153.00	557.00	825.00	186.00	19.00	5.00	4.00	1.00	2.00	4.00	1.00	4.00
6	3.10	4.00	26.00	64.00	115.00	224.00	586.00	329.00	59.00	14.00	4.00	3.00	1.00	0.00	2.00	1.00
5	1.00	14.00	17.00	39.00	34.00	22.00	76.00	207.00	117.00	15.00	4.00	1.00	0.00	0.00	2.00	0.00
6	0.00	6.00	1.00	7.00	0.00	1.00	0.00	12.00	76.00	17.00	2.00	3.00	1.00	2.00	0.00	0.00
6	0.00	1.00	0.00	0.00	0.00	0.00	0.00	2.00	24.00	8.00	1.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	-1.	0.250	0.500	0.750	1.000	1.500	2.000	3.000	5.000	10.000	12.000	0.000	0.000	0.000	0.000	0.000
8	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.	1609.
7	1.300	1.300	1.100	1.500	2.000	2.300	2.200	1.600	1.300	1.400	1.200	1.300	1.400	1.200	1.200	1.300
6	3214.	3214.	3214.	3218.	3218.	3218.	3218.	3218.	3218.	3218.	3218.	3218.	3218.	3218.	3218.	3218.
9	1.100	1.100	1.300	1.500	2.000	2.200	2.200	1.600	1.300	1.200	1.400	1.500	1.200	1.200	1.300	1.300
8	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.	4827.
0	1.100	1.100	1.100	1.500	1.400	2.100	2.100	1.500	1.200	1.200	1.400	1.600	1.200	1.200	1.300	1.100
4	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.	6436.
9	1.000	1.100	1.100	1.400	1.400	2.100	2.100	1.400	1.100	1.200	1.200	1.600	1.100	1.100	1.100	1.000
8	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.	8045.
7	1.000	1.000	1.000	1.300	1.400	1.700	1.700	1.300	1.000	1.200	1.100	1.300	1.100	1.000	1.100	1.000
8	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.	9654.
9	1.000	1.000	1.000	1.000	1.400	1.500	1.600	1.200	1.000	1.100	1.000	1.100	1.000	1.000	1.000	1.000
8	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.	11263.
9	1.000	1.000	1.000	1.000	1.200	1.400	1.400	1.100	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.	12872.
2	1.000	1.000	1.000	1.000	1.000	1.200	1.200	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
*	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.	14481.
9	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10	2011.	2011.	1850.	998.	1046.	2011.	804.	1529.	2092.	1126.	2092.	1769.	1963.	1850.	2172.	1609.
11	19.	21.	13.	21.	6.	12.	6.	9.	20.	21.	31.	20.	22.	19.	19.	18.
10	4225.	4183.	3504.	2172.	2092.	4103.	2172.	2574.	4022.	4988.	4666.	2735.	3781.	3990.	4988.	2333.
11	50.	40.	30.	41.	18.	33.	21.	27.	64.	76.	67.	35.	57.	44.	39.	37.
10	6436.	6754.	5020.	3057.	4022.	6114.	3862.	4103.	6034.	9332.	7401.	4505.	5792.	5712.	8367.	4344.
11	73.	61.	46.	61.	30.	46.	32.	11.	73.	136.	107.	52.	76.	75.	68.	69.
10	9252.	9332.	7723.	4183.	6034.	9171.	5149.	5712.	8369.	13355.	9654.	6114.	7884.	7562.	14320.	7884.
11	91.	91.	76.	98.	41.	61.	41.	56.	120.	171.	131.	72.	108.	106.	84.	104.
10	11207.	11423.	9042.	5470.	8367.	10458.	6436.	7884.	9960.	35237.	22526.	8045.	9413.	9493.	16734.	9895.
11	119.	114.	95.	110.	61.	81.	58.	79.	143.	180.	140.	85.	132.	120.	112.	138.
10	13837.	13757.	10137.	6275.	10137.	12711.	8850.	9574.	19791.	51488.	27514.	13194.	10024.	10056.	19147.	24135.
11	143.	146.	107.	128.	79.	97.	79.	101.	152.	180.	155.	116.	144.	141.	144.	141.
10	35189.	33234.	12067.	8045.	12872.	14642.	14160.	11585.	35881.	59211.	41673.	16412.	35559.	27836.	34858.	27675.
11	150.	149.	122.	152.	74.	133.	101.	119.	155.	183.	171.	152.	158.	156.	159.	166.
10	51279.	52453.	13194.	9654.	14642.	16814.	18986.	13435.	60016.	70474.	43443.	18101.	67578.	35076.	62429.	40225.
11	163.	152.	149.	175.	134.	161.	125.	148.	155.	198.	198.	174.	172.	156.	178.	190.
10	55108.	56154.	27514.	35237.	17377.	18101.	24135.	33950.	72083.	73049.	56154.	19952.	71600.	52132.	64682.	43282.
11	210.	161.	154.	184.	165.	190.	149.	151.	161.	219.	213.	192.	189.	156.	189.	210.
10	59533.	59533.	42944.	51464.	18986.	19147.	27836.	35398.	75945.	75623.	66934.	60338.	74979.	75462.	67176.	59372.
11	267.	171.	181.	149.	204.	216.	155.	155.	180.	256.	247.	215.	213.	165.	210.	243.

FIRST WEST RIDGE

14	1	790.0	2	1000.0	3	1300.0	4	460.0	5	540.0	6	600.0	7	470.0	8	460.0
	9	750.0	10	620.0	11	320.0	12	340.0	13	450.0	14	510.0	15	600.0	16	660.0

FIRST WEST-101

14	1	2100.0	2	1100.0	3	2100.0	4	2200.0	5	3500.0	6	3500.0	7	1300.0	8	1000.0
	9	2000.0	10	2500.0	11	610.0	12	610.0	13	660.0	14	1500.0	15	1700.0	16	1300.0

FIRST VEG GRASS

14	1	3000.0	2	2200.0	3	2100.0	4	2200.0	5	3500.0	6	3500.0	7	1400.0	8	1400.0
	9	2500.0	10	2600.0	11	620.0	12	1600.0	13	1900.0	14	1600.0	15	1700.0	16	1600.0

MEADEN VALLEY, PA 1977 THRU 1981 3 JFD 10FD CALM, 25M/S H=10.7M DELTA T=1-L

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS A

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.75	0.005	0.007	0.010	0.015	0.022	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.100	0.110	0.120	0.130	0.000
1.00	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055	0.060	0.065	0.070	0.075	0.080	0.085	0.090	0.000
1.50	0.100	0.120	0.150	0.180	0.200	0.220	0.240	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400	0.420	0.000
2.00	0.410	0.510	0.610	0.710	0.810	0.910	1.010	1.110	1.210	1.310	1.410	1.510	1.610	1.710	1.810	1.910	0.000
3.00	0.630	0.820	1.010	1.200	1.390	1.580	1.770	1.960	2.150	2.340	2.530	2.720	2.910	3.100	3.290	3.480	0.000
5.00	0.140	0.220	0.300	0.380	0.460	0.540	0.620	0.700	0.780	0.860	0.940	1.020	1.100	1.180	1.260	1.340	0.000
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.39	0.60	0.50	0.44	0.45	0.30	0.32	0.34	0.67	1.00	1.91	2.21	1.99	1.25	0.96	1.12	15.48

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS B

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.50	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
0.75	0.000	0.005	0.000	0.005	0.002	0.000	0.005	0.000	0.000	0.007	0.005	0.002	0.000	0.000	0.000	0.000	0.032
1.00	0.007	0.005	0.015	0.002	0.010	0.002	0.005	0.005	0.007	0.000	0.005	0.003	0.000	0.000	0.007	0.012	0.099
1.50	0.037	0.032	0.037	0.030	0.030	0.017	0.010	0.002	0.027	0.002	0.032	0.012	0.017	0.023	0.022	0.022	0.357
2.00	0.050	0.037	0.017	0.020	0.010	0.015	0.010	0.010	0.022	0.040	0.030	0.055	0.055	0.025	0.035	0.055	0.483
3.00	0.035	0.005	0.002	0.002	0.010	0.002	0.002	0.002	0.012	0.099	0.119	0.203	0.059	0.069	0.077	0.050	0.771
5.00	0.010	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.005	0.042	0.161	0.181	0.178	0.082	0.045	0.020	0.729
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.14	0.09	0.07	0.06	0.06	0.04	0.03	0.02	0.07	0.20	0.38	0.49	0.34	0.24	0.19	0.16	2.59

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS C

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.75	0.002	0.005	0.010	0.012	0.007	0.000	0.000	0.005	0.002	0.000	0.005	0.002	0.002	0.000	0.010	0.002	0.067
1.00	0.020	0.010	0.025	0.030	0.020	0.007	0.005	0.005	0.002	0.002	0.000	0.005	0.007	0.007	0.005	0.007	0.159
1.50	0.045	0.050	0.032	0.037	0.025	0.010	0.010	0.010	0.020	0.015	0.022	0.040	0.030	0.040	0.032	0.032	0.456
2.00	0.100	0.120	0.080	0.080	0.060	0.030	0.030	0.030	0.035	0.025	0.062	0.077	0.067	0.067	0.052	0.055	0.635
3.00	0.077	0.087	0.065	0.065	0.040	0.020	0.020	0.020	0.020	0.010	0.030	0.040	0.036	0.036	0.027	0.027	0.964
5.00	0.007	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.26	0.31	0.14	0.12	0.11	0.03	0.03	0.04	0.09	0.19	0.43	0.54	0.46	0.26	0.27	0.21	3.22

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS D

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.005	0.000	0.021	0.014	0.010	0.013	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.124
0.50	0.027	0.047	0.121	0.080	0.109	0.077	0.074	0.025	0.052	0.022	0.020	0.015	0.017	0.005	0.015	0.022	0.734
0.75	0.008	0.120	0.275	0.275	0.156	0.097	0.069	0.069	0.067	0.030	0.027	0.042	0.032	0.032	0.030	0.042	1.509
1.00	0.240	0.325	0.400	0.454	0.260	0.110	0.112	0.121	0.121	0.126	0.114	0.121	0.112	0.120	0.120	0.120	3.133
1.50	0.617	0.523	0.582	0.580	0.223	0.277	0.292	0.269	0.230	0.240	0.240	0.285	0.230	0.240	0.240	0.240	5.850
2.00	0.406	0.240	0.220	0.340	0.166	0.050	0.007	0.074	0.210	0.402	0.501	0.553	0.476	0.706	0.760	0.530	5.793

3.00	0.429	0.000	0.107	0.190	0.136	0.055	0.037	0.007	0.176	1.001	1.594	1.817	1.415	1.019	1.234	0.421	9.736
5.00	0.052	0.015	0.035	0.017	0.017	0.000	0.010	0.000	0.037	0.553	1.775	2.704	2.070	0.654	0.491	0.089	8.519
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.231	0.615	0.270	0.072	0.007	0.000	1.229
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002
TOTAL	1.94	1.58	1.97	1.96	1.04	0.08	0.07	0.43	1.01	2.47	4.51	6.15	4.79	3.08	3.12	1.76	36.63

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS E

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.006	0.000	0.023	0.036	0.000	0.037	0.037	0.021	0.000	0.006	0.002	0.002	0.003	0.002	0.003	0.003	0.200
0.50	0.037	0.057	0.149	0.233	0.302	0.367	0.230	0.134	0.052	0.040	0.010	0.012	0.020	0.015	0.022	0.022	1.790
0.75	0.074	0.104	0.273	0.342	0.506	0.374	0.394	0.243	0.169	0.047	0.047	0.020	0.035	0.032	0.032	0.050	2.741
1.00	0.126	0.200	0.444	0.426	0.377	0.258	0.231	0.352	0.390	0.188	0.077	0.040	0.092	0.074	0.072	0.097	3.460
1.50	0.176	0.280	0.466	0.416	0.101	0.074	0.072	0.223	0.578	0.436	0.226	0.049	0.114	0.104	0.139	0.161	3.735
2.00	0.092	0.124	0.151	0.235	0.009	0.035	0.035	0.035	0.332	0.464	0.203	0.112	0.069	0.077	0.069	0.087	2.260
3.00	0.030	0.007	0.020	0.009	0.042	0.010	0.007	0.015	0.119	0.523	0.454	0.211	0.064	0.050	0.045	0.022	1.700
5.00	0.002	0.000	0.002	0.005	0.002	0.002	0.000	0.000	0.027	0.141	0.337	0.221	0.067	0.025	0.015	0.007	0.055
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.020	0.032	0.007	0.002	0.000	0.000	0.000
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.50	0.79	1.53	1.78	1.62	1.18	1.01	1.02	1.68	1.85	1.45	0.74	0.47	0.39	0.40	0.45	16.90

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS F

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.002	0.005	0.000	0.019	0.009	0.131	0.004	0.024	0.006	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.359
0.50	0.020	0.037	0.062	0.156	0.553	1.048	0.711	0.196	0.050	0.022	0.010	0.005	0.002	0.002	0.000	0.003	2.800
0.75	0.027	0.050	0.077	0.245	0.505	0.964	1.264	0.397	0.092	0.037	0.022	0.012	0.010	0.005	0.012	0.027	3.827
1.00	0.027	0.045	0.092	0.231	0.374	0.394	0.558	0.600	0.201	0.072	0.025	0.012	0.007	0.005	0.010	0.042	2.694
1.50	0.027	0.059	0.009	0.171	0.067	0.045	0.004	0.250	0.408	0.191	0.047	0.022	0.015	0.002	0.002	0.005	1.566
2.00	0.015	0.022	0.015	0.010	0.007	0.005	0.005	0.015	0.312	0.156	0.045	0.010	0.005	0.005	0.000	0.000	0.627
3.00	0.005	0.002	0.000	0.000	0.000	0.000	0.002	0.002	0.062	0.094	0.047	0.012	0.000	0.000	0.007	0.000	0.235
5.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.020	0.005	0.002	0.002	0.000	0.000	0.042
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.010
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.12	0.22	0.34	0.83	1.66	2.59	2.72	1.48	1.21	0.59	0.22	0.09	0.04	0.02	0.03	0.08	12.24

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS G

UMAX (M/S)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.25	0.001	0.001	0.000	0.006	0.029	0.096	0.104	0.016	0.004	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.265
0.50	0.007	0.012	0.042	0.064	0.242	0.972	1.046	0.161	0.040	0.007	0.002	0.000	0.005	0.002	0.007	0.015	2.677
0.75	0.005	0.002	0.064	0.124	0.379	1.381	2.045	0.461	0.047	0.012	0.010	0.002	0.005	0.010	0.002	0.010	4.605
1.00	0.007	0.010	0.064	0.169	0.205	0.565	1.457	0.015	0.146	0.035	0.010	0.007	0.002	0.000	0.005	0.002	3.507
1.50	0.002	0.035	0.042	0.097	0.044	0.072	0.188	0.513	0.290	0.037	0.010	0.002	0.000	0.000	0.005	0.000	1.300
2.00	0.000	0.015	0.002	0.022	0.000	0.002	0.000	0.030	0.188	0.042	0.005	0.007	0.002	0.005	0.000	0.000	0.322
3.00	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.059	0.020	0.002	0.000	0.000	0.000	0.000	0.000	0.000
5.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.02	0.12	0.22	0.49	1.08	3.09	4.84	2.00	0.77	0.15	0.04	0.02	0.02	0.02	0.02	0.03	12.93

TOTAL HOURS CONSIDERED ARE 00345

WIND MEASURED AT 10.7 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
FREQUENCY	4.0	3.3	4.7	5.7	6.1	7.7	9.4	5.3	5.5	6.5	0.9	10.2	0.1	5.3	5.0	3.0	100.0

OVERALL WIND SPEED FREQUENCY

BEAVER VALLEY, 34 1777 E-00 100E + 100 1500 CAL=25MKS HT=10.7M DELTA T=I-L

CORRECTED FOR BUILDING HEIGHT AND WIND SPEED RELEASE
NO DECAY, 10136153
CORRECTED USING SITE-SPECIFIC FACTORS

SECTION	DISTANCE IN MILES FROM THE SITE										
	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.77E-07	1.05E-07	4.20E-08	1.01E-07	1.31E-07	1.34E-07	1.31E-07	1.21E-07	1.03E-07	8.73E-08	7.54E-08
SS	1.23E-07	5.16E-08	5.26E-08	6.92E-08	1.30E-07	1.36E-07	1.37E-07	1.32E-07	1.24E-07	1.15E-07	1.02E-07
SS	6.73E-08	2.05E-08	5.06E-08	1.11E-07	2.33E-07	3.06E-07	2.77E-07	2.37E-07	2.30E-07	2.21E-07	1.94E-07
SS	1.19E-07	6.72E-08	2.23E-07	4.79E-07	9.34E-07	1.24E-06	1.07E-06	8.42E-07	6.55E-07	5.29E-07	4.32E-07
SS	1.10E-07	6.17E-08	6.95E-08	1.70E-07	4.17E-07	5.59E-07	5.33E-07	4.85E-07	5.02E-07	5.20E-07	5.50E-07
SS	1.06E-07	4.90E-08	4.70E-08	1.09E-07	3.27E-07	6.33E-07	9.77E-07	1.18E-06	1.35E-06	1.46E-06	1.33E-06
SS	1.10E-07	1.61E-08	5.24E-08	1.37E-07	4.83E-07	8.05E-07	1.10E-06	1.39E-06	1.91E-06	2.45E-06	2.25E-06
SS	1.10E-08	3.14E-08	2.98E-08	7.02E-08	2.35E-07	4.85E-07	6.23E-07	7.14E-07	7.44E-07	7.43E-07	6.79E-07
SS	1.34E-07	5.53E-08	7.15E-08	1.39E-07	3.13E-07	5.56E-07	6.35E-07	5.16E-07	4.04E-07	3.23E-07	2.61E-07
NNE	1.40E-05	4.72E-06	2.56E-06	1.66E-06	8.42E-07	5.20E-07	3.77E-07	2.98E-07	2.33E-07	1.92E-07	1.63E-07
NE	9.79E-06	3.35E-06	1.79E-06	1.15E-06	6.83E-07	4.72E-07	3.38E-07	2.57E-07	1.88E-07	1.44E-07	1.16E-07
E	1.12E-07	2.56E-07	5.04E-07	3.55E-07	3.58E-07	3.17E-07	2.65E-07	2.25E-07	1.88E-07	1.57E-07	1.19E-07
E	9.17E-07	2.20E-07	2.07E-07	2.76E-07	2.65E-07	2.27E-07	1.90E-07	1.53E-07	1.20E-07	9.65E-08	8.19E-08
ESE	6.32E-06	2.19E-06	1.15E-06	7.38E-07	3.94E-07	2.53E-07	1.88E-07	1.36E-07	1.03E-07	8.11E-08	6.46E-08
SE	6.78E-06	2.36E-06	1.25E-06	7.97E-07	4.43E-07	2.98E-07	2.12E-07	1.61E-07	1.16E-07	8.84E-08	7.41E-08
SS	2.25E-07	1.31E-08	8.10E-08	1.07E-07	1.83E-07	1.83E-07	1.53E-07	1.20E-07	9.49E-08	7.63E-08	6.51E-08

} GROUND LEVEL
}

SECTION	DISTANCE IN MILES FROM THE SITE										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	6.59E-09	3.02E-09	2.55E-09	1.43E-09	9.63E-09	7.07E-09	5.51E-09	4.46E-09	3.72E-09	3.17E-09	2.75E-09
SS	2.42E-09	5.32E-09	3.58E-09	2.05E-09	1.38E-09	1.02E-09	8.00E-09	6.51E-09	5.45E-09	4.66E-09	4.05E-09
SS	1.68E-07	1.00E-07	6.74E-08	3.92E-08	2.63E-08	1.95E-08	1.52E-08	1.24E-08	1.04E-08	8.91E-09	7.75E-09
SS	3.61E-07	1.58E-07	1.07E-07	6.18E-08	4.20E-08	3.13E-08	2.46E-08	2.01E-08	1.69E-08	1.45E-08	1.26E-08
SS	5.09E-07	3.30E-07	2.08E-07	1.22E-07	8.40E-08	6.30E-08	4.99E-08	4.10E-08	3.46E-08	2.98E-08	2.61E-08
SS	1.27E-06	7.96E-07	4.24E-07	2.51E-07	1.74E-07	1.31E-07	1.04E-07	8.65E-08	7.33E-08	6.34E-08	5.57E-08
SS	1.07E-06	9.42E-07	5.03E-07	2.99E-07	2.08E-07	1.57E-07	1.25E-07	1.03E-07	8.81E-08	7.62E-08	6.70E-08
SS	5.17E-07	2.79E-07	1.82E-07	1.01E-07	7.48E-08	5.64E-08	4.44E-08	3.70E-08	3.13E-08	2.70E-08	2.37E-08
SS	2.16E-07	1.24E-07	8.46E-08	4.93E-08	3.38E-08	2.52E-08	1.99E-08	1.63E-08	1.38E-08	1.18E-08	1.04E-08
NNE	1.40E-07	6.65E-08	4.46E-08	2.56E-08	1.73E-08	1.28E-08	1.00E-08	8.19E-09	6.86E-09	5.86E-09	5.10E-09
NE	9.53E-08	4.81E-08	3.18E-08	1.79E-08	1.19E-08	8.76E-09	6.81E-09	5.50E-09	4.58E-09	3.90E-09	3.38E-09
E	2.23E-09	3.95E-09	2.60E-09	1.40E-09	9.52E-09	6.92E-09	5.34E-09	4.29E-09	3.56E-09	3.02E-09	2.60E-09
E	1.11E-09	3.53E-09	2.31E-09	1.24E-09	8.48E-09	6.18E-09	4.79E-09	3.84E-09	3.19E-09	2.71E-09	2.34E-09
ESE	5.27E-08	2.89E-08	1.89E-08	1.05E-08	6.95E-09	5.06E-09	3.91E-09	3.18E-09	2.61E-09	2.21E-09	1.91E-09
SE	6.33E-08	3.15E-08	2.07E-08	1.14E-08	7.60E-09	5.54E-09	4.26E-09	3.47E-09	2.85E-09	2.42E-09	2.09E-09
SS	5.83E-09	3.18E-09	2.11E-09	1.19E-09	8.02E-09	5.90E-09	4.60E-09	3.73E-09	3.11E-09	2.65E-09	2.30E-09

} GROUND LEVEL
}

WIND AND BUILDING PARAMETERS

RELEASE HEIGHT (METERS)	16.00	REP. WIND HEIGHT (METERS)	10.7
WIND SPEED (METERS/SEC)	1.10	BUILDING HEIGHT (METERS)	46.0
EXT. VELOCITY (METERS/SEC)	31.00	BLDG. MIN. CHS. SEC. AREA (SQ. METERS)	1600.0
		HEAT EMISSION RATE (CAL/SEC)	0.0

AT THE RELEASE HEIGHT			AT THE MEASURED WIND HEIGHT (10.7 METERS)		
WIND RELEASE MODE	WIND SPEED (METERS/SEC)	STABLE CONDITIONS	WIND RELEASE MODE	WIND SPEED (METERS/SEC)	UNSTABLE/NEUTRAL CONDITIONS
ELEVATED	LESS THAN 6.200	1	ELEVATED	LESS THAN 6.200	1
MEAS.	BETWEEN 6.200 AND 31.000	1	MEAS.	BETWEEN 6.200 AND 31.000	1
GROUND LEVEL	ABOVE 31.000	1	GROUND LEVEL	ABOVE 31.000	1

RESEARCH VESSEL, ON 1977 TOWN MAP 1 JET PROP CATALAN, 25175S HT=10.7 DELTA T=T-L

CONTACT: U.S. DEPARTMENT OF COMMERCE, COMMERCE RELEASE
NO. 10000, 100000000

CHINA, 1962-1977, DATA FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.254E-08	1.207E-07	1.209E-07	1.025E-07	7.540E-08	3.873E-08	1.475E-08	7.132E-09	4.482E-09	3.181E-09
SSW	6.869E-08	1.211E-07	1.355E-07	1.237E-07	1.013E-07	5.345E-08	2.096E-08	1.030E-08	6.538E-09	4.674E-09
SW	7.691E-08	2.300E-07	2.692E-07	2.207E-07	1.928E-07	1.010E-07	3.977E-08	1.964E-08	1.248E-08	8.931E-09
WSW	5.927E-07	9.711E-07	1.029E-06	6.611E-07	9.351E-07	1.804E-07	6.308E-08	3.151E-08	2.019E-08	1.454E-08
W	1.125E-07	9.257E-07	5.212E-07	5.072E-07	5.535E-07	3.293E-07	1.244E-07	6.340E-08	4.111E-08	2.987E-08
WNW	7.523E-08	1.168E-07	9.680E-07	1.347E-06	1.324E-06	7.224E-07	2.560E-07	1.325E-07	8.677E-08	6.350E-08
W	2.307E-08	5.510E-07	1.143E-06	1.971E-06	2.207E-06	9.760E-07	3.043E-07	1.583E-07	1.041E-07	7.638E-08
WN	9.423E-08	3.260E-07	6.232E-07	7.356E-07	6.646E-07	3.050E-07	1.099E-07	5.672E-08	3.710E-08	2.712E-08
W	9.824E-08	3.430E-07	5.670E-07	4.056E-07	2.635E-07	1.273E-07	5.028E-08	2.544E-08	1.643E-08	1.191E-08
NNE	2.644E-06	8.822E-07	3.889E-07	2.343E-07	1.637E-07	7.329E-08	2.617E-08	1.293E-08	8.219E-09	5.888E-09
NE	1.857E-06	6.941E-07	3.419E-07	1.916E-07	1.168E-07	5.140E-08	1.836E-08	8.837E-09	5.539E-09	3.913E-09
ENE	3.075E-07	3.350E-07	2.633E-07	1.873E-07	1.209E-07	4.542E-08	1.482E-08	6.985E-09	4.316E-09	3.027E-09
E	2.504E-07	2.510E-07	1.658E-07	1.207E-07	8.200E-08	3.769E-08	1.318E-08	6.236E-09	3.865E-09	2.718E-09
ESE	1.241E-06	4.085E-07	1.826E-07	1.045E-07	6.515E-08	2.979E-08	1.081E-08	5.187E-09	3.161E-09	2.219E-09
SE	1.299E-06	4.683E-07	2.152E-07	1.188E-07	7.438E-08	3.380E-08	1.181E-08	5.589E-09	3.461E-09	2.431E-09
SSE	9.423E-08	1.661E-07	1.981E-07	9.502E-08	6.519E-08	3.253E-08	1.224E-08	5.947E-09	3.744E-09	2.662E-09

} GROUND LEVEL
}

AVERAGE EFFECTIVE STACK HEIGHT IN METERS FOR EACH SEGMENT

DIRECTION FROM SITE	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.453E+01	6.415E+01	6.096E+01	4.231E+01	2.925E+01	1.009E+01	3.653E+00	2.591E+00	1.397E+00	9.726E-01
SSW	1.006E+02	8.454E+01	7.518E+01	6.212E+01	4.706E+01	1.732E+01	8.800E+00	8.460E+00	6.639E+00	5.664E+00
SW	1.065E+02	9.281E+01	7.919E+01	6.587E+01	4.867E+01	2.169E+01	1.243E+01	1.122E+01	1.086E+01	1.086E+01
WSW	2.249E+01	5.581E+01	2.723E+01	1.581E+01	1.029E+01	6.506E+00	5.596E+00	5.224E+00	5.014E+00	4.993E+00
W	9.139E+01	2.087E+01	7.067E+01	6.140E+01	4.924E+01	1.904E+01	5.262E+00	4.514E+00	4.514E+00	4.514E+00
WNW	8.258E+01	7.234E+01	5.435E+01	4.740E+01	3.877E+01	1.238E+01	2.619E+00	2.215E+00	2.215E+00	2.215E+00
W	7.534E+01	6.374E+01	5.300E+01	3.799E+01	2.144E+01	7.687E+00	3.482E+00	2.974E+00	2.974E+00	2.974E+00
WN	7.930E+01	6.240E+01	4.510E+01	3.169E+01	1.627E+01	5.000E+00	2.891E+00	2.681E+00	2.622E+00	2.622E+00
W	7.851E+01	5.230E+01	2.812E+01	1.311E+01	8.361E+00	4.823E+00	3.922E+00	3.798E+00	3.743E+00	3.294E+00
NNE	6.330E+01	4.460E+01	2.327E+01	9.175E+00	4.312E+00	1.648E+00	1.095E+00	1.060E+00	1.012E+00	7.406E-01
NE	4.008E+01	3.503E+01	2.004E+01	8.739E+00	3.350E+00	1.654E+00	1.091E+00	6.933E-01	4.664E-01	3.966E-01
ENE	5.431E+01	5.133E+01	3.424E+01	1.788E+01	8.669E+00	2.660E+00	5.193E-01	3.552E-01	3.168E-01	3.101E-01
E	7.165E+01	5.188E+01	2.757E+01	1.335E+01	5.397E+00	1.678E+00	1.077E+00	8.948E-01	7.954E-01	5.942E-01
ESE	2.041E+01	6.460E+01	2.592E+01	2.144E+01	7.754E+00	2.223E+00	1.106E+00	9.785E-01	8.866E-01	7.221E-01
SE	2.531E+01	7.394E+01	6.343E+01	5.108E+01	3.789E+01	1.672E+01	2.729E+00	1.244E+00	1.051E+00	7.359E-01
SSE	8.230E+01	6.217E+01	3.963E+01	2.361E+01	1.402E+01	5.541E+00	3.185E+00	1.658E+00	1.175E+00	1.111E+00

FOR NNE, NE, ESE, SE
USE GROUND LEVEL

HEAVY VALLEY, 45 1977 FROM 1961 1.160 LTR CALOR=25075 HI=10.70 DELTA T=1-L

CONCENTRATIONS RELEASED FROM CONTAMINANT RELEASE
2,260 GPM OF GAS, UNCORRECTED
CORRECTED USING SITE-SPECIFIC FACTORS

SECTION	DISTANCE IN MILES FROM THE SITE										
	1.250	1.500	1.750	2.000	2.250	2.500	2.750	3.000	3.250	3.500	3.750
S	2.774E-07	1.456E-07	8.259E-08	1.000E-07	1.303E-07	1.326E-07	1.293E-07	1.189E-07	1.007E-07	8.452E-08	7.269E-08
SS	1.229E-07	5.151E-08	5.243E-08	9.877E-08	1.294E-07	1.345E-07	1.352E-07	1.295E-07	1.212E-07	1.118E-07	9.802E-08
SX	1.723E-08	1.045E-08	5.449E-09	1.111E-07	2.306E-07	3.017E-07	2.715E-07	2.304E-07	2.226E-07	2.122E-07	1.858E-07
NSX	1.131E-07	5.714E-08	2.224E-07	9.763E-07	9.211E-07	1.215E-06	1.047E-06	8.123E-07	6.287E-07	5.047E-07	4.101E-07
X	1.401E-07	6.163E-08	6.728E-08	1.689E-07	4.110E-07	5.467E-07	5.177E-07	4.671E-07	4.799E-07	5.009E-07	5.252E-07
NSX	1.054E-07	1.947E-08	4.582E-08	1.081E-07	3.214E-07	6.176E-07	9.456E-07	1.136E-06	1.294E-06	1.382E-06	1.250E-06
NSX	1.107E-07	1.604E-08	5.214E-08	1.057E-07	4.760E-07	7.877E-07	1.074E-06	1.352E-06	1.835E-06	2.334E-06	2.128E-06
NSX	1.106E-08	5.179E-08	2.966E-08	6.772E-08	2.816E-07	4.766E-07	6.094E-07	6.950E-07	7.199E-07	7.148E-07	6.090E-07
NSX	1.336E-07	5.522E-08	7.132E-08	1.390E-07	3.109E-07	5.498E-07	6.247E-07	5.051E-07	3.931E-07	3.137E-07	2.527E-07
NSX	2.132E-07	1.162E-07	2.684E-07	3.028E-07	4.309E-07	3.962E-07	3.452E-07	2.833E-07	2.299E-07	1.903E-07	1.607E-07
NSX	1.544E-07	1.041E-07	2.756E-07	3.083E-07	3.837E-07	3.552E-07	2.961E-07	2.421E-07	1.813E-07	1.394E-07	1.121E-07
ESE	9.425E-07	2.564E-07	3.043E-07	3.343E-07	3.575E-07	3.152E-07	2.635E-07	2.232E-07	1.861E-07	1.552E-07	1.173E-07
F	1.169E-07	2.197E-07	2.755E-07	2.755E-07	2.639E-07	2.259E-07	1.888E-07	1.515E-07	1.181E-07	9.466E-08	8.003E-08
ESE	2.207E-07	1.079E-07	1.152E-07	1.396E-07	1.565E-07	1.459E-07	1.275E-07	1.145E-07	9.438E-08	7.650E-08	6.177E-08
SE	1.772E-07	9.474E-08	1.016E-07	1.782E-07	1.516E-07	1.430E-07	1.249E-07	1.083E-07	8.692E-08	7.102E-08	6.292E-08
SE	2.260E-07	9.297E-08	9.082E-08	1.043E-07	1.823E-07	1.814E-07	1.504E-07	1.176E-07	9.239E-08	7.392E-08	6.279E-08

SECTION	DISTANCE IN MILES FROM THE SITE										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	6.413E-08	3.587E-08	2.344E-08	1.267E-08	8.147E-09	5.754E-09	4.311E-09	3.365E-09	2.705E-09	2.225E-09	1.861E-09
SS	1.174E-08	4.984E-08	3.253E-08	1.772E-08	1.143E-08	8.078E-09	6.051E-09	4.719E-09	3.789E-09	3.110E-09	2.598E-09
SX	1.593E-07	9.211E-08	6.076E-08	3.303E-08	2.122E-08	1.494E-08	1.114E-08	8.648E-09	6.911E-09	5.649E-09	4.700E-09
NSX	3.404E-07	1.452E-07	2.507E-08	5.192E-08	3.349E-08	2.365E-08	1.768E-08	1.375E-08	1.101E-08	9.015E-09	7.511E-09
X	5.416E-07	2.940E-07	1.791E-07	2.788E-08	6.285E-08	4.411E-08	3.276E-08	2.529E-08	2.010E-08	1.672E-08	1.349E-08
NSX	1.124E-06	7.057E-07	3.620E-07	1.791E-07	1.284E-07	9.034E-08	6.718E-08	5.190E-08	4.124E-08	3.348E-08	2.765E-08
NSX	1.408E-06	5.486E-07	4.379E-07	2.441E-07	1.593E-07	1.134E-07	8.515E-08	6.640E-08	5.323E-08	4.358E-08	3.628E-08
NSX	5.575E-07	2.575E-07	1.692E-07	9.233E-08	6.089E-08	4.378E-08	3.324E-08	2.621E-08	2.123E-08	1.757E-08	1.478E-08
NSX	2.003E-07	1.176E-07	7.824E-08	4.395E-08	2.905E-08	2.097E-08	1.601E-08	1.269E-08	1.035E-08	8.623E-09	7.305E-09
NSX	1.544E-07	8.383E-08	1.197E-08	2.320E-08	1.719E-08	1.090E-08	8.274E-09	6.585E-09	5.327E-09	4.433E-09	3.753E-09
NSX	9.212E-08	4.584E-08	2.002E-08	1.039E-08	1.068E-08	7.643E-09	5.842E-09	4.585E-09	3.733E-09	3.148E-09	2.634E-09
ESE	2.113E-08	3.840E-08	2.099E-08	1.355E-08	8.775E-09	6.293E-09	4.733E-09	3.734E-09	3.037E-09	2.527E-09	2.142E-09
F	6.363E-08	3.343E-08	2.192E-08	1.183E-08	7.034E-09	5.420E-09	4.086E-09	3.211E-09	2.601E-09	2.156E-09	1.821E-09
ESE	6.254E-08	2.751E-08	1.774E-08	9.549E-09	6.144E-09	4.351E-09	3.272E-09	2.566E-09	2.073E-09	1.715E-09	1.445E-09
SE	5.504E-08	2.933E-08	1.708E-08	1.120E-08	6.087E-09	4.168E-09	3.503E-09	2.739E-09	2.209E-09	1.823E-09	1.532E-09
SE	5.912E-08	2.995E-08	1.746E-08	1.055E-08	6.814E-09	4.820E-09	3.616E-09	2.824E-09	2.272E-09	1.870E-09	1.567E-09

VENT AND BUILDING PARAMETERS

RELEASE HEIGHT (METERS)	16.00	REF. WIND HEIGHT (METERS)	10.7
DIAMETER (METERS)	1.19	BUILDING HEIGHT (METERS)	96.0
EXIT VELOCITY (METERS)	31.00	BLDG. MIN. CRS. SEC. AREA (SQ. METERS)	1600.0
		HEAT EMISSION RATE (CAL/SEC)	0.0

AT THE RELEASE HEIGHT		AT THE MEASURED WIND HEIGHT (10.7 METERS)	
VENT RELEASE MODE	WIND SPEED (METERS/SEC)	VENT RELEASE MODE	WIND SPEED (METERS/SEC)
ELEVATED	LESS THAN 6.200	ELEVATED	LESS THAN 6.200
FIXED	BEHIND 6.200 AND 31.000	FIXED	BETWEEN 6.200 AND 31.000
GROUND LEVEL	ABOVE 31.000	GROUND LEVEL	ABOVE 31.000

FOR NNE, NE, ESE, SE

BEAVER VALLEY, VA 1977 TOG 1941 1.350 1000 CAL=250000 H=10.7M DELTA T=1-L

USE GROUND LEVEL

CONTAINER TYPE: 100L FIXED RATE CONTINUOUS RELEASE

WIND DECAY: COMPLETE

CONNECTED TO THE SITE-SPECIFIC FACTORS

ANNUAL AVERAGE CHZ (SECT/METER CUMED)	DISTANCE IN MILES FROM THE SITE										
	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.773E-07	1.042E-07	8.120E-08	1.027E-07	1.290E-07	1.313E-07	1.281E-07	1.178E-07	9.965E-08	8.316E-08	7.104E-08
SSW	1.229E-07	5.049E-08	5.193E-08	4.400E-08	1.294E-07	1.347E-07	1.357E-07	1.301E-07	1.221E-07	1.126E-07	9.844E-08
SW	4.729E-08	1.013E-08	5.419E-08	1.110E-07	2.315E-07	3.036E-07	2.739E-07	2.330E-07	2.258E-07	2.154E-07	1.800E-07
WSW	1.100E-07	6.671E-08	2.229E-07	4.777E-07	9.279E-07	1.230E-06	1.048E-06	8.040E-07	6.160E-07	4.901E-07	3.951E-07
W	1.702E-07	6.117E-08	6.874E-08	1.689E-07	4.144E-07	5.543E-07	5.277E-07	4.785E-07	4.941E-07	5.177E-07	5.441E-07
WSW	1.060E-07	4.914E-08	4.643E-08	1.083E-07	3.248E-07	6.282E-07	9.673E-07	1.169E-06	1.338E-06	1.434E-06	1.300E-06
SW	1.107E-07	4.574E-08	5.183E-08	1.461E-07	4.809E-07	7.996E-07	1.095E-06	1.385E-06	1.889E-06	2.411E-06	2.197E-06
WSW	4.410E-08	3.155E-08	2.943E-08	6.977E-08	2.438E-07	4.822E-07	6.188E-07	7.084E-07	7.365E-07	7.312E-07	6.606E-07
W	1.344E-07	5.462E-08	7.081E-08	1.388E-07	3.117E-07	5.533E-07	6.282E-07	5.029E-07	3.874E-07	3.061E-07	2.443E-07
WSW	2.397E-07	1.343E-07	2.071E-07	3.909E-07	4.370E-07	3.946E-07	3.425E-07	2.783E-07	2.235E-07	1.831E-07	1.531E-07
SW	1.419E-07	1.053E-07	2.720E-07	1.159E-07	3.729E-07	3.405E-07	2.863E-07	2.320E-07	1.718E-07	1.307E-07	1.041E-07
WSW	4.495E-07	2.527E-07	3.003E-07	3.277E-07	3.477E-07	3.042E-07	2.525E-07	2.126E-07	1.758E-07	1.452E-07	1.086E-07
W	4.153E-07	2.187E-07	2.443E-07	2.709E-07	2.574E-07	2.191E-07	1.820E-07	1.448E-07	1.119E-07	8.680E-08	7.439E-08
WSW	2.363E-07	1.062E-07	1.156E-07	1.375E-07	1.534E-07	1.414E-07	1.237E-07	1.107E-07	9.066E-08	7.282E-08	5.825E-08
SW	1.770E-07	4.081E-08	1.002E-07	1.284E-07	1.487E-07	1.396E-07	1.213E-07	1.047E-07	8.380E-08	6.824E-08	6.024E-08
SSW	2.258E-07	2.174E-08	7.960E-08	1.031E-07	1.808E-07	1.797E-07	1.487E-07	1.154E-07	8.985E-08	7.129E-08	6.006E-08

ANNUAL AVERAGE CHZ (SECT/METER CUMED)	DISTANCE IN MILES FROM THE SITE										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	4.138E-08	3.393E-08	2.170E-08	1.139E-08	7.184E-09	5.008E-09	3.718E-09	2.883E-09	2.307E-09	1.890E-09	1.578E-09
SSW	4.475E-08	4.220E-08	3.119E-08	1.661E-08	1.058E-08	7.418E-09	5.533E-09	4.308E-09	3.459E-09	2.844E-09	2.382E-09
SW	1.605E-07	9.076E-08	5.488E-08	3.140E-08	1.997E-08	1.402E-08	1.045E-08	8.126E-09	6.517E-09	5.353E-09	4.479E-09
WSW	3.256E-07	1.356E-07	8.718E-08	4.659E-08	2.971E-08	2.086E-08	1.556E-08	1.211E-08	9.713E-09	7.978E-09	6.674E-09
W	5.516E-07	3.006E-07	1.834E-07	9.950E-08	6.411E-08	4.533E-08	3.400E-08	2.656E-08	2.138E-08	1.761E-08	1.477E-08
WSW	1.170E-06	7.359E-07	3.747E-07	2.053E-07	1.332E-07	9.467E-08	7.133E-08	5.593E-08	4.516E-08	3.728E-08	3.133E-08
SW	1.703E-06	3.626E-07	4.400E-07	2.426E-07	1.582E-07	1.130E-07	8.546E-08	6.727E-08	5.451E-08	4.516E-08	3.808E-08
WSW	5.449E-07	2.542E-07	1.547E-07	4.786E-08	5.727E-08	4.094E-08	3.101E-08	2.446E-08	1.986E-08	1.649E-08	1.394E-08
W	1.997E-07	1.093E-07	7.103E-08	3.858E-08	2.492E-08	1.770E-08	1.335E-08	1.048E-08	8.489E-09	7.033E-09	5.934E-09
WSW	1.103E-07	5.435E-08	1.736E-08	1.087E-08	1.266E-08	8.895E-09	6.649E-09	5.107E-09	4.175E-09	3.442E-09	2.891E-09
SW	4.474E-08	4.071E-08	2.470E-08	1.352E-08	8.829E-09	5.494E-09	4.423E-09	3.434E-09	2.753E-09	2.262E-09	1.894E-09
WSW	4.364E-08	3.401E-08	2.147E-08	1.112E-08	6.951E-09	4.815E-09	3.560E-09	2.753E-09	2.199E-09	1.802E-09	1.505E-09
W	6.329E-08	3.819E-08	1.895E-08	9.802E-09	6.124E-09	4.245E-09	3.136E-09	2.423E-09	1.934E-09	1.583E-09	1.321E-09
WSW	4.729E-08	2.441E-08	1.549E-08	8.058E-09	5.032E-09	3.482E-09	2.571E-09	1.985E-09	1.583E-09	1.295E-09	1.040E-09
SW	4.324E-08	2.777E-08	1.724E-08	9.014E-09	5.883E-09	3.918E-09	2.898E-09	2.233E-09	1.782E-09	1.459E-09	1.217E-09
SSW	5.137E-08	2.761E-08	1.754E-08	9.223E-09	5.834E-09	4.068E-09	3.021E-09	2.341E-09	1.873E-09	1.535E-09	1.282E-09

VENT AND DILUTION PARAMETERS

RELEASE HEIGHT (METERS)	46.00	REF. WIND HEIGHT (METERS)	10.7
VENT TYPE (METERS)	1.10	BUILDING HEIGHT (METERS)	46.0
EXIT VELOCITY (METERS)	31.00	WIND, MIN, CRS, SEC, AREA (SQ. METERS)	1600.0
		HEAT EMISSION RATE (CAL/SEC)	0.0

AT THE RELEASE HEIGHT:

VENT RELEASE MODE	1	WIND SPEED (METERS/SEC)	1
ELEVATED	1	LESS THAN 6.200	1
MIXED	1	BETWEEN 6.200 AND 31.000	1
GROUND LEVEL	1	ABOVE 31.000	1

AT THE MEASURED WIND HEIGHT (10.7 METERS):

VENT RELEASE MODE	1	WIND SPEED (METERS/SEC)	1
ELEVATED	1	LESS THAN 6.200	1
MIXED	1	BETWEEN 6.200 AND 31.000	1
GROUND LEVEL	1	ABOVE 31.000	1

WIND SPEED (METERS/SEC)	UNSTABLE/NEUTRAL CONDITIONS
LESS THAN 6.200	LESS THAN 6.200
BETWEEN 6.200 AND 31.000	BETWEEN 6.200 AND 31.000
ABOVE 31.000	ABOVE 31.000

USPC TO PUFY C01-00000, V1, S1, 2, 0

DATE 5-JUN-88

PUN TIME 10138198

HEADW VALLEY, PA 1777 T000 1981 1 JED TIED CAL= .25/25 HT=10.70 DELTA T=1-L

CONTAINMENT FAILURE: FIXED RATE CONTINUOUS RELEASE
 8,000 GAY PALLY, DEPLETED

CHTAN (SEGMENTED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.590E-08	1.242E-07	1.242E-07	9.456E-08	7.102E-08	3.458E-08	1.181E-08	5.072E-09	2.902E-09	1.898E-09
SSW	6.793E-08	1.226E-07	1.332E-07	1.207E-07	9.757E-08	8.879E-08	1.717E-08	7.506E-09	4.335E-09	2.855E-09
SW	7.630E-08	2.388E-07	2.655E-07	7.239E-07	1.859E-07	9.208E-08	3.243E-08	1.418E-08	8.174E-09	5.374E-09
WSW	3.013E-07	9.522E-07	9.978E-07	6.217E-07	3.975E-07	1.563E-07	4.811E-08	2.110E-08	1.218E-08	8.009E-09
W	1.116E-07	4.220E-07	5.151E-07	4.986E-07	5.391E-07	3.056E-07	1.024E-07	4.580E-08	2.672E-08	1.768E-08
WNW	7.450E-08	4.115E-07	9.575E-07	1.326E-06	1.272E-06	6.718E-07	2.109E-07	9.560E-08	5.622E-08	3.741E-08
W	9.239E-08	5.881E-07	1.132E-06	1.944E-06	2.151E-06	9.059E-07	2.489E-07	1.140E-07	6.760E-08	4.531E-08
WNW	8.743E-08	3.204E-07	6.142E-07	7.264E-07	6.459E-07	2.814E-07	9.023E-08	4.132E-08	2.458E-08	1.655E-08
W	9.763E-08	3.807E-07	5.581E-07	3.894E-07	2.461E-07	1.124E-07	3.972E-08	1.789E-08	1.054E-08	7.058E-09
WNW	2.826E-07	4.841E-07	3.347E-07	2.237E-07	1.535E-07	6.501E-08	2.055E-08	9.004E-09	5.219E-09	3.455E-09
W	2.630E-07	3.521E-07	2.801E-07	1.733E-07	1.048E-07	4.385E-08	1.402E-08	6.027E-09	3.457E-09	2.271E-09
ENE	3.019E-07	3.234E-07	2.503E-07	1.746E-07	1.102E-07	3.947E-08	1.157E-08	4.883E-09	2.773E-09	1.810E-09
E	2.500E-07	2.434E-07	1.770E-07	1.125E-07	7.452E-08	3.253E-08	1.020E-08	4.304E-09	2.440E-09	1.590E-09
ESE	4.226E-07	1.446E-07	1.232E-07	8.959E-08	5.851E-08	2.573E-08	8.387E-09	3.531E-09	1.949E-09	1.301E-09
SE	4.603E-07	1.497E-07	1.196E-07	8.385E-08	6.004E-08	2.843E-08	7.347E-09	3.964E-09	2.249E-09	1.465E-09
SSE	9.273E-08	1.630E-07	1.834E-07	9.008E-08	6.017E-08	2.841E-08	9.565E-09	4.120E-09	2.357E-09	1.541E-09

For NNE, NE, ESE, SE
 USE GROUND LEVEL

Far NNE, NE, ESE, SE

USE GROUND LEVEL

REARER VALLEY, CA 1977 FROM 1981 1 HJ 100 CAL# 20025 HI=10.73 DELTA T=1-L

CONTAINS A LIMITED NUMBER OF CONTINUOUS RELEASE
CORRECTED USING SITE-SPECIFIC FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (MG/M²) AT FIXED POINTS BY DOWNWIND SECTORS *****

DIRECTION FROM SITE

	0.25	0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	3.550E-02	3.112E-02	1.929E-02	1.332E-02	7.496E-10	5.129E-10	3.807E-10	3.030E-10	2.661E-10	2.345E-10	1.967E-10
SSW	1.534E-09	1.279E-09	4.915E-10	6.903E-10	4.187E-10	2.724E-10	2.040E-10	1.618E-10	1.411E-10	1.372E-10	1.417E-10
SW	1.069E-09	9.214E-10	7.301E-10	6.156E-10	4.769E-10	3.702E-10	2.599E-10	1.955E-10	1.751E-10	2.152E-10	2.184E-10
SSW	1.612E-09	1.237E-09	1.151E-09	9.307E-10	6.296E-10	1.268E-09	1.150E-09	8.419E-10	6.408E-10	4.964E-10	3.865E-10
S	1.796E-07	1.364E-07	1.114E-09	8.666E-10	5.264E-10	3.932E-10	2.417E-10	1.675E-10	1.588E-10	1.549E-10	1.591E-10
SSW	1.231E-07	9.202E-10	7.111E-10	5.343E-10	3.041E-10	2.067E-10	1.621E-10	1.570E-10	1.908E-10	2.128E-10	2.091E-10
SW	1.235E-07	9.193E-10	6.966E-10	5.187E-10	3.019E-10	2.189E-10	1.843E-10	1.961E-10	2.253E-10	2.970E-10	7.662E-10
SSW	2.321E-10	6.830E-10	4.244E-10	3.640E-10	2.097E-10	1.601E-10	1.275E-10	1.150E-10	1.171E-10	3.662E-10	3.795E-10
S	1.633E-09	1.405E-09	9.273E-10	6.801E-10	4.374E-10	3.087E-10	7.829E-10	6.719E-10	4.943E-10	3.846E-10	2.962E-10
SSW	5.236E-09	3.641E-09	2.384E-09	2.070E-09	1.069E-09	7.262E-10	9.532E-10	7.849E-10	6.063E-10	4.906E-10	3.971E-10
SW	7.334E-09	6.157E-09	4.213E-09	2.999E-09	2.190E-09	1.573E-09	1.486E-09	1.154E-09	8.728E-10	6.579E-10	5.089E-10
SSW	7.567E-09	6.365E-09	5.663E-09	4.315E-09	3.165E-09	2.108E-09	1.612E-09	1.300E-09	1.153E-09	9.898E-10	7.195E-10
SW	2.714E-09	7.257E-09	4.884E-09	3.643E-09	2.256E-09	1.424E-09	1.159E-09	8.814E-10	6.939E-10	5.301E-10	4.436E-10
ESE	7.154E-09	3.892E-09	2.413E-09	1.797E-09	1.164E-09	7.999E-10	5.903E-10	5.109E-10	4.397E-10	3.375E-10	2.734E-10
SE	3.177E-09	3.034E-09	2.124E-09	1.606E-09	1.025E-09	7.773E-10	5.698E-10	4.261E-10	3.163E-10	2.406E-10	2.165E-10
SSW	3.119E-09	2.620E-09	1.719E-09	1.243E-09	8.168E-10	5.996E-10	4.718E-10	3.748E-10	2.743E-10	2.273E-10	1.842E-10

DIRECTION FROM SITE

	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	1.659E-10	7.267E-11	5.941E-11	3.002E-11	1.817E-11	1.220E-11	8.744E-12	6.624E-12	5.150E-12	4.114E-12	3.359E-12
SSW	1.245E-10	7.019E-11	3.102E-11	2.227E-11	1.345E-11	9.418E-12	6.758E-12	5.081E-12	3.958E-12	3.166E-12	2.587E-12
SW	1.915E-10	1.001E-10	6.525E-11	3.274E-11	1.996E-11	1.340E-11	9.622E-12	7.239E-12	5.638E-12	4.512E-12	3.689E-12
SSW	3.162E-10	1.194E-10	7.481E-11	3.780E-11	2.290E-11	1.538E-11	1.103E-11	8.299E-12	6.461E-12	5.169E-12	4.225E-12
S	1.732E-10	1.478E-10	8.516E-11	4.499E-11	2.724E-11	1.828E-11	1.310E-11	9.845E-12	7.658E-12	6.120E-12	4.997E-12
SSW	2.076E-10	2.531E-10	1.149E-10	5.815E-11	3.533E-11	2.369E-11	1.699E-11	1.276E-11	9.920E-12	7.926E-12	6.471E-12
S	7.210E-10	2.303E-10	1.365E-10	6.979E-11	4.225E-11	2.834E-11	2.031E-11	1.526E-11	1.187E-11	9.484E-12	7.744E-12
SSW	3.105E-10	1.270E-10	7.680E-11	3.890E-11	2.349E-11	1.576E-11	1.127E-11	8.484E-12	6.600E-12	5.274E-12	4.307E-12
S	2.900E-10	1.172E-10	7.460E-11	3.770E-11	2.283E-11	1.532E-11	1.093E-11	8.250E-12	6.418E-12	5.130E-12	4.190E-12
SSW	4.334E-10	1.372E-10	4.908E-11	4.351E-11	2.634E-11	1.767E-11	1.266E-11	9.511E-12	7.396E-12	5.918E-12	4.931E-12
SW	7.044E-10	1.893E-10	1.143E-10	5.779E-11	3.519E-11	2.359E-11	1.693E-11	1.271E-11	9.885E-12	7.897E-12	6.406E-12
SSW	5.416E-10	2.096E-10	1.330E-10	6.764E-11	4.101E-11	2.750E-11	1.971E-11	1.480E-11	1.151E-11	9.191E-12	7.502E-12
SW	4.570E-10	1.670E-10	1.047E-10	5.322E-11	3.222E-11	2.160E-11	1.548E-11	1.163E-11	9.044E-12	7.236E-12	5.907E-12
ESE	2.164E-10	1.099E-10	6.462E-11	3.519E-11	2.127E-11	1.427E-11	1.023E-11	7.681E-12	5.974E-12	4.774E-12	3.890E-12
SE	1.116E-10	4.891E-11	6.491E-11	3.954E-11	2.091E-11	1.403E-11	1.006E-11	7.555E-12	5.876E-12	4.742E-12	3.834E-12
SSW	1.525E-10	7.465E-11	4.227E-11	2.490E-11	1.539E-11	1.032E-11	7.435E-12	5.584E-12	4.341E-12	3.465E-12	2.831E-12

REARER VALLEY, PL 1917 TO 0.1001 : 10.7 METER WIND HEIGHT = 25% ZS DT=10.7M DELTA T=1-L

CONTINUED AT RELEASE MODE FROM CONTINUOUS RELEASE

***** RELATIVE DEPOSITION PER UNIT AREA (MG/M²) BY DOWNWIND SECTORS *****

SECTOR BOUNDARIES IN MILES

DIRECTION FROM SITE	0-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.701E-02	7.709E-10	3.497E-10	2.665E-10	1.979E-10	9.413E-11	3.124E-11	1.241E-11	6.668E-12	4.141E-12
SSW	5.402E-10	4.141E-10	2.054E-10	1.456E-10	1.340E-10	7.061E-11	2.316E-11	9.430E-12	5.132E-12	3.186E-12
SW	7.218E-10	3.603E-10	2.686E-10	1.962E-10	2.034E-10	1.027E-10	3.435E-11	1.364E-11	7.310E-12	4.541E-12
WSW	1.070E-09	2.411E-10	1.059E-09	6.438E-10	3.730E-10	1.433E-10	3.940E-11	1.565E-11	8.360E-12	5.202E-12
W	1.961E-09	5.422E-10	2.524E-10	1.526E-10	1.631E-10	1.269E-10	4.670E-11	1.860E-11	9.943E-12	6.160E-12
WNW	6.790E-10	3.120E-10	1.719E-10	1.095E-10	2.096E-10	1.749E-10	6.069E-11	2.411E-11	1.288E-11	7.978E-12
W	5.070E-10	3.132E-10	1.282E-10	2.443E-10	6.104E-10	3.145E-10	7.237E-11	2.884E-11	1.541E-11	9.546E-12
WNW	4.784E-10	2.219E-10	1.312E-10	2.114E-10	3.500E-10	1.455E-10	4.044E-11	1.603E-11	8.569E-12	5.309E-12
W	2.235E-10	4.301E-10	6.120E-10	5.032E-10	3.016E-10	1.254E-10	3.929E-11	1.559E-11	8.332E-12	5.163E-12
WNW	2.519E-09	1.137E-09	4.234E-10	6.133E-10	4.015E-10	1.982E-10	8.534E-11	1.790E-11	9.606E-12	5.953E-12
NE	4.101E-09	2.602E-09	1.376E-09	2.712E-10	5.169E-10	2.025E-10	8.031E-11	2.402E-11	1.284E-11	7.949E-12
ENE →	5.665E-09	2.951E-09	1.620E-09	1.133E-09	7.337E-10	2.498E-10	7.051E-11	2.799E-11	1.495E-11	9.251E-12
E	4.860E-09	2.176E-09	1.120E-09	6.851E-10	4.409E-10	1.837E-10	5.532E-11	2.199E-11	1.175E-11	7.200E-12
ESE	2.405E-09	1.143E-09	6.144E-10	4.211E-10	2.713E-10	1.153E-10	3.646E-11	1.452E-11	7.758E-12	4.805E-12
SE	2.896E-09	1.444E-09	5.655E-10	3.194E-10	2.144E-10	1.037E-10	3.523E-11	1.427E-11	7.630E-12	4.730E-12
SSE	1.721E-09	4.192E-10	4.671E-10	2.451E-10	1.852E-10	8.201E-11	2.609E-11	1.052E-11	5.639E-12	3.491E-12

VENT AND BUILDING PARAMETERS:

RELEASE HEIGHT (METERS)	46.00	REP. WIND HEIGHT (METERS)	10.7
DIAMETER (METERS)	1.10	BUILDING HEIGHT (METERS)	46.0
EXIT VELOCITY (METERS)	31.00	BLDG. MIN. CRS. SEC. AREA (SQ. METERS)	1600.0
		HEAT EMISSION RATE (CAL/SEC)	0.0

AT THE RELEASE HEIGHTS:

VENT RELEASE MODE	WIND SPEED (METERS/SEC)
ELEVATED	LESS THAN 6.200
MIXED	BETWEEN 6.200 AND 31.000
GROUND LEVEL	ABOVE 31.000

AT THE MEASURED WIND HEIGHT (10.7 METERS):

VENT RELEASE MODE	WIND SPEED (METERS/SEC)	WIND SPEED (METERS/SEC)
ELEVATED	LESS THAN 6.200	UNSTABLE/NEUTRAL CONDITIONS
MIXED	BETWEEN 6.200 AND 31.000	LESS THAN 6.200
GROUND LEVEL	ABOVE 31.000	BETWEEN 6.200 AND 31.000
		ABOVE 31.000

BEAVER VALLEY, PA 1977 1000 1231 1 JER 1000 0.0000 200/25 HI=10.74 DELTA T=1-L

CONTAINMENT PREDICTIONS: MIXED MODE CONTINUOUS RELEASE
CORRECTED FOR SITE-SPECIFIC FACTORS
SPECIFIC POINTS OF INTEREST

RELEASE TO	TYPE OF LOCATION	DIRECTION FROM SITE	DISTANCE (MILES)	DISTANCE (METERS)	X/D		Y/D		Z/D			
					(SEC/CUB. METER)		(SEC/CUB. METER)		(SEC/CUB. METER)		(PER SQ. METER)	
					NO DECAY UNDEPLETED	2,260 DAY DECAY UNDEPLETED	8,000 DAY DECAY UNDEPLETED	NO DECAY DEPLETED	2,260 DAY DECAY DEPLETED	8,000 DAY DECAY DEPLETED		
A	FIRST PLANT WINDY	S	0.47	790.	9.5E-08	9.5E-08	9.5E-08	9.5E-08	3.2E-09			
A	FIRST PLANT WINDY	SS+	0.62	1000.	4.1E-08	4.1E-08	4.1E-08	4.0E-08	1.1E-09			
A	FIRST PLANT WINDY	S+	0.81	1300.	6.5E-08	6.5E-08	6.5E-08	6.5E-08	7.0E-10			
A	FIRST PLANT WINDY	SS+	0.29	460.	8.3E-08	8.3E-08	8.2E-08	8.2E-08	1.6E-09			
A	FIRST PLANT WINDY	S+	0.34	540.	9.2E-08	9.2E-08	9.2E-08	9.2E-08	1.7E-09			
A	FIRST PLANT WINDY	SS+	0.37	600.	6.4E-08	6.6E-08	6.6E-08	6.6E-08	1.1E-09			
A	FIRST PLANT WINDY	SS+	0.29	470.	8.4E-08	8.4E-08	8.4E-08	8.4E-08	1.2E-09			
A	FIRST PLANT WINDY	SS+	0.29	460.	6.3E-08	6.3E-08	6.3E-08	6.3E-08	9.1E-10			
A	FIRST PLANT WINDY	S	0.30	480.	9.5E-08	9.5E-08	9.5E-08	9.5E-08	1.6E-09			
A	FIRST PLANT WINDY	SS+	0.43	690.	4.2E-07 6.0E-06	4.2E-07 6.0E-06	4.2E-07 5.5E-06	4.2E-07 5.5E-06	4.2E-07 2.3E-08			
A	FIRST PLANT WINDY	SS+	0.21	340.	4.2E-07 1.3E-05	4.2E-07 1.3E-05	4.2E-07 1.2E-05	4.2E-07 1.2E-05	4.2E-07 8.0E-08			
A	FIRST PLANT WINDY	SS+	0.21	340.	3.6E-07	3.6E-07	3.5E-07	3.5E-07	8.9E-09			
A	FIRST PLANT WINDY	S	0.24	450.	3.1E-07	3.1E-07	3.1E-07	3.1E-07	8.5E-09			
A	FIRST PLANT WINDY	SS+	0.32	510.	4.5E-07 4.4E-06	4.5E-07 4.4E-06	4.5E-07 4.1E-06	4.5E-07 4.1E-06	4.5E-07 2.5E-08			
A	FIRST PLANT WINDY	SS+	0.37	600.	4.5E-07 3.7E-06	4.5E-07 3.7E-06	4.5E-07 3.4E-06	4.5E-07 3.4E-06	4.5E-07 1.9E-08			
A	FIRST PLANT WINDY	SS+	0.41	660.	1.1E-07	1.0E-07	1.0E-07	1.0E-07	3.2E-09			
A	FIRST RESIDENT	S	1.30	2100.	1.2E-07	1.2E-07	1.2E-07	1.2E-07	9.4E-10			
A	FIRST RESIDENT	SS+	0.68	1100.	4.4E-08	4.4E-08	4.4E-08	4.4E-08	9.7E-10			
A	FIRST RESIDENT	SS+	1.30	2100.	1.9E-07	1.9E-07	1.9E-07	1.9E-07	5.0E-10			
A	FIRST RESIDENT	SS+	1.37	2200.	8.0E-07	7.9E-07	8.0E-07	8.0E-07	6.7E-10			
A	FIRST RESIDENT	S	2.17	3500.	5.5E-07	5.4E-07	5.5E-07	5.5E-07	3.3E-10			
A	FIRST RESIDENT	SS+	2.17	3500.	7.5E-07	7.3E-07	7.4E-07	7.4E-07	1.9E-10			
A	FIRST RESIDENT	SS+	0.81	1300.	6.6E-08	6.5E-08	6.5E-08	6.5E-08	6.5E-10			
A	FIRST RESIDENT	SS+	0.62	1000.	2.2E-08	2.2E-08	2.1E-08	2.1E-08	5.7E-10			
A	FIRST RESIDENT	S	1.49	2400.	3.1E-07	3.1E-07	3.1E-07	3.1E-07	4.4E-10			
A	FIRST RESIDENT	SS+	1.55	2500.	4.4E-07 7.9E-07	4.4E-07 7.9E-07	4.4E-07 6.7E-07	4.4E-07 6.7E-07	4.4E-07 2.4E-09			
A	FIRST RESIDENT	SS+	0.39	610.	4.4E-07 5.1E-06	4.4E-07 5.1E-06	4.4E-07 4.8E-06	4.4E-07 4.8E-06	4.4E-07 3.3E-08			
A	FIRST RESIDENT	SS+	0.39	610.	2.5E-07	2.5E-07	2.5E-07	2.5E-07	8.2E-09			
A	FIRST RESIDENT	S	0.41	660.	2.2E-07	2.2E-07	2.1E-07	2.1E-07	8.4E-09			
A	FIRST RESIDENT	SS+	0.93	1500.	4.3E-07 8.2E-07	4.3E-07 8.2E-07	4.3E-07 7.2E-07	4.3E-07 7.2E-07	4.3E-07 4.4E-09			
A	FIRST RESIDENT	SS+	1.06	1700.	4.3E-07 7.4E-07	4.3E-07 7.3E-07	4.3E-07 6.4E-07	4.3E-07 6.4E-07	4.3E-07 3.4E-09			
A	FIRST RESIDENT	SS+	0.81	1300.	8.3E-08	8.3E-08	8.2E-08	8.2E-08	1.6E-09			
A	FIRST VEG GRASS	S	1.36	3000.	1.3E-07	1.3E-07	1.3E-07	1.3E-07	5.8E-10			
A	FIRST VEG GRASS	SS+	1.37	2200.	1.2E-07	1.2E-07	1.2E-07	1.2E-07	4.4E-10			
A	FIRST VEG GRASS	SS+	1.30	2100.	1.9E-07	1.9E-07	1.9E-07	1.9E-07	5.0E-10			
A	FIRST VEG GRASS	SS+	1.37	2200.	8.0E-07	7.9E-07	8.0E-07	8.0E-07	6.7E-10			
A	FIRST VEG GRASS	S	2.17	3500.	5.5E-07	5.4E-07	5.5E-07	5.5E-07	3.3E-10			
A	FIRST VEG GRASS	SS+	2.17	3500.	7.5E-07	7.3E-07	7.4E-07	7.4E-07	1.9E-10			
A	FIRST VEG GRASS	S	0.87	1400.	8.7E-08	8.6E-08	8.6E-08	8.6E-08	6.0E-10			
A	FIRST VEG GRASS	SS+	0.47	1400.	4.3E-08	4.3E-08	4.3E-08	4.3E-08	4.3E-10			
A	FIRST VEG GRASS	S	1.54	2500.	3.4E-07	3.4E-07	3.4E-07	3.4E-07	4.2E-10			
A	FIRST VEG GRASS	SS+	1.62	2600.	4.3E-07 7.4E-07	4.3E-07 7.4E-07	4.3E-07 6.3E-07	4.3E-07 6.3E-07	4.3E-07 2.2E-09			
A	FIRST VEG GRASS	S	0.39	620.	4.4E-07 5.0E-06	4.4E-07 5.0E-06	4.4E-07 4.6E-06	4.4E-07 4.6E-06	4.4E-07 3.2E-08			
A	FIRST VEG GRASS	SS+	0.99	1600.	3.3E-07	3.3E-07	3.3E-07	3.3E-07	4.3E-09			
A	FIRST VEG GRASS	S	1.14	1900.	2.7E-07	2.7E-07	2.6E-07	2.6E-07	2.8E-09			
A	FIRST VEG GRASS	SS+	0.92	1600.	4.4E-07 7.4E-07	4.4E-07 7.4E-07	4.4E-07 6.5E-07	4.4E-07 6.5E-07	4.4E-07 3.9E-09			
A	FIRST VEG GRASS	SS+	1.94	1700.	4.4E-07 7.4E-07	4.4E-07 7.3E-07	4.4E-07 6.4E-07	4.4E-07 6.4E-07	4.4E-07 3.4E-09			
A	FIRST VEG GRASS	SS+	0.49	1600.	1.0E-07	1.0E-07	1.0E-07	1.0E-07	1.3E-09			
A	FIRST PLANT WINDY	S	1.37	2200.	1.3E-07	1.2E-07	1.2E-07	1.2E-07	8.7E-10			
A	FIRST PLANT WINDY	SS+	1.37	2200.	1.2E-07	1.2E-07	1.2E-07	1.2E-07	4.4E-10			

A	FIRST HEAT A.M.L	S	1.13	2300.	2.2E-07	2.2E-07	2.2E-07	4.6E-10
A	FIRST HEAT A.M.L	S	1.43	2300.	8.7E-07	8.5E-07	8.6E-07	8.7E-10
A	FIRST HEAT A.M.L	S	2.17	4000.	5.3E-07	5.2E-07	5.3E-07	2.4E-10
A	FIRST HEAT A.M.L	S	2.17	4500.	7.5E-07	7.3E-07	7.4E-07	1.9E-10
A	FIRST HEAT A.M.L	S	2.20	4500.	1.3E-06	1.2E-06	1.3E-06	1.8E-10
A	FIRST HEAT A.M.L	S	2.12	3200.	6.0E-07	5.9E-07	6.0E-07	1.3E-10
A	FIRST HEAT A.M.L	S	2.55	3100.	7.3E-07	6.1E-07	6.2E-07	8.4E-10
A	FIRST HEAT A.M.L	SE	1.68	2700.	4.1E-07 7.0E-07	4.1E-07 6.9E-07	4.1E-07 5.9E-07	4.1E-07 7.1E-09
A	FIRST HEAT A.M.L	SE	4.72	7400.	1.0E-07 1.1E-07	1.0E-07 1.0E-07	1.0E-07 7.9E-08	1.0E-07 4.1E-10
A	FIRST HEAT A.M.L	SE	2.61	4200.	1.8E-07	1.8E-07	1.7E-07	1.1E-09
A	FIRST HEAT A.M.L	SE	0.73	1500.	1.1E-07 8.2E-07	1.1E-07 8.2E-07	1.1E-07 7.2E-07	1.1E-07 4.4E-09
A	FIRST HEAT A.M.L	SE	1.92	3200.	1.4E-07 3.0E-07	1.4E-07 3.0E-07	1.4E-07 2.5E-07	1.4E-07 1.2E-09
A	FIRST HEAT A.M.L	SE	1.06	1700.	1.2E-07	1.1E-07	1.1E-07	1.2E-09
A	FIRST DAIRY COX	S	1.99	3200.	1.3E-07	1.3E-07	1.3E-07	5.2E-10
A	FIRST DAIRY COX	SS	1.79	3200.	1.4E-07	1.3E-07	1.3E-07	2.7E-10
A	FIRST DAIRY COX	SS	3.17	5100.	7.7E-07	7.4E-07	7.3E-07	7.8E-10
A	FIRST DAIRY COX	S	3.11	5000.	4.9E-07	4.7E-07	4.8E-07	1.7E-10
A	FIRST DAIRY COX	SS	2.73	4400.	1.1E-06	1.0E-06	1.1E-06	1.7E-10
A	FIRST DAIRY COX	SE	4.72	7600.	1.0E-07 1.1E-07	1.0E-07 1.0E-07	1.0E-07 7.9E-08	1.0E-07 4.1E-10
A	FIRST DAIRY COX	S	4.35	7000.	8.6E-08	8.4E-08	7.8E-08	4.7E-10
A	FIRST DAIRY COX	SE	3.48	5600.	8.9E-08 1.2E-07	8.9E-08 1.2E-07	8.9E-08 9.2E-08	8.9E-08 4.2E-10
A	FIRST DAIRY COX	SE	3.11	5000.	1.1E-07	1.1E-07	1.1E-07	3.5E-10
A	FIRST DAIRY GOAT	SS	3.42	5500.	1.3E-07	1.2E-07	1.2E-07	1.5E-10
A	FIRST DAIRY GOAT	S	1.96	3000.	2.9E-07	2.9E-07	2.9E-07	4.0E-10
A	FIRST DAIRY GOAT	SS	14.29	23000.	2.7E-07	2.1E-07	2.2E-07	6.3E-11
A	FIRST DAIRY GOAT	SS	6.84	11000.	1.2E-06	1.1E-06	1.1E-06	3.6E-10
A	FIRST DAIRY GOAT	SS	9.32	15000.	2.0E-07	1.8E-07	1.8E-07	8.6E-11
A	FIRST DAIRY GOAT	S	2.86	4600.	5.5E-07	5.4E-07	5.4E-07	7.3E-10
A	FIRST DAIRY GOAT	SE	3.95	6200.	2.1E-07 2.0E-07	2.0E-07 2.0E-07	1.9E-07 1.6E-07	1.9E-07 4.6E-10
A	FIRST DAIRY GOAT	SE	1.30	2100.	3.9E-07 8.2E-07	3.9E-07 6.1E-07	3.7E-07 7.0E-07	3.6E-07 4.5E-09
A	FIRST DAIRY GOAT	SE	2.16	6700.	1.4E-07	1.4E-07	1.3E-07	8.9E-10
A	FIRST DAIRY GOAT	F	2.61	4200.	1.8E-07	1.8E-07	1.7E-07	1.1E-09
A	FIRST DAIRY GOAT	SE	1.74	2800.	1.5E-07 3.1E-07	1.5E-07 3.1E-07	1.5E-07 2.6E-07	1.5E-07 1.5E-09
A	FIRST DAIRY GOAT	SE	3.48	5600.	8.9E-08 1.2E-07	8.9E-08 1.2E-07	8.9E-08 9.2E-08	8.9E-08 4.2E-10
A	FIRST DAIRY GOAT	SE	6.21	10000.	4.2E-08	4.0E-08	3.7E-08	1.1E-10

VENT AND BUILDING PARAMETERS:

RELEASE HEIGHT (METERS) 46.00
 DIAMETER (METERS) 1.10
 EXIT VELOCITY (METERS) 31.00

REF. WIND HEIGHT (METERS) 10.7
 BUILDING HEIGHT (METERS) 46.0
 BLDG. MIN. CRS. SEC. AREA (SQ. METERS) 1600.0
 HEAT EMISSION RATE (CAL/SEC) 0.0

AT THE RELEASE HEIGHT:

VENT RELEASE MODE WIND SPEED (METERS/SEC)
 ELEVATED LESS THAN 6.200
 MIXED BETWEEN 6.200 AND 31.000
 GROUND LEVEL ABOVE 31.000

AT THE MEASURED WIND HEIGHT (10.7 METERS):

VENT RELEASE MODE WIND SPEED (METERS/SEC)
 STABLE CONDITIONS
 ELEVATED LESS THAN 6.200
 MIXED BETWEEN 6.200 AND 31.000
 GROUND LEVEL ABOVE 31.000

WIND SPEED (METERS/SEC)
 UNSTABLE/NEUTRAL CONDITIONS
 LESS THAN 6.200
 BETWEEN 6.200 AND 31.000
 ABOVE 31.000

1	FIRST HEAT AMPL	SSA	1.37	2200.	5.0E-07	2.9E-07	4.9E-07	1.8E-09
2	FIRST HEAT AMPL	SA	1.14	2400.	7.6E-07	7.5E-07	7.6E-07	1.6E-09
3	FIRST HEAT AMPL	SA	1.43	2400.	2.5E-06	2.4E-06	2.5E-06	1.9E-09
4	FIRST HEAT AMPL	SA	2.42	2000.	1.9E-06	1.3E-06	1.4E-06	6.3E-10
5	FIRST HEAT AMPL	SA	2.17	3500.	1.6E-06	1.6E-06	1.4E-06	4.2E-10
6	FIRST HEAT AMPL	SA	2.80	2500.	2.6E-06	2.5E-06	2.6E-06	3.7E-10
7	FIRST HEAT AMPL	SA	2.32	3200.	1.6E-06	1.6E-06	1.6E-06	3.5E-10
8	FIRST HEAT AMPL	SA	2.55	2100.	1.7E-06	1.8E-06	1.8E-06	2.5E-09
9	FIRST HEAT AMPL	DFE	1.64	2700.	1.8E-06 1.8E-06	1.8E-06 1.8E-06	1.5E-06 1.5E-06	5.4E-09 5.4E-09
10	FIRST HEAT AMPL	DE	4.72	7600.	2.6E-07 2.6E-07	2.6E-07 2.6E-07	2.0E-07 2.0E-07	1.0E-09 1.0E-09
11	FIRST HEAT AMPL	E	2.61	4200.	4.6E-07	4.6E-07	4.4E-07	2.4E-09
12	FIRST HEAT AMPL	ESF	0.93	1500.	2.7E-06 2.7E-06	2.7E-06 2.7E-06	2.4E-06 2.4E-06	1.5E-08 1.5E-08
13	FIRST HEAT AMPL	SE	1.99	3200.	3.4E-07 3.4E-07	3.4E-07 3.4E-07	6.9E-07 6.9E-07	3.4E-09 3.4E-09
14	FIRST HEAT AMPL	SSE	1.06	1700.	3.9E-07	3.8E-07	3.8E-07	3.9E-07
15	FIRST DAIRY COW	S	1.99	3200.	4.1E-07	4.0E-07	4.0E-07	1.6E-09
16	FIRST DAIRY COW	SSA	1.99	3200.	5.3E-07	5.3E-07	5.3E-07	1.1E-09
17	FIRST DAIRY COW	SSA	3.17	5100.	2.1E-06	2.0E-06	2.0E-06	2.1E-09
18	FIRST DAIRY COW	S	3.11	5000.	1.3E-06	1.3E-06	1.3E-06	4.6E-10
19	FIRST DAIRY COW	SSA	2.73	4400.	2.3E-06	2.3E-06	2.3E-06	3.6E-10
20	FIRST DAIRY COW	DFE	4.72	7600.	2.6E-07 2.6E-07	2.6E-07 2.6E-07	2.0E-07 2.0E-07	1.0E-09 1.0E-09
21	FIRST DAIRY COW	E	4.35	7000.	2.1E-07	2.1E-07	2.0E-07	1.2E-09
22	FIRST DAIRY COW	SE	3.44	5600.	3.5E-07 3.5E-07	3.4E-07 3.4E-07	2.7E-07 2.7E-07	1.2E-09 1.2E-09
23	FIRST DAIRY COW	SSE	3.11	5000.	3.6E-07	3.6E-07	3.5E-07	1.1E-09
24	FIRST DAIRY GOAT	SSA	3.42	5500.	4.6E-07	4.5E-07	4.5E-07	5.3E-10
25	FIRST DAIRY GOAT	SA	1.86	3000.	9.4E-07	9.2E-07	9.3E-07	1.3E-09
26	FIRST DAIRY GOAT	SSA	14.29	23000.	7.3E-07	5.9E-07	6.0E-07	1.7E-10
27	FIRST DAIRY GOAT	SA	6.84	11000.	2.2E-06	2.0E-06	2.1E-06	6.8E-10
28	FIRST DAIRY GOAT	SSA	9.32	15000.	6.1E-07	5.6E-07	5.4E-07	2.6E-10
29	FIRST DAIRY GOAT	S	2.84	4600.	1.6E-06	1.6E-06	1.6E-06	2.2E-09
30	FIRST DAIRY GOAT	DFE	3.85	6200.	5.5E-07 5.5E-07	5.4E-07 5.4E-07	4.2E-07 4.2E-07	1.2E-09 1.2E-09
31	FIRST DAIRY GOAT	DE	1.30	2100.	1.8E-06 1.8E-06	1.8E-06 1.8E-06	1.6E-06 1.6E-06	1.0E-08 1.0E-08
32	FIRST DAIRY GOAT	DFE	4.16	6700.	6.0E-07	5.9E-07	5.5E-07	3.7E-09
33	FIRST DAIRY GOAT	E	2.61	4200.	4.6E-07	4.6E-07	4.4E-07	2.8E-09
34	FIRST DAIRY GOAT	ESF	1.74	2400.	9.4E-07 9.4E-07	9.3E-07 9.3E-07	7.8E-07 7.8E-07	4.5E-09 4.5E-09
35	FIRST DAIRY GOAT	SE	3.44	5600.	3.5E-07 3.5E-07	3.4E-07 3.4E-07	2.7E-07 2.7E-07	1.2E-09 1.2E-09
36	FIRST DAIRY GOAT	SSE	6.21	10000.	1.5E-07	1.4E-07	1.3E-07	3.8E-10

VENT AND BUILDING PARAMETERS:

RELEASE HEIGHT (METERS) 46.00
DIAMETER (METERS) 1.10
EXIT VELOCITY (METERS) 31.00

REP. WIND HEIGHT (METERS) 10.7
BUILDING HEIGHT (METERS) 46.0
BLDG. MIN. CRS. SEC. AREA (SQ. METERS) 1600.0
HEAT EMISSION RATE (CAL/SEC) 0.0

AT THE RELEASE HEIGHT:

VENT RELEASE MODE WIND SPEED (METERS/SEC)
ELEVATED LESS THAN 6.200
MIXED BETWEEN 6.200 AND 31.000
GROUND LEVEL ABOVE 31.000

AT THE MEASURED WIND HEIGHT (10.7 METERS):

VENT RELEASE MODE WIND SPEED (METERS/SEC)
ELEVATED LESS THAN 6.200
MIXED BETWEEN 6.200 AND 31.000
GROUND LEVEL ABOVE 31.000

TOTAL NUMBER OF BUILDING
HOURS PER BUILDING

1
100