

Exelon Generation Company, LLC  
Dresden Nuclear Power Station  
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Nuclear

10 CFR 50.36a (a)(2)  
10CFR 50.4

March 30, 2001

PSLTR: #01-0042

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

Dresden Nuclear Power Station Units 1, 2, and 3  
Facility Operating Licenses DPR-2, DPR-19, and DPR-25  
NRC Dockets 50-10, 50-237 and 50-249

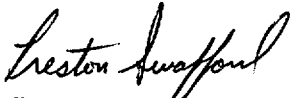
Subject: Dresden Nuclear Power Station 2000 Radioactive Effluent Release Report and  
Offsite Dose Calculation Manual Changes

The Radioactive Effluent Release Report for January through December 2000 for Dresden Nuclear Power Station (DNPS) is submitted in accordance with Section 6.9.A.4, "Radioactive Effluent Release Report", of the Dresden Technical Specifications and 10CFR 50.36a (a)(2), "Technical specifications".

A copy of the DNPS Offsite Dose Calculation Manual (ODCM), current as of December 31, 2000, and a Summary of Changes to the ODCM implemented in 2000 are also submitted in accordance with Dresden Technical Specification Section 6.14.A.3, "Offsite Dose Calculation Manual (ODCM)", and 10CFR 50.4, "Written communications".

Should you have any questions concerning this letter, please contact Mr. D.F. Ambler, Regulatory Assurance Manager, at (815) 942-2920, extension 3800.

Respectfully,



Preston Swafford  
Site Vice President  
Dresden Nuclear Power Station

Attachments: DNPS 2000 Radioactive Effluent Release Report  
DNPS Offsite Dose Calculation Manual  
Summary of Changes to DNPS ODCM

cc: Regional Administrator - NRC Region III  
NRC Senior Resident - Dresden Nuclear Power Station

IE48

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

DOCKET NUMBERS: 50-010/50-237/50-249

1. Regulatory Limits

a. For Noble Gases

Dose Rate

- 1) Less than 500 mrem/year to the whole body.
- 2) Less than 3000 mrem/year to the skin.

Dose Gamma Radiation

- 1) Less than or equal to 5 mrad/quarter.
- 2) Less than or equal to 10 mrad/year.

Beta Radiation

- 1) Less than or equal to 10 mrad/quarter.
- 2) Less than or equal to 20 mrad/year.

b.,c. For Iodine-131, for Iodine-133, and for all radionuclides in particulate form with half-lives greater than 8 days.

Dose Rate

- 1) Less than 1500 mrem/year.

Dose

- 1) Less than or equal to 7.5 mrem/quarter to any organ.
- 2) Less than or equal to 15 mrem/year to any organ.

d. For Liquid

- 1) Less than or equal to 3 mrem to the whole body during any calendar quarter.
- 2) Less than or equal to 10 mrem to any organ during any calendar quarter.
- 3) Less than or equal to 6 mrem to the whole body during any calendar year.
- 4) Less than or equal to 20 mrem to any organ during any calendar year.

2. Maximum Permissible Concentration

a., b., c. For fission and activation gases, iodines and particulates with half-lives greater than 8 days, allowable dose rates are calculated by solving equations 10.1 and 10.2 from the Offsite Dose Calculation Manual.

d. For liquid effluents, allowable release limits are calculated by solving equations 10.3 and 10.4 from the Offsite Dose Calculation Manual.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

DOCKET NUMBERS: 50-010/50-237/50-249

3. Average Energy

The average energy of fission and activation gases was calculated for the gaseous effluents released from the site. The average energy is based on the percentage of each fission gas nuclide present and its average energy per disintegration (E in MeV/dis) for gamma and beta emissions separately.

$$\begin{array}{rcl} E_{\text{GAMMA}} & = & 1.69\text{E-01 MeV/dis} \\ E_{\text{BETA}} & = & 2.93\text{E-01 MeV/dis} \end{array}$$

4. Measurement and Approximations of Total Radioactivity

- a. Fission and Activation Gases:
- b. Iodines:
- c. Particulates:

The Units 2/3 and Unit 1 Chimneys, Units 2/3 Reactor Building Vent and Unit 1 Chemical Cleaning Building effluents are continually sampled for iodines and particulates. These samples are pulled weekly and analyzed by gamma isotopic. The particulate filters are composited and sent to a vendor for gross alpha, Sr-89/90 and Fe-55 analysis. Noble gas grab samples are pulled and analyzed by gamma isotopic weekly. Tritium samples are pulled and analyzed monthly.

For the Units 2/3 Chimney and Units 2/3 Reactor Building Vent effluents, the average flow at the release points is used to calculate the Curies released. For the Unit 1 Chimney and Unit 1 Chemical Cleaning Building effluents, the design basis flows are used to calculate Curies released.

- d. Liquid Effluents:

The river discharge tanks are analyzed by isotopic prior to discharge. A representative portion of this sample is saved and composited with other discharges that occur during the sampling period. The composite is sent to a vendor for analyses of gross alpha, H-3, Fe-55, Sr-89/90 content.

The tank volumes and activities are used to calculate the diluted activity released at the discharge point from batch discharges.

- e. Less than the lower limit of detection (<LLD)

Samples are analyzed such that the ODCM LLD requirements are met. When a nuclide is not detected then <LLD is reported.

- f. Equipment out-of-service

None.

- g. Estimation of Data/Corrections:

None.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through June 2000

DOCKET NUMBERS: 50-010/50-237/50-249

SUMMATION OF ALL GASEOUS RELEASES

	UNITS	1 <sup>ST</sup> Quarter	2 <sup>nd</sup> Quarter	Est. Total Error, %
A. FISSION & ACTIVATION GASES				
1. Total Release	Ci	3.39E+02	1.98E+02	7.31%
2. Average Release Rate for the Period	μCi/sec	4.31E+01	2.51E+01	
3. Percent of Technical Specification Limit	%	*	*	
B. IODINES				
1. Total Iodine-131	Ci	1.12E-03	1.39E-03	21.6%
2. Average Release Rate of I-131 for the Period	μCi/sec	1.43E-04	1.77E-04	
3. Percent of Technical Specification Limit	%	*	*	
4. Total Iodine-131, Iodine-133 and Iodine-135	Ci	3.53E-02	4.75E-02	
C. PARTICULATES				
1. Particulates with half-lives > 8 days	Ci	5.30E-03	4.96E-03	34.1%
2. Average Release Rate for the Period	μCi/sec	6.74E-04	6.31E-04	
3. Percent of Technical Specification Limit	%	*	*	
4. Gross Alpha Radioactivity	Ci	7.92E-06	3.83E-06	
D. TRITIUM				
1. Total Release	Ci	9.77E+00	4.32E+00	7.89%
2. Average Release Rate for the Period	μCi/sec	1.24E+00	5.49E-01	
3. Percent of Technical Specification Limit	%	*	*	

\*The information is contained in the Radiological Impact on Man section of the report. Total airborne release data are provided which include fission and activation gases, iodines, particulates, tritium.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
July Through December 2000

DOCKET NUMBERS: 50-010/50-237/50-249

SUMMATION OF ALL GASEOUS RELEASES

	UNITS	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Est. Total Error, %
A. FISSION & ACTIVATION GASES				
1. Total Release	Ci	6.83E+01	2.71E+01	7.31%
2. Average Release Rate for the Period	μCi/sec	8.60E+00	3.41E+00	
3. Percent of Technical Specification Limit	%	*	*	
B. IODINES				
1. Total Iodine-131	Ci	1.42E-03	5.94E-04	21.6%
2. Average Release Rate of I-131 for the Period	μCi/sec	1.79E-04	7.48E-05	
3. Percent of Technical Specification Limit	%	*	*	
4. Total Iodine-131, Iodine-133 and Iodine-135	Ci	3.49E-02	5.99E-03	
C. PARTICULATES				
1. Particulates with half-lives > 8 days	Ci	2.25E-03	4.14E-03	34.1%
2. Average Release Rate for the Period	μCi/sec	2.83E-04	5.21E-04	
3. Percent of Technical Specification Limit	%	*	*	
4. Gross Alpha Radioactivity	Ci	7.44E-06	3.08E-06	
D. TRITIUM				
1. Total Release	Ci	4.01E+00	1.63E+01	7.89%
2. Average Release Rate for the Period	μCi/sec	5.04E-01	2.05E+00	
3. Percent of Technical Specification Limit	%	*	*	

\*The information is contained in the Radiological Impact on Man section of the report. Total airborne release data are provided which include fission and activation gases, iodines, particulates, tritium.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

DOCKET NUMBERS: 50-010/50-237/50-249

TABLE OF LOWER LIMITS OF DETECTABILITY  
FOR AIRBORNE EFFLUENTS

1.	FISSION/ACTIVATION GASES	μCi/ml
	Kr-87	1.00E-06
	Kr-88	1.00E-06
	Xe-133	1.00E-06
	Xe-133m	1.00E-06
	Xe-135	1.00E-06
	Xe-138	1.00E-06
2.	IODINES	μCi/ml
	I-131	1.00E-12
	I-133	1.00E-10
3.	PARTICULATES	μCi/ml
	Sr-89	1.00E-11
	Sr-90	1.00E-11
	Mn-54	1.00E-11
	Fe-59	1.00E-11
	Co-58	1.00E-11
	Co-60	1.00E-11
	Zn-65	1.00E-11
	Mo-99	1.00E-11
	Cs-134	1.00E-11
	Cs-137	1.00E-11
	Ce-141	1.00E-11
	Ce-144	1.00E-11
4.	OTHER	μCi/ml
	H-3	1.00E-06
	Gross Alpha	1.00E-11

The above values are the ODCM-required LLDs. Actual analyses always met the required LLDs.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

D1 MAIN CHIMNEY

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-010

GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

XX

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	TOTAL
FISSION GASES						
Ar-41	Ci	*	*	*	*	*
Kr-85	Ci	*	*	*	*	*
Kr-85m	Ci	*	*	*	*	*
Kr-87	Ci	*	*	*	*	*
Kr-88	Ci	*	*	*	*	*
Xe-133	Ci	*	*	*	*	*
Xe-133m	Ci	*	*	*	*	*
Xe-135	Ci	1.04E-06	4.17E-06	*	*	5.21E-06
Xe-135m	Ci	*	*	*	*	*
Xe-138	Ci	*	*	*	*	*
TOTAL	Ci	1.04E-06	4.17E-06	None	None	5.21E-06
IODINES						
I-131	Ci	*	*	*	*	*
I-133	Ci	*	*	*	*	*
I-135	Ci	*	*	*	*	*
TOTAL	Ci	None	None	None	None	None
PARTICULATES						
Fe-55	Ci	*	*	*	*	*
Sr-89	Ci	*	*	*	*	*
Sr-90	Ci	*	*	*	*	*
Be-7	Ci	*	*	*	*	*
Cr-51	Ci	*	*	*	*	*
Mn-54	Ci	1.66E-07	*	*	4.37E-07	6.03E-07
Co-57	Ci	*	*	*	*	*
Co-58	Ci	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*
Co-60	Ci	6.75E-07	2.13E-07	2.95E-07	*	1.18E-06
Zn-65	Ci	*	*	*	*	*
Sr-85	Ci	*	*	*	*	*
Zr-95	Ci	*	*	*	*	*
Mo-99	Ci	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*
Cd-109	Ci	2.08E-06	3.80E-06	*	*	5.88E-06
Ag-110m	Ci	*	*	*	*	*
Sn-113	Ci	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*
Sb-125	Ci	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*
Cs-136	Ci	*	*	*	*	*
Cs-137	Ci	*	1.83E-07	3.44E-07	*	5.27E-07
Ba-133	Ci	*	*	*	*	*
Ba-140	Ci	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*
Ce-144	Ci	*	*	*	*	*
TOTAL	Ci	2.92E-06	4.20E-06	6.39E-07	4.37E-07	8.19E-06

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

D1 MAIN CHIMNEY

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-010

GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

XX

BATCH MODE

NUCLIDES RELEASED	UNIT	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	TOTAL
FISSION GASES						
Ar-41	Ci	*	*	*	*	*
Kr-85	Ci	*	*	1.10E+01	*	1.10E+01
Kr-85m	Ci	*	*	*	*	*
Kr-87	Ci	*	*	*	*	*
Kr-88	Ci	*	*	*	*	*
Xe-133	Ci	*	*	*	*	*
Xe-133m	Ci	*	*	*	*	*
Xe-135	Ci	*	*	*	*	*
Xe-135m	Ci	*	*	*	*	*
Xe-138	Ci	*	*	*	*	*
TOTAL	Ci	None	None	1.10E+01	None	1.10E+01
IODINES						
I-131	Ci	*	*	*	*	*
I-133	Ci	*	*	*	*	*
I-135	Ci	*	*	*	*	*
TOTAL	Ci	None	None	None	None	None
PARTICULATES						
Fe-55	Ci	*	*	*	*	*
Sr-89	Ci	*	*	*	*	*
Sr-90	Ci	*	*	*	*	*
Be-7	Ci	*	*	*	*	*
Cr-51	Ci	*	*	*	*	*
Mn-54	Ci	*	*	*	*	*
Co-57	Ci	*	*	*	*	*
Co-58	Ci	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*
Co-60	Ci	*	*	*	*	*
Zn-65	Ci	*	*	*	*	*
Sr-85	Ci	*	*	*	*	*
Zr-95	Ci	*	*	*	*	*
Mo-99	Ci	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*
Sn-113	Ci	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*
Sb-125	Ci	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*
Cs-136	Ci	*	*	*	*	*
Cs-137	Ci	*	*	*	*	*
Ba-133	Ci	*	*	*	*	*
Ba-140	Ci	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*
Ce-144	Ci	*	*	*	*	*
TOTAL	Ci	None	None	None	None	None

\* The activity of this nuclide is less than the LLD.



DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

D2/3 REACTOR BUILDING VENT

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	TOTAL
FISSION GASES						
Ar-41	Ci	*	*	*	*	*
Kr-85	Ci	*	*	*	*	*
Kr-85m	Ci	*	*	*	*	*
Kr-87	Ci	*	*	*	*	*
Kr-88	Ci	*	*	*	*	*
Xe-131m	Ci	*	*	2.02E-05	*	2.02E-05
Xe-133	Ci	1.73E-06	*	1.41E+01	*	1.41E+01
Xe-135	Ci	3.02E-04	2.93E-05	3.28E-05	2.39E-05	3.88E-04
Xe-135m	Ci	1.71E-04	*	*	*	1.71E-04
Xe-138	Ci	*	*	*	*	*
TOTAL	Ci	4.76E-04	2.93E-05	1.41E+01	2.39E-05	1.41E+01
IODINES						
I-131	Ci	1.37E-04	1.02E-05	3.85E-05	3.53E-06	1.89E-04
I-133	Ci	1.24E-03	5.51E-05	1.72E-04	4.83E-05	1.52E-03
I-135	Ci	3.02E-03	*	*	8.33E-04	3.85E-03
TOTAL	Ci	4.26E-03	5.51E-05	1.72E-04	8.81E-04	5.37E-03
PARTICULATES						
Fe-55	Ci	3.50E-04	1.42E-04	3.30E-04	2.46E-04	1.07E-03
Sr-89	Ci	*	*	*	*	*
Sr-90	Ci	*	*	*	*	*
Be-7	Ci	*	*	*	*	*
Cr-51	Ci	1.03E-03	*	1.82E-05	1.81E-05	1.07E-03
Mn-54	Ci	1.55E-04	2.61E-05	4.81E-05	9.17E-05	3.20E-04
Co-57	Ci	*	*	*	*	*
Co-58	Ci	5.62E-05	*	1.98E-06	1.26E-06	5.94E-05
Fe-59	Ci	*	*	6.45E-06	3.19E-06	9.64E-06
Co-60	Ci	2.09E-04	2.82E-05	5.73E-05	5.26E-05	3.47E-04
Zn-65	Ci	3.28E-05	*	8.99E-06	9.47E-06	5.13E-05
Sr-85	Ci	*	*	*	*	*
Sr-89	Ci	6.63E-06	1.49E-07	*	1.97E-06	8.75E-06
Sr-90	Ci	1.27E-06	4.08E-08	*	*	1.31E-06
Zr-95	Ci	*	*	*	*	*
Mo-99	Ci	5.82E-05	*	*	*	5.82E-05
Ru-103	Ci	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*
Sn-113	Ci	2.07E-06	*	*	*	2.07E-06
Sb-124	Ci	5.33E-07	*	*	*	5.33E-07
Sb-125	Ci	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*
Cs-137	Ci	*	*	*	*	*
Ba-140	Ci	1.35E-03	*	6.30E-06	*	1.36E-03
Ce-141	Ci	*	*	*	3.48E-07	3.48E-07
Ce-144	Ci	*	*	*	4.99E-06	4.99E-06
Hg-203	Ci	*	9.57E-07	*	*	9.57E-07
TOTAL	Ci	3.25E-03	1.97E-04	4.77E-04	4.29E-04	4.36E-03

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

D2/3 REACTOR BUILDING VENT

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

XX

GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

BATCH MODE

NUCLIDES RELEASED	UNIT	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	TOTAL
FISSION GASES						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-135m	Ci					
Xe-138	Ci					
TOTAL	Ci	None	None	None	None	None
IODINES						
I-131	Ci					
I-133	Ci					
I-135	Ci					
TOTAL	Ci	None	None	None	None	None
PARTICULATES						
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
Be-7	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Sr-85	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ru-103	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-136	Ci					
Cs-137	Ci					
Ba-133	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
TOTAL	Ci	None	None	None	None	None

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

D2/3 MAIN CHIMNEY

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

XX

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	TOTAL
FISSION GASES						
Ar-41	Ci	8.49E-01	5.74E-01	1.21E+00	1.51E-01	2.78E+00
Kr-85	Ci	2.94E+02	1.58E+02	2.83E-03	*	4.52E+02
Kr-85m	Ci	2.81E+00	1.81E+00	4.55E-01	2.43E-01	5.32E+00
Kr-87	Ci	8.29E-01	9.14E-01	8.68E-01	6.95E-01	3.31E+00
Kr-88	Ci	1.86E+00	9.84E-01	7.28E-01	5.64E-01	4.13E+00
Xe-131m	Ci	*	2.32E-02	*	*	2.32E-02
Xe-133	Ci	5.03E+00	3.10E+00	9.91E-01	3.69E-01	9.49E+00
Xe-133m	Ci	*	1.29E-03	*	*	1.29E-03
Xe-135	Ci	1.18E+01	8.64E+00	1.34E+01	9.04E+00	4.29E+01
Xe-135m	Ci	4.09E+00	4.79E+00	8.61E+00	3.13E+00	2.06E+01
Xe-138	Ci	1.75E+01	1.85E+01	1.69E+01	1.29E+01	6.58E+01
TOTAL	Ci	3.39E+02	1.98E+02	4.32E+01	2.71E+01	6.07E+02
IODINES						
I-131	Ci	9.84E-04	1.38E-03	1.41E-03	5.91E-04	4.37E-03
I-133	Ci	6.77E-03	8.49E-03	6.72E-03	2.72E-03	2.47E-02
I-135	Ci	2.33E-02	3.75E-02	2.65E-02	1.80E-03	8.92E-02
TOTAL	Ci	3.10E-02	4.74E-02	3.47E-02	5.10E-03	1.18E-01
PARTICULATES						
Fe-55	Ci	3.56E-04	1.81E-04	3.57E-04	1.20E-03	2.09E-03
Be-7	Ci	*	*	*	*	*
Cr-51	Ci	2.64E-04	2.32E-04	*	8.14E-05	5.77E-04
Mn-54	Ci	1.89E-04	3.42E-05	5.92E-05	5.27E-04	8.09E-04
Co-57	Ci	*	*	*	*	*
Co-58	Ci	3.89E-05	9.04E-06	1.16E-05	5.43E-05	1.14E-04
Fe-59	Ci	*	*	*	4.07E-05	4.07E-05
Co-60	Ci	3.11E-04	2.49E-04	3.24E-04	3.97E-04	1.28E-03
Zn-65	Ci	1.64E-05	5.75E-05	7.21E-06	1.21E-04	2.02E-04
Sr-85	Ci	*	2.99E-03	1.29E-05	*	3.00E-03
Y-88	Ci	*	*	2.06E-06	*	2.06E-06
Sr-89	Ci	3.50E-04	2.83E-04	3.43E-04	2.67E-04	1.24E-03
Sr-90	Ci	4.11E-08	1.35E-06	2.11E-06	2.06E-06	5.55E-06
Zr-95	Ci	*	*	*	*	*
Mo-99	Ci	*	*	*	*	*
Ru-103	Ci	*	*	*	2.63E-04	2.63E-04
Cd-109	Ci	*	*	*	8.39E-05	8.39E-05
Ag-110m	Ci	*	*	2.91E-05	*	2.91E-05
Sn-117m	Ci	*	*	*	3.72E-05	3.72E-05
Sb-124	Ci	*	*	*	*	*
Sb-125	Ci	*	1.41E-05	1.78E-05	*	3.19E-05
Cs-134	Ci	*	5.38E-05	*	1.13E-05	6.51E-05
Cs-137	Ci	1.65E-06	*	*	*	1.65E-06
Ba-140	Ci	5.18E-04	6.54E-04	5.99E-04	5.18E-04	2.29E-03
Ce-141	Ci	*	*	*	*	*
Ce-144	Ci	*	*	*	*	*
TOTAL	Ci	2.04E-03	4.76E-03	1.77E-03	3.60E-03	1.22E-02

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

D2/3 MAIN CHIMNEY

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

XX

BATCH MODE

NUCLIDES RELEASED	UNIT	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	TOTAL
FISSION GASES						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-135m	Ci					
Xe-138	Ci					
TOTAL	Ci	None	None	None	None	None
IODINES						
I-131	Ci					
I-133	Ci					
I-135	Ci					
TOTAL	Ci	None	None	None	None	None
PARTICULATES						
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
Be-7	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Sr-85	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ru-103	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-136	Ci					
Cs-137	Ci					
Ba-133	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
TOTAL	Ci	None	None	None	None	None

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

CHEMICAL CLEANING BUILDING

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-010/50-237/50-249

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XX  
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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	TOTAL
FISSION GASES						
Ar-41	Ci	*	*	*	*	*
Kr-85	Ci	*	*	*	*	*
Kr-85m	Ci	*	*	*	*	*
Kr-87	Ci	*	*	*	*	*
Kr-88	Ci	*	*	*	*	*
Xe-133	Ci	*	*	*	*	*
Xe-133m	Ci	*	*	*	*	*
Xe-135	Ci	*	*	*	*	*
Xe-135m	Ci	*	*	*	*	*
Xe-138	Ci	*	*	*	*	*
TOTAL	Ci	None	None	None	None	None
IODINES						
I-131	Ci	*	*	*	*	*
I-133	Ci	*	*	*	*	*
I-135	Ci	*	*	*	*	*
TOTAL	Ci	None	None	None	None	None
PARTICULATES						
Fe-55	Ci	*	*	2.75E-06	4.65E-08	2.79E-06
Sr-89	Ci	*	*	*	*	*
Sr-90	Ci	*	*	*	*	*
Be-7	Ci	*	*	*	*	*
Cr-51	Ci	*	*	*	*	*
Mn-54	Ci	1.57E-07	*	2.20E-07	*	3.77E-07
Co-57	Ci	*	*	*	*	*
Co-58	Ci	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*
Co-60	Ci	4.39E-07	8.00E-08	*	*	5.19E-07
Zn-65	Ci	*	*	*	*	*
Sr-85	Ci	*	*	*	*	*
Zr-95	Ci	*	*	*	*	*
Mo-99	Ci	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*
Sn-113	Ci	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*
Sb-125	Ci	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*
Cs-136	Ci	*	*	*	*	*
Cs-137	Ci	*	*	*	*	*
Ba-133	Ci	*	*	*	*	*
Ba-140	Ci	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*
Ce-144	Ci	*	*	*	*	*
TOTAL	Ci	5.96E-07	8.00E-08	2.97E-06	4.65E-08	3.69E-06

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

CHEMICAL CLEANING BUILDING

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-010/50-237/50-249

XX

GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

BATCH MODE

NUCLIDES RELEASED	UNIT	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	TOTAL
FISSION GASES						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-135m	Ci					
Xe-138	Ci					
TOTAL	Ci	None	None	None	None	None
IODINES						
I-131	Ci					
I-133	Ci					
I-135	Ci					
TOTAL	Ci	None	None	None	None	None
PARTICULATES						
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
Be-7	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Sr-85	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ru-103	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-136	Ci					
Cs-137	Ci					
Ba-133	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
TOTAL	Ci	None	None	None	None	None

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

DOCKET NUMBERS: 50-010/50-237/50-249

TABLE OF LOWER LIMITS OF DETECTABILITY  
FOR LIQUID EFFLUENTS

1.	FISSION/ACTIVATION GASES	μCi/ml
	Kr-87	1.00E-05
	Kr-88	1.00E-05
	Xe-133	1.00E-05
	Xe-133m	1.00E-05
	Xe-135	1.00E-05
	Xe-138	1.00E-05
2.	IODINES	μCi/ml
	I-131	1.00E-06
3.	PARTICULATES	μCi/ml
	Fe-55	1.00E-06
	Sr-89	5.00E-08
	Sr-90	5.00E-08
	Mn-54	5.00E-07
	Fe-59	5.00E-07
	Co-58	5.00E-07
	Co-60	5.00E-07
	Zn-65	5.00E-07
	Mo-99	5.00E-07
	Cs-134	5.00E-07
	Cs-137	5.00E-07
	Ce-141	5.00E-07
	Ce-144	5.00E-07
4.	OTHER	μCi/ml
	H-3	1.00E-05
	Gross Alpha	1.00E-07

The above values are the ODCM-required LLDs. Actual analyses always met the required LLDs.

DRESDEN NUCLEAR POWER STATION  
 UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
 January Through June 2000

DOCKET NUMBERS: 50-010/50-237/50-249

SUMMATION OF ALL LIQUID RELEASES

	UNITS	1 <sup>ST</sup> Quarter	2 <sup>nd</sup> Quarter	Est. Total Error, %
A. FISSION & ACTIVATION PRODUCTS				
1. Total Release (not including H-3, gases, alpha)	Ci	7.67E-03	1.45E-02	10.6%
2. Average Diluted Conc. During Period	μCi/ml	6.06E-09	1.03E-08	
3. Percent of Technical Specification Limit	%	*	*	
B. TRITIUM				
1. Total Release	Ci	3.71E+01	3.48E+01	11.4%
2. Average Diluted Conc. During Release	μCi/ml	2.93E-05	2.47E-05	
3. Percent of Technical Specification Limit	%	*	*	
C. DISSOLVED AND ENTRAINED GASES				
1. Total Release	Ci	5.28E-05	3.12E-05	5.58%
2. Average Diluted Conc. During Period	μCi/ml	4.17E-11	2.21E-11	
3. Percent of Technical Specification Limit	%	*	*	
D. GROSS ALPHA ACTIVITY				
1. Total Release	Ci	1.85E-01	<LLD	15.1%
E. VOLUME OF WASTE RELEASED (prior to dilution)				
	Liters	6.36E+06	7.20E+06	5.00%
F. VOLUME OF DILUTION WATER USED DURING PERIOD				
	Liters	1.26E+09	1.40E+09	5.00%

\*The information is contained in the Radiological Impact on Man section of the report.



DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
July Through December 2000

DOCKET NUMBERS: 50-010/50-237/50-249

SUMMATION OF ALL LIQUID RELEASES

	UNITS	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Est. Total Error, %
A. FISSION & ACTIVATION PRODUCTS				
1. Total Release (not including H-3, gases, alpha)	Ci	4.98E+00	4.58E-01	10.6%
2. Average Diluted Conc. During Period	μCi/ml	3.96E-06	6.97E-07	
3. Percent of Technical Specification Limit	%	*	*	
B. TRITIUM				
1. Total Release	Ci	6.15E+01	3.23E+01	11.4%
2. Average Diluted Conc. During Release	μCi/ml	4.90E-05	4.92E-05	
3. Percent of Technical Specification Limit	%	*	*	
C. DISSOLVED AND ENTRAINED GASES				
1. Total Release	Ci	2.98E-05	9.64E-05	5.58%
2. Average Diluted Conc. During Period	μCi/ml	2.37E-11	1.47E-10	
3. Percent of Technical Specification Limit	%	*	*	
D. GROSS ALPHA ACTIVITY				
1. Total Release	Ci	<LLD	<LLD	15.1%
E. VOLUME OF WASTE RELEASED (prior to dilution)				
	Liters	5.72E+06	7.59E+06	5.00%
F. VOLUME OF DILUTION WATER USED DURING PERIOD				
	Liters	1.25E+09	6.49E+08	5.00%

\*The information is contained in the Radiological Impact on Man section of the report.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through June 2000

RADWASTE LIQUID EFFLUENTS

DOCKET NUMBERS: 50-010/50-237/50-249

1. Number of Batch Releases: 5.10E+01
2. Total Time for Batch Releases: 1.76E+04 minutes
3. Maximum Time Period for a Batch Release: 4.77E+02 minutes
4. Average Time Period for a Batch Release: 3.45E+02 minutes
5. Minimum Time Period for a Batch Release: 1.27E+02 minutes
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: 1.51E+05 lpm

		BATCH MODE		CONTINUOUS MODE	
	Unit	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR
Fe-55	Ci	3.26E-03	7.90E-03		
Sr-89	Ci	*	*		
Sr-90	Ci	*	*		
I-131	Ci	*	*		
I-132	Ci	*	*		
I-133	Ci	*	*		
I-134	Ci	*	*		
I-135	Ci	*	*		
Cr-51	Ci	3.28E-04	5.14E-05		
Mn-54	Ci	1.26E-03	2.57E-03		
Co-58	Ci	*	*		
Fe-59	Ci	4.08E-05	*		
Co-60	Ci	2.22E-03	3.19E-03		
Zn-65	Ci	*	*		
As-76	Ci	*	*		
Zr-95	Ci	*	*		
Mo-99	Ci	*	*		
Tc-99m	Ci	*	*		
Ru-103	Ci	*	*		
Ag-110m	Ci	1.11E-05	3.27E-05		
Sb-124	Ci	*	*		
Cs-134	Ci	*	*		
Cs-137	Ci	3.10E-04	7.70E-04		
Cs-138	Ci	*	*		
Ba-140	Ci	*	*		
La-140	Ci	*	*		
Ce-141	Ci	*	*		
(above)					
Total	Ci	7.44E-03	1.45E-02	None	None
H-3	Ci	3.71E+01	3.47E+01		
Kr-87	Ci	*	*		
Kr-88	Ci	*	*		
Xe-133	Ci	5.28E-05	3.13E-05		
Xe-133m	Ci	*	*		
Xe-135	Ci	*	*		
Xe-138	Ci	*	*		

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
July Through December 2000

RADWASTE LIQUID EFFLUENTS

DOCKET NUMBERS: 50-010/50-237/50-249

1. Number of Batch Releases: 3.70E+01
2. Total Time for Batch Releases: 1.25E+04 minutes
3. Maximum Time Period for a Batch Release: 4.08E+02 minutes
4. Average Time Period for a Batch Release: 3.39E+02 minutes
5. Minimum Time Period for a Batch Release: 6.00E+00 minutes
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: 1.51E+05 lpm

		BATCH MODE		CONTINUOUS MODE	
	Unit	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR
Fe-55	Ci	7.22E-04	4.73E-03		
Sr-89	Ci	*	*		
Sr-90	Ci	*	*		
Sr-91	Ci	*	5.30E-05		
I-131	Ci	3.43E-06	*		
I-132	Ci	*	*		
I-133	Ci	*	*		
I-134	Ci	*	*		
I-135	Ci	*	*		
Cr-51	Ci	*	1.54E-03		
Mn-54	Ci	9.96E-04	1.35E-03		
Co-58	Ci	*	2.15E-04		
Fe-59	Ci	*	4.68E-04		
Co-60	Ci	2.80E-03	1.22E-03		
Zn-65	Ci	*	1.65E-03		
As-76	Ci	*	*		
Zr-95	Ci	*	*		
Mo-99	Ci	*	1.30E-05		
Tc-99m	Ci	*	2.80E-05		
Ru-103	Ci	*	*		
Ag-110m	Ci	*	8.20E-05		
Sb-124	Ci	*	*		
Cs-134	Ci	*	*		
Cs-137	Ci	5.25E-04	7.77E-05		
Cs-138	Ci	*	*		
Ba-140	Ci	*	*		
La-140	Ci	*	*		
Ce-141	Ci	*	8.06E-05		
(above)					
Total	Ci	5.05E-03	1.15E-02	None	None
H-3	Ci	6.15E+01	3.23E+01		
Kr-87	Ci	*	*		
Kr-88	Ci	*	*		
Xe-133	Ci	2.99E-05	8.07E-05		
Xe-133m	Ci	*	*		
Xe-135	Ci	*	1.58E-05		
Xe-138	Ci	*	*		

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through June 2000

CCSW LIQUID EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

1. Number of Batch Releases: 6.00E+00
2. Total Time for Batch Releases: 7.74E+00minutes
3. Maximum Time Period for a Batch Release: 1.24E+00 minutes
4. Average Time Period for a Batch Release: 1.24E+00 minutes
5. Minimum Time Period for a Batch Release: 1.24E+00 minutes
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: 9.46E+04 lpm

		BATCH MODE		CONTINUOUS MODE	
	Unit	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR
Fe-55	Ci	*	*		
Sr-89	Ci	*	*		
Sr-90	Ci	*	*		
I-131	Ci	*	*		
I-132	Ci	*	*		
I-133	Ci	*	*		
I-134	Ci	*	*		
I-135	Ci	*	*		
Cr-51	Ci	*	*		
Mn-54	Ci	*	*		
Co-58	Ci	*	*		
Fe-59	Ci	*	*		
Co-60	Ci	*	*		
Zn-65	Ci	*	*		
As-76	Ci	*	*		
Zr-95	Ci	*	*		
Mo-99	Ci	*	*		
Tc-99m	Ci	*	*		
Ru-103	Ci	*	*		
Ag-110m	Ci	*	*		
Sb-124	Ci	*	*		
Cs-134	Ci	*	*		
Cs-137	Ci	*	3.07E-06		
Cs-138	Ci	*	*		
Ba-140	Ci	*	*		
La-140	Ci	*	*		
Ce-141	Ci	*	*		
(above)					
Total	Ci	*	3.07E-06	None	None
H-3	Ci	*	*		
Kr-87	Ci	*	*		
Kr-88	Ci	*	*		
Xe-133	Ci	*	*		
Xe-133m	Ci	*	*		
Xe-135	Ci	*	*		
Xe-138	Ci	*	*		

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
July Through December 2000

CCSW LIQUID EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

1. Number of Batch Releases: 4.80E+01
2. Total Time for Batch Releases: 5.95E+01 minutes
3. Maximum Time Period for a Batch Release: 1.24E+00 minutes
4. Average Time Period for a Batch Release: 1.24E+00 minutes
5. Minimum Time Period for a Batch Release: 1.24E+00 minutes
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: 9.46E+04 lpm

		BATCH MODE		CONTINUOUS MODE	
	Unit	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR
Fe-55	Ci	9.76E-04	*		
Sr-89	Ci	*	*		
Sr-90	Ci	*	*		
I-131	Ci	*	*		
I-132	Ci	*	*		
I-133	Ci	*	*		
I-134	Ci	*	*		
I-135	Ci	*	*		
Cr-51	Ci	*	*		
Mn-54	Ci	*	*		
Co-58	Ci	*	*		
Fe-59	Ci	*	*		
Co-60	Ci	*	*		
Zn-65	Ci	*	*		
As-76	Ci	*	*		
Zr-95	Ci	*	*		
Mo-99	Ci	*	*		
Tc-99m	Ci	*	*		
Ru-103	Ci	*	*		
Ag-110m	Ci	*	*		
Sb-124	Ci	*	*		
Cs-134	Ci	*	*		
Cs-137	Ci	8.35E-06	1.94E-06		
Cs-138	Ci	*	*		
Ba-140	Ci	*	*		
La-140	Ci	*	*		
Ce-141	Ci	*	*		
(above)					
Total	Ci	9.84E-04	1.94E-06	None	None
H-3	Ci	*	*		
Kr-87	Ci	*	*		
Kr-88	Ci	*	*		
Xe-133	Ci	*	*		
Xe-133m	Ci	*	*		
Xe-135	Ci	*	*		
Xe-138	Ci	*	*		

\* The activity of this nuclide is less than the LLD.

DRESDEN NUCLEAR POWER STATION  
 UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
 January Through December 2000

DOCKET NUMBERS: 50-010/50-237/50-249

UNITS 1, 2 & 3 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL)

1. Type of Waste	Unit	12-month period	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m <sup>3</sup>	1.60E+02	± 25%
	Ci	1.02E+03	
b. Dry compressible waste, contaminated equipment, etc.	m <sup>3</sup>	1.56E+03	± 25%
	Ci	1.59E+01	
c. Irradiated components, control rods, etc.	m <sup>3</sup>	4.40E-01	± 25%
	Ci	2.79E+02	
d. Other (describe) - <b>Contaminated Soil</b>	m <sup>3</sup>	4.78E+02	± 25%
	Ci	5.34E-03	

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

a. Spent resins, filter sludges, evaporator bottoms, etc.

	<u>Percent %</u>	<u>Curies</u>
Fe-55	73.2%	7.48E+02
Co-60	17.3%	1.77E+02
Mn-54	6.11%	6.24E+01
Cs-137	1.83%	1.87E+01
Ni-63	0.84%	8.60E+00

b. Dry compressible waste, contaminated equipment, etc.

	<u>Percent %</u>	<u>Curies</u>
Fe-55	64.2%	1.02E+01
Co-60	18.6%	2.96E+00
Mn-54	11.8%	1.87E+00
Fe-59	1.55%	2.46E-01
Cr-51	1.26%	2.01E-01

c. Irradiated components, control rods, etc.

	<u>Percent %</u>	<u>Curies</u>
Co-60	55.7%	1.55E+02
Sb-125	26.6%	7.41E+01
Fe-55	11.9%	3.32E+01
Ni-63	4.93%	1.37E+01
Mn-54	0.40%	1.12E+00

DRESDEN NUCLEAR POWER STATION  
 UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
 January Through December 2000

DOCKET NUMBERS: 50-010/50-237/50-249

UNIT 1, 2 & 3 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS (Cont.)

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

d. Other - Contaminated Soil

	<u>Percent %</u>	<u>Curies</u>
H-3	81.8%	4.37E-03
Cs-137	8.60%	4.59E-04
Fe-55	4.06%	2.17E-04
Ni-63	2.57%	1.37E-04
Co-60	2.28%	1.22E-04

3. Solid Waste Description

<u>NUMBER OF SHIPMENTS</u>	<u>MODE OF TRANSPORTATION</u>	<u>DESTINATION</u>
10	Motor Freight (exclusive use only)	CNS, Barnwell, SC
8	Motor Freight (exclusive use only)	AERC, Oak Ridge, TN
49	Motor Freight (exclusive use only)	GTS Duratek, Oak Ridge, TN
17	Motor Freight (exclusive use only)	GTS Duratek, Kingston, TN
11	Motor Freight (exclusive use only)	ATG, Oak Ridge, TN
6	Motor Freight (exclusive use only)	ATG, Richland, WA
16	Motor Freight (exclusive use only)	Studsvik, Erwin, TN

B. IRRADIATED FUEL SHIPMENTS (Disposition)

<u>NUMBER OF SHIPMENTS</u>	<u>MODE OF TRANSPORTATION</u>	<u>DESTINATION</u>
None		

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

DOCKET NUMBER: 50-010/50-237/50-249

ABNORMAL RELEASES\*

A. LIQUID

1.	Number of Releases:	<u>5</u>
2.	Total Activity Releases:	<u>5.69E+00 Ci</u>

B. GASEOUS

1.	Number of Releases:	<u>4</u>
2.	Total Activity Releases:	<u>2.67E-04 Ci</u>

A.1 In June, 1994, elevated tritium levels were discovered in the on-site storm sewers. The highest storm drain concentration, 4.02E+03 pCi/l from the 1<sup>st</sup> quarter was used for all of 2000. The total activity released is based on an estimated typical discharge flow of 10 gallons per minute. An estimated 8.02E-02 Ci of H-3 may have been released into the environment. Various storm sewer locations on-site are periodically analyzed for Tritium.

A.2 On March 9<sup>th</sup>, a packing leak was discovered on the 2/3-2342-500 valve (Condensate Storage Tank HPCI Return Line). Based on visual inspections of the leak, a total volume of 10 gallons is estimated to have leaked from the packing. It is estimated that 2.39E-04 Ci of Co-60 may have been released to the environment.

A.3 Monthly service water grab samples are sent offsite for analyses of H-3, Fe-55, Sr-89/90 and gross alpha and are analyzed onsite for gamma-emitting radionuclides. Results from samples taken in January, July, September and December show gross alpha and/or Fe-55 activity above the LLD. Specifically, 5.42E+00 Ci of Fe-55 and 1.85E-01 Ci of gross alpha activity are assumed to have been released in service water during 2000.

A.4 On August 28<sup>th</sup> approximately one (1) gallon of water from the 1A Condensate Return Storage Tank (CST) was spilled in the area surrounding the tank. The water was discovered coming from a pump being used to process the contents of the tank. A sample from the tank contents was used to establish the radionuclide concentration of the spilled liquid:

Co-60	2.81E-07 $\mu$ Ci/cc
Cs-137	8.24E-07 $\mu$ Ci/cc

Based upon this analysis it is estimated that a total of 4.18E-09 Ci was discharged to the environment.

A.5 From December 22-31, approximately 150 gallons of water from the Heating Steam system leaked from the piping in the Units 2/3 Cribhouse. Isotopic analysis of leaked water confirmed the presence of Co-60 at 1.401E-07  $\mu$ Ci/cc. Based upon this analysis, it is estimated that a total of 7.96E-08 Ci was discharged to the environment.

\* These releases are included in the Effluents Summation of all Releases Tables and in the Radiological Impact on Man.



DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

DOCKET NUMBER: 50-010/50-237/50-249

ABNORMAL RELEASES\* (Continued)

- B.1 The Unit 1 Main Turbine Floor (MTF) is used as an area to work on contaminated equipment. The ventilation, which exhausts through the Unit 1 Main Chimney, is no longer operational and the floor is at ambient pressure with the outside environment. With radiological work activities being performed on the MTF, the potential exists for airborne activity to be released to the environment through various potential release points. The estimated release through these points is 3.6E-05 Ci per year of Cs-137.
- B.2 The Chemistry Hotlab ventilation exhausts directly into the environment without any monitoring. The calculated release to the environment is 1.59E-04 Ci of noble gases and 6.86E-06 Ci of iodines/particulates.
- B.3 The Unit 2/3 heating steam system has low-level contamination present. During operation of the system, some steam is vented directly into the environment. The estimated activity released to the environment from this system during 2000 is as follows:

Am-241	5.30E-08 Ci	Tc-99	3.86E-08 Ci
Co-60	1.05E-06 Ci	Mn-54	1.99E-07 Ci
Cs-137	1.18E-07 Ci	Sb-124	1.86E-08 Ci
Mo-99	3.53E-08 Ci	Zn-69m	1.11E-08 Ci

- B.4 From past radiological surveys it was identified that the East Turbine Building Ventilation was found to be contaminated. This ventilation vents directly to the environment, therefore, a postulated release is calculated. The following activity is estimated to have been released via this pathway:

Mn-54	2.44E-06 Ci
Co-60	4.53E-06 Ci
Cs-137	2.54E-06 Ci
Ba-139	5.43E-05 Ci

\* These releases are included in the Effluents Summation of all Releases Tables and in the Radiological Impact on Man.

DRESDEN NUCLEAR POWER STATION  
 UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
 January Through December 2000

DOCKET NUMBER: 50-010

RADIOLOGICAL IMPACT ON MAN\*

UNIT 1

1. Airborne Releases

	Percentage of Quarterly Objective					Yearly Obj.	Percentage of Yearly Obj.
	Quarterly Obj.	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air	5.0 mrad	0.00 (e)	0.00 (e)	0.00 (e)	0.00 (e)	10.0 mrad	0.00 (e)
Beta Air	10.0 mrad	0.00 (e)	0.00 (e)	0.00 (e)	0.00 (e)	20.0 mrad	0.00 (e)
Total Body	2.5 mrem	0.00 (e)	0.00 (e)	0.00 (e)	0.00 (e)	5.0 mrem	0.00 (e)
Skin	7.5 mrem	0.00 (e)	0.00 (e)	0.00 (e)	0.00 (e)	15.0 mrem	0.00 (e)
Organ	7.5 mrem	0.00 (c)	0.00 (c)	0.00 (c)	0.01 (c)	15.0 mrem	0.01 (c)
Critical Organ		Lung	Liver	Liver	Bone		Liver

2. Liquid Releases

	Percentage of Quarterly Objective					Yearly Obj.	Percentage of Yearly Obj.
	Quarterly Obj.	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body	1.5 mrem	None	None	None	None	3.0 mrem	None
Organ	5.0 mrem	None	None	None	None	10.0 mrem	None
Critical Organ		None	None	None	None		None

\* The doses reported include abnormal releases. These doses are the highest among the four analyzed receptors as described in parentheses [(i)=infant, (c)=child, (t)=teenager, (a)=adult, (e)=every receptor has the same value].

DRESDEN NUCLEAR POWER STATION  
UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
January Through December 2000

DOCKET NUMBER: 50-237

RADIOLOGICAL IMPACT ON MAN\*

UNIT 2

1. Airborne Releases

	Percentage of Quarterly Objective					Yearly Obj.	Percentage of Yearly Obj.
	Quarterly Obj.	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air	5.0 mrad	0.00 (e)	0.00 (e)	0.00 (e)	0.00 (e)	10.0 mrad	0.01 (e)
Beta Air	10.0 mrad	0.00 (e)	0.00 (e)	0.00 (e)	0.00 (e)	20.0 mrad	0.00 (e)
Total Body	2.5 mrem	0.00 (e)	0.00 (e)	0.01 (e)	0.00 (e)	5.0 mrem	0.01 (e)
Skin	7.5 mrem	0.00 (e)	0.00 (e)	0.00 (e)	0.00 (e)	15.0 mrem	0.00 (e)
Organ	7.5 mrem	0.01 (c,t)	0.00 (c)	0.01 (c)	0.01 (c)	15.0 mrem	0.01 (c)
Critical Organ		Lung	Thyroid	Thyroid	Thyroid		Thyroid

2. Liquid Releases

	Percentage of Quarterly Objective					Yearly Obj.	Percentage of Yearly Obj.
	Quarterly Obj.	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body	1.5 mrem	0.01 (a)	0.01 (a)	0.03 (c)	0.01 (c)	3.0 mrem	0.03 (c)
Organ	5.0 mrem	0.00 (c)	0.01 (c)	0.03 (c)	0.00 (c)	10.0 mrem	0.02 (c)
Critical Organ		Liver	Liver	Bone	Liver		Bone

\* The doses reported include abnormal releases. These doses are the highest among the four analyzed receptors as described in parentheses [(i)=infant, (c)=child, (t)=teenager, (a)=adult, (e)=every receptor has the same value].

DRESDEN NUCLEAR POWER STATION  
 UNITS 1, 2 AND 3 RADIOACTIVE EFFLUENT RELEASE REPORT  
 January Through December 2000

DOCKET NUMBER: 50-249

RADIOLOGICAL IMPACT ON MAN\*

UNIT 3

1. Airborne Releases

	Percentage of Quarterly Objective					Yearly Obj.	Percentage of Yearly Obj.
	Quarterly Obj.	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air	5.0 mrad	0.01 (e)	0.01 (e)	0.01 (e)	0.01 (e)	10.0 mrad	0.02 (e)
Beta Air	10.0 mrad	0.00 (e)	0.00 (e)	0.00 (e)	0.00 (e)	20.0 mrad	0.00 (e)
Total Body	2.5 mrem	0.02 (e)	0.02 (e)	0.02 (e)	0.01 (e)	5.0 mrem	0.03 (e)
Skin	7.5 mrem	0.01 (e)	0.01 (e)	0.01 (e)	0.00 (e)	15.0 mrem	0.01 (e)
Organ	7.5 mrem	0.03 (c)	0.09 (c)	0.12 (c)	0.07 (c)	15.0 mrem	0.15 (c)
Critical Organ		Thyroid	Thyroid	Thyroid	Thyroid		Thyroid

2. Liquid Releases

	Percentage of Quarterly Objective					Yearly Obj.	Percentage of Yearly Obj.
	Quarterly Obj.	1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body	1.5 mrem	0.01 (a)	0.01 (a)	0.06 (c)	0.01 (c)	3.0 mrem	0.05 (c)
Organ	5.0 mrem	0.00 (c)	0.01 (c)	0.09 (c)	0.01 (c)	10.0 mrem	0.05 (c)
Critical Organ		Liver	Liver	Bone	Bone		Bone

\* The doses reported include abnormal releases. These doses are the highest among the four analyzed receptors as described in parentheses [(i)=infant, (c)=child, (t)=teenager, (a)=adult, (e)=every receptor has the same value].

ComEd DRESDEN STATION  
35 ft. WIND SPEED and WIND DIRECTION

January-March 2000  
150-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2174  
VALUES ARE PERCENT OCCURRENCE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
C	EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
M	MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05					.05		
E	ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
1	EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.05						
	MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	N	.09	.05	.00	.00	.09	.09	.00	.14	.00	.05	.00	.14	.05	.00	.05	.09	.83						
	SS	.41	.37	.05	.28	.09	.23	.18	.32	.18	.14	.41	.23	.18	.14	.28	.28	3.77						
	MS	.32	.18	.05	.05	.05	.18	.14	.14	.14	.32	.41	.28	.37	.28	.41	.23	3.54						
	ES	.05	.05	.00	.00	.05	.05	.00	.18	.09	.14	.14	.14	.28	.23	.37	.14	1.89						
	EU	.09	.05	.28	.00	.00	.05	.00	.00	.00	.05	.00	.05	.05	.09	.14	.18	1.01						
4	MU	.09	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.09	.32		.32					
	SU	.14	.09	.09	.00	.00	.00	.00	.00	.00	.09	.05	.05	.00	.00	.09	.60		.60					
	N	.41	.51	.60	.51	.87	.64	.23	.51	.92	.23	.23	.41	.32	.37	.37	.32	7.45						
	SS	.60	.51	.46	.87	1.66	.60	.37	1.15	1.79	1.33	.46	.14	1.56	.60	1.06	1.10	14.26						
	MS	.00	.00	.37	.23	.14	.32	.18	.09	.37	.92	1.01	.18	1.20	1.33	.46	.32	7.13						
	ES	.00	.00	.00	.05	.09	.46	.00	.00	.14	.37	.74	.18	.00	.23	.14	.09	2.48						
	EU	.28	.28	.05	.09	.05	.14	.09	.00	.00	.00	.05	.05	.05	.32	.28	.23	1.93	1.93					
	MU	.00	.18	.00	.05	.00	.00	.14	.00	.00	.00	.05	.23	.05	.09	.00	.14	.92	.92					
8	SU	.00	.00	.00	.05	.09	.14	.05	.00	.09	.09	.05	.14	.09	.09	.00	.14	1.01		1.01				
	N	.46	.60	.55	.64	1.24	1.01	.46	.32	.87	.46	.41	.64	.87	1.33	.92	.92	11.73						
	SS	.46	.64	.97	.55	.97	.97	.37	1.70	2.81	1.43	1.06	.74	2.39	1.47	1.56	.97	19.04						
	MS	.00	.09	.05	.09	.23	.23	.00	.00	.05	.18	.18	.05	.00	.00	.00	.00	1.15						
	ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
	EU	.00	.18	.14	.00	.00	.00	.00	.00	.00	.00	.09	.05	.41	.78	.23	.14	2.02	2.02					
	MU	.00	.00	.00	.00	.05	.00	.00	.00	.05	.05	.14	.14	.09	.14	.05	.09	.78	.78					
	SU	.00	.05	.00	.00	.00	.05	.00	.00	.05	.14	.23	.05	.09	.09	.09	.05	.87	.87					
1	N	.00	.09	.00	.00	.37	.55	.09	.87	.83	.92	.32	.37	.74	1.15	.46	.74	7.50			7.50			
	SS	.00	.18	.18	.00	.00	.05	.09	1.01	1.43	.74	.37	.74	.55	.37	.37	.32	6.39			6.39			
	MS	.00	.00	.05	.00	.00	.00	.00	.05	.05	.00	.05	.00	.00	.00	.00	.00	.18			.18			
	ES	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05					.05	

January-March 2000  
150-35 ft. DIFFERENTIAL TEMPERATURE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05	.05						
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.09		.09					
9 SU	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.09			.09				
- N	.00	.00	.00	.00	.00	.00	.00	.28	.51	.14	.09	.05	.37	.05	.00	.00	1.47				1.47			
2 SS	.00	.00	.00	.00	.00	.00	.00	.46	.32	.14	.00	.05	.05	.00	.00	.00	1.01					1.01		
4 MS	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05						.05	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00					
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00				
- N	.00	.00	.00	.00	.00	.00	.00	.00	.09	.05	.00	.00	.00	.00	.00	.00	.14				.14			
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.14					.14		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
TOT	3.40	4.14	3.91	3.45	6.03	5.75	2.39	7.27	10.99	7.87	6.58	5.15	9.80	9.25	7.31	6.72	100.00	5.06	2.12	2.58	29.12	44.62	12.10	4.42

### Wind Direction by Stability

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
	.37	.51	.46	.09	.05	.18	.09	.00	.00	.05	.14	.14	.51	1.24	.64	.60	5.06	Extremely Unstable
	.09	.23	.00	.05	.05	.00	.14	.00	.05	.05	.18	.46	.14	.28	.09	.32	2.12	Moderately Unstable
	.14	.14	.09	.05	.09	.18	.05	.00	.23	.23	.37	.23	.23	.18	.09	.28	2.58	Slightly Unstable
	.97	1.24	1.15	1.15	2.58	2.30	.78	2.12	3.22	1.84	1.06	1.61	2.35	2.90	1.79	2.07	29.12	Neutral
1.	4.7	1.70	1.66	1.70	2.71	1.84	1.01	4.65	6.67	3.77	2.30	1.89	4.74	2.58	3.27	2.67	44.62	Slightly Stable
	.32	.28	.51	.37	.41	.74	.32	.32	.60	1.43	1.66	.51	1.56	1.61	.92	.55	12.10	Moderately Stable
	.05	.05	.05	.05	.14	.51	.00	.18	.23	.51	.87	.32	.28	.46	.51	.23	4.42	Extremely Stable

### Wind Direction by Wind Speed

[illegible]

ComEd DRESDEN STATION  
35 ft. WIND SPEED and WIND DIRECTION

April-June 2000  
150-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2181  
VALUES ARE PERCENT OCCURRENCE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES								
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	
C	EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
	SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
	A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
	L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
M	MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				.00			
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
3	EU	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00		.05				
	MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
	SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05	.05							
	A N	.14	.23	.14	.14	.09	.09	.32	.05	.09	.14	.18	.05	.18	.23	.09	.09	2.25							2.25
	L SS	.55	.18	.32	.37	.32	.09	.09	.55	.18	.28	.32	.18	.23	.14	.41	.60	4.81							4.81
M	MS	.05	.05	.14	.23	.14	.46	.37	.46	.09	.05	.23	.14	.55	.41	.78	.46	4.59				4.59			
ES	.05	.09	.00	.00	.18	.28	.14	.23	.09	.37	.37	.05	.18	.09	.18	.23	2.52	2.52							
4	EU	.18	.41	.60	.09	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.46	1.79	1.79	.92		.83	11.14	18.39	5.87	1.24
	MU	.05	.28	.14	.14	.14	.00	.00	.00	.00	.05	.00	.00	.00	.00	.05	.09	.92							
	SU	.00	.05	.00	.05	.09	.09	.00	.00	.00	.00	.05	.00	.09	.09	.05	.28	.83							
	A N	.37	.60	.64	.73	1.01	.55	.55	.41	1.01	.78	.64	1.05	1.05	.55	.41	.78	11.14							
	L SS	.92	.60	2.06	1.60	1.65	1.05	.60	1.83	1.83	1.28	.37	.64	1.05	1.01	1.05	.83	18.39							
M	MS	.14	.14	.37	.00	.32	.60	.50	.41	.50	.78	.78	.14	.46	.37	.18	.18	5.87				5.87			
ES	.05	.00	.05	.00	.05	.18	.05	.05	.00	.14	.50	.00	.00	.05	.05	.09	1.24	1.24							
8	EU	.00	.37	.50	.18	.00	.00	.00	.00	.09	.14	.23	.09	.55	.09	.28	2.52	2.52	.60	1.05	10.32	14.26	1.28	.05	
	MU	.05	.05	.00	.05	.00	.00	.05	.05	.00	.00	.14	.05	.09	.05	.05	.00	.60							
	SU	.00	.05	.05	.09	.05	.00	.09	.09	.00	.00	.00	.14	.09	.23	.05	.14	1.05							
	A N	.28	.83	.64	.55	.55	.28	.46	.83	.73	1.24	1.28	.69	.55	.50	.50	.41	10.32							
	L SS	.69	.55	.73	.50	.32	.96	.41	1.51	2.38	2.11	1.51	.50	.46	.64	.78	.18	14.26							
M	MS	.00	.00	.05	.05	.00	.09	.00	.00	.14	.50	.32	.05	.05	.00	.05	.00	1.28				1.28			
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05	.05							
3	EU	.00	.00	.32	.05	.00	.00	.00	.05	.05	.14	.18	.09	.18	.41	.37	.18	2.02	2.02	.69		.92	5.18	5.50	.05
	MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.09	.18	.05	.05	.14	.09	.69							
	SU	.09	.00	.00	.00	.00	.00	.00	.09	.05	.23	.09	.09	.14	.09	.05	.00	.92							
	A N	.14	.09	.00	.00	.00	.00	.05	.50	.87	1.10	.64	.28	.18	.87	.28	.18	5.18							
	L SS	.28	.05	.14	.00	.05	.50	.05	.23	1.05	1.05	.55	.18	.46	.18	.14	.60	5.50							
M	MS	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05				.05			
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00

April-June 2000

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05	.05						
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05		.05					
9 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05			.05				
- N	.00	.00	.00	.00	.00	.00	.00	.05	.18	.18	.09	.00	.00	.00	.00	.00	.50				.50			
2 SS	.00	.00	.00	.00	.00	.09	.05	.00	.05	.09	.05	.00	.00	.00	.00	.00	.32					.32		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00					
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00				
N	.00	.00	.00	.00	.00	.00	.00	.09	.05	.00	.00	.00	.00	.00	.00	.00	.14				.14			
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05						.05	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
TOT	3.99	4.59	6.88	4.81	5.04	5.36	3.76	7.47	9.35	10.77	8.67	4.72	6.14	6.56	5.73	6.14	100.00	6.42	2.25	2.89	29.53	43.28	11.83	3.81

### Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.18	.78	1.42	.32	.05	.05	.00	.05	.05	.23	.32	.32	.28	1.01	.46	.92	6.42	Extremely Unstable
.09	.32	.14	.18	.14	.00	.05	.05	.00	.14	.28	.23	.14	.09	.23	.18	2.25	Moderately Unstable
.09	.09	.05	.14	.14	.09	.09	.18	.05	.23	.23	.23	.32	.41	.14	.41	2.89	Slightly Unstable
.92	1.74	1.42	1.42	1.65	.92	1.38	1.93	2.93	3.44	2.84	2.06	1.97	2.15	1.28	1.47	29.53	Neutral
2.43	1.38	3.26	2.48	2.34	2.71	1.19	4.13	5.50	4.81	2.80	1.51	2.20	1.97	2.38	2.20	43.28	Slightly Stable
.18	.18	.55	.28	.50	1.15	.87	.87	.73	1.38	1.33	.32	1.05	.78	1.01	.64	11.83	Moderately Stable
.09	.09	.05	.00	.23	.46	.18	.28	.09	.55	.87	.05	.18	.14	.23	.32	3.81	Extremely Stable

### Wind Direction by Wind Speed

[illegible]



ComEd DRESDEN STATION  
35 ft. WIND SPEED and WIND DIRECTION

July-September 2000  
150-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2208  
VALUES ARE PERCENT OCCURRENCE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00					
C SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00				
A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				.00			
L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00		
M MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
EU	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05						
MU	.05	.00	.00	.00	.00	.00	.00	.05	.05	.00	.00	.00	.00	.00	.00	.00	.14		.14					
1 SU	.00	.00	.00	.05	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.09			.09				
N	.36	.18	.14	.14	.00	.05	.00	.00	.05	.14	.14	.09	.09	.00	.23	.27	1.86				1.86			
3 SS	1.09	.68	.32	.32	.27	.27	.27	.41	.23	.36	.41	.41	.32	.27	.50	.95	7.07					7.07		
MS	.68	.32	.23	.23	.27	.27	.14	.45	.32	.36	.41	.14	.41	.59	.95	1.18	6.93						6.93	
ES	.14	.00	.00	.05	.00	.09	.23	.09	.05	.41	.32	.09	.05	.27	1.09	.41	3.26							3.26
EU	.86	.86	1.13	.54	.50	.23	.27	.36	.18	.09	.00	.32	.41	.18	.45	1.04	7.43	7.43						
MU	.05	.05	.27	.14	.14	.05	.05	.00	.09	.09	.05	.00	.14	.05	.41	.18	1.72		1.72					
4 SU	.23	.23	.18	.14	.14	.14	.00	.14	.23	.14	.00	.14	.05	.05	.23	.27	2.26			2.26				
N	.82	.77	.95	.82	.91	.18	.41	.54	.91	.50	.23	.54	.41	.91	.86	.86	10.60				10.60			
7 SS	.91	1.27	3.08	1.95	2.17	1.00	1.04	2.85	2.54	1.86	.82	.68	1.59	.68	.77	.68	23.87					23.87		
MS	.27	.05	.00	.00	.18	.68	.50	.63	.27	.86	.63	.05	.18	.23	.50	.41	5.43						5.43	
ES	.00	.00	.05	.00	.00	.14	.05	.00	.09	.14	.54	.09	.00	.00	.00	.00	1.09							1.09
EU	.23	.18	.45	.23	.23	.45	.27	.36	.27	1.00	.32	.68	.32	.09	.14	.27	5.48	5.48						
MU	.00	.05	.05	.05	.00	.05	.05	.09	.36	.27	.09	.18	.05	.00	.00	.00	1.27		1.27					
8 SU	.00	.05	.14	.05	.05	.05	.18	.14	.18	.23	.14	.23	.09	.05	.05	.00	1.59			1.59				
N	.05	.18	.59	.09	.41	.27	.63	.68	1.13	1.18	.72	.86	.54	.14	.18	.09	7.74				7.74			
1 SS	.00	.05	.72	.09	.77	.82	.72	1.09	2.54	.82	.45	.23	.36	.09	.14	.00	8.88					8.88		
2 MS	.00	.00	.00	.00	.00	.09	.14	.14	.23	.09	.00	.05	.00	.05	.00	.00	.77						.77	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
EU	.00	.00	.00	.00	.00	.00	.05	.00	.18	.23	.14	.00	.00	.00	.00	.00	.59	.59						
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.09	.09	.05	.00	.00	.00	.00	.00	.23		.23					
3 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.09	.00	.00	.00	.00	.00	.18			.18				
N	.00	.00	.00	.00	.00	.00	.14	.14	.14	.27	.14	.00	.00	.00	.00	.05	.86				.86			
1 SS	.00	.00	.00	.00	.00	.09	.23	.05	.05	.18	.00	.00	.00	.00	.00	.00	.59					.59		
8 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00

July-September 2000  
150-35 ft. DIFFERENTIAL TEMPERATURE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00					
9 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00				
· N	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05				.05			
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
6 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00					
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00				
· N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				.00			
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
TOT	5.71	4.94	8.29	4.85	6.02	4.89	5.34	8.29	10.14	9.38	5.66	4.76	4.98	3.62	6.48	6.66	100.00	13.54	3.35	4.12	21.11	40.40	13.13	4.35

### Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
1.09	1.09	1.59	.77	.72	.68	.59	.72	.63	1.31	.45	1.00	.72	.27	.59	1.31	13.54	Extremely Unstable
.09	.09	.32	.18	.14	.09	.09	.14	.59	.45	.18	.18	.18	.05	.41	.18	3.35	Moderately Unstable
.23	.27	.32	.23	.18	.18	.18	.32	.41	.45	.23	.36	.14	.09	.27	.27	4.12	Slightly Unstable
1.22	1.13	1.68	1.04	1.31	.50	1.18	1.40	2.22	2.08	1.22	1.49	1.04	1.04	1.27	1.27	21.11	Neutral
1.99	1.99	4.12	2.36	3.22	2.17	2.26	4.39	5.34	3.22	1.68	1.31	2.26	1.04	1.40	1.63	40.40	Slightly Stable
.95	.36	.23	.23	.45	1.04	.77	1.22	.82	1.31	1.04	.23	.59	.86	1.45	1.59	13.13	Moderately Stable
.14	.00	.05	.05	.00	.23	.27	.09	.14	.54	.86	.18	.05	.27	1.09	.41	4.35	Extremely Stable

### Wind Direction by Wind Speed

[illegible]

ComEd DRESDEN STATION  
35 ft. WIND SPEED and WIND DIRECTION

October-December 2000  
150-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2208  
VALUES ARE PERCENT OCCURRENCE

SPEED						WIND DIRECTION CLASSES												STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
MU	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05		.05						
C SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00					
A N	.09	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.23				.23				
L SS	.00	.00	.05	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00	.23	.18	.00	.54					.54			
M MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.14	.00	.18	.18							
MU	.00	.05	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.27		.27						
1 SU	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05			.05					
- N	.18	.14	.14	.00	.23	.05	.00	.09	.14	.09	.14	.00	.23	.32	.18	.27	2.17				2.17				
3 SS	.37	.46	.23	.14	.18	.27	.32	.46	.46	.23	.32	.14	.55	1.05	.55	.27	5.98					5.98			
MS	.23	.05	.18	.14	.18	.14	.23	.54	.63	.36	.54	.05	.32	.32	.41	.45	4.76						4.76		
ES	.05	.00	.05	.05	.00	.09	.14	.14	.23	.45	.59	.32	.23	.54	.27	.05	3.17						3.17		
EU	.14	.14	.05	.05	.05	.00	.00	.05	.18	.00	.18	.23	.05	.00	.27	.14	1.49	1.49							
MU	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.05	.09	.05	.00	.32		.32						
4 SU	.00	.00	.00	.00	.00	.00	.00	.14	.05	.05	.09	.05	.23	.14	.00	.09	.82			.82					
- N	.32	.45	.50	1.18	1.31	.54	.50	.50	.63	.45	.32	.50	1.49	1.77	.77	.63	11.87				11.87				
7 SS	.86	.86	1.40	.68	1.72	1.00	.50	1.00	1.09	1.04	.91	.59	1.22	1.49	1.09	.72	16.17					16.17			
MS	.05	.00	.05	.00	.14	.50	.18	.18	.82	1.04	1.45	.41	.54	.59	.05	.18	6.16						6.16		
ES	.00	.00	.00	.00	.00	.00	.00	.09	.09	.23	.27	.14	.00	.05	.05	.00	.91						.91		
EU	.00	.00	.14	.00	.00	.27	.14	.14	.05	.00	.05	.59	.41	.72	.54	.23	3.26	3.26							
MU	.09	.00	.09	.05	.00	.00	.00	.14	.00	.00	.05	.14	.09	.00	.05	.09	.77		.77						
8 SU	.00	.00	.18	.00	.00	.00	.09	.05	.05	.05	.09	.18	.18	.09	.14	.00	1.09			1.09					
- N	.68	.41	.95	.32	.59	.63	.32	.86	.45	.45	.72	1.04	2.76	2.36	.82	.59	13.95				13.95				
1 SS	.09	.23	.41	.00	.50	1.31	1.45	.68	1.45	.86	.59	.41	1.90	1.40	.63	.72	12.64					12.64			
2 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.14						.14		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		
EU	.00	.00	.00	.00	.00	.05	.00	.14	.00	.05	.27	.00	.09	.00	.09	.00	.68	.68							
1 MU	.00	.00	.00	.00	.00	.00	.00	.05	.00	.18	.09	.05	.00	.00	.00	.00	.36		.36						
3 SU	.00	.00	.00	.00	.00	.05	.00	.00	.00	.09	.23	.00	.18	.00	.00	.00	.54			.54					
- N	.00	.00	.00	.00	.00	.23	.14	.36	.36	.59	.45	.72	2.58	1.09	.41	.41	7.34				7.34				
1 SS	.00	.05	.14	.00	.00	.18	.41	.27	.72	.18	.14	.09	.23	.14	.05	.14	2.72					2.72			
8 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		

ComEd DRESDEN STATION  
35 ft. WIND SPEED and WIND DIRECTION

October-December 2000  
150-35 ft. DIFFERENTIAL TEMPERATURE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05	.05						
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00					
9 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05			.05				
- N	.00	.00	.00	.00	.00	.36	.00	.00	.00	.09	.00	.18	.41	.09	.00	.14	1.27				1.27			
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00

EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00				
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00			
N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05				.05		
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00	
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00

TOT 3.13 2.90 4.71 2.58 5.03 5.66 4.40 5.98 7.39 6.66 7.57 5.84 13.73 12.51 6.80 5.12 100.00 5.66 1.77 2.54 36.87 38.04 11.05 4.08

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.14	.14	.18	.05	.05	.32	.14	.32	.23	.05	.59	.82	.54	.72	1.04	.36	5.66	Extremely Unstable
.09	.05	.27	.05	.00	.00	.00	.32	.00	.18	.14	.18	.14	.14	.14	.09	1.77	Moderately Unstable
.00	.00	.18	.00	.05	.05	.09	.18	.09	.23	.41	.23	.59	.23	.14	.09	2.54	Slightly Unstable
1.27	1.09	1.59	1.49	2.13	1.81	.95	1.81	1.59	1.68	1.63	2.49	7.47	5.62	2.22	2.04	36.87	Neutral
1.32	1.59	2.22	.82	2.49	2.76	2.67	2.40	3.72	2.31	1.95	1.22	3.90	4.31	2.50	1.86	38.04	Slightly Stable
.27	.05	.23	.14	.32	.63	.41	.72	1.45	1.54	1.99	.45	.86	.91	.45	.63	11.05	Moderately Stable
.05	.00	.05	.05	.00	.09	.14	.23	.32	.68	.86	.45	.23	.59	.32	.05	4.08	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-
.09	.09	.09	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00	.23	.23	.00	.82	C A L M
.82	.68	.73	.32	.64	.55	.68	1.23	1.45	1.13	1.63	.50	1.32	2.27	1.59	1.04	16.58	1.0 - 3.5 mph
1.36	1.45	1.99	1.90	3.22	2.04	1.18	2.08	2.85	2.81	3.22	1.90	3.58	4.12	2.26	1.77	37.73	3.6 - 7.5 mph
.86	.63	1.77	.36	1.09	2.22	1.99	1.86	1.99	1.49	1.49	2.36	5.34	4.57	2.17	1.63	31.84	7.6 - 12.5 mph
.00	.05	.14	.00	.00	.50	.54	.82	1.09	1.09	1.18	.86	3.08	1.22	.54	.54	11.64	12.6 - 18.5 mph
.00	.00	.00	.00	.00	.36	.00	.00	.00	.14	.05	.18	.41	.09	.00	.14	1.36	18.6 - 24.5 mph
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.05	> 24.5 mph

ComEd DRESDEN STATION  
300 ft. WIND SPEED and WIND DIRECTION

January-March 2000  
300-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2170  
VALUES ARE PERCENT OCCURRENCE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
C SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00			
A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				.00		
L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00	
M MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
MU	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.05					
1 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00			
- N	.05	.05	.00	.00	.05	.09	.14	.05	.00	.05	.00	.00	.05	.00	.00	.00	.51				.51			
3 SS	.05	.00	.05	.05	.09	.00	.05	.00	.05	.00	.05	.05	.00	.14	.00	.00	.55					.55		
MS	.05	.00	.05	.05	.05	.00	.09	.14	.09	.09	.09	.00	.05	.05	.00	.18	.97						.97	
ES	.00	.00	.00	.00	.00	.00	.05	.00	.05	.14	.05	.00	.00	.00	.05	.00	.32							.32
EU	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05						
MU	.05	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.05	.00	.23	.23	.23					
4 SU	.05	.00	.09	.05	.00	.00	.00	.00	.00	.05	.05	.00	.09	.00	.00	.00	.37			.37				
- N	.23	.32	.23	.37	.14	.32	.28	.51	1.06	.41	.37	.46	.60	.00	.18	.18	5.67				5.67			
7 SS	.09	.14	.18	.46	.05	.14	.23	.23	.05	.18	.18	.23	.09	.14	.09	.05	2.53				2.53			
MS	.00	.18	.09	.00	.05	.09	.14	.00	.09	.05	.09	.14	.09	.18	.18	.14	1.52					1.52		
ES	.00	.00	.00	.00	.05	.05	.00	.09	.09	.00	.00	.00	.00	.00	.00	.00	.28							.28
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.09	.09						
MU	.00	.05	.14	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.28	.14	.78	.78	.78					
8 SU	.14	.05	.00	.05	.05	.05	.14	.05	.00	.05	.09	.18	.05	.09	.18	.05	1.20			1.20				
- N	.46	.55	1.01	1.80	1.06	.69	.74	.46	1.43	.41	.46	.23	.78	.51	.60	.46	11.66				11.66			
1 SS	.23	.28	.28	.46	.60	.23	.41	.32	.23	.41	.32	.14	.18	.23	.18	.18	4.70				4.70			
2 MS	.14	.18	.14	.00	.09	.00	.23	.18	.23	.14	.37	.09	.41	.18	.28	.09	2.76					2.76		
ES	.00	.00	.00	.00	.05	.00	.00	.00	.05	.05	.00	.00	.00	.14	.18	.00	.46							.46
EU	.00	.00	.00	.00	.00	.00	.05	.00	.05	.00	.00	.00	.05	.00	.09	.23	.23	.23						
1 MU	.05	.00	.00	.00	.00	.05	.14	.00	.09	.00	.09	.14	.05	.18	.05	.05	.88	.88	.88					
3 SU	.18	.18	.00	.00	.00	.05	.09	.00	.09	.09	.14	.32	.05	.05	.05	.05	1.34			1.34				
- N	.74	1.34	.74	.92	1.66	.97	.32	.41	1.11	1.20	.55	.83	1.15	1.57	.92	1.20	15.62				15.62			
1 SS	.46	.14	.05	.00	.69	.60	.51	.37	1.75	2.03	.88	.41	1.80	.97	1.01	.41	12.07				12.07			
8 MS	.23	.14	.00	.00	.00	.00	.23	.00	.00	.23	.69	.74	.69	.60	.83	.46	4.84					4.84		
ES	.00	.00	.00	.00	.05	.00	.00	.00	.05	.05	.14	.00	.09	.09	.23	.00	.69							.69

ComEd DRESDEN STATION  
300 ft. WIND SPEED and WIND DIRECTION

January-March 2000  
300-35 ft. DIFFERENTIAL TEMPERATURE

SPEED ----- WIND DIRECTION CLASSES -----																	----- STABILITY CLASSES -----							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.23	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.23	.00	.00	.60	.60						
1 MU	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.14	.28	.05	.05	.65		.65					
9 SU	.09	.23	.05	.00	.00	.00	.00	.00	.00	.09	.14	.00	.18	.23	.14	.14	1.29			1.29				
- N	.23	.83	.18	.00	.60	.55	.05	1.11	1.06	.88	.46	.32	1.11	1.80	1.15	1.20	11.52				11.52			
2 SS	.18	.00	.00	.00	.05	.09	.23	.92	1.52	.92	.37	.65	.55	.78	.46	.46	7.19					7.19		
4 MS	.28	.00	.00	.00	.00	.05	.14	.00	.00	.41	.09	.23	.00	.09	.05	.23	1.57						1.57	
ES	.00	.00	.00	.00	.00	.09	.00	.00	.00	.14	.00	.00	.00	.00	.00	.05	.28							.28
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.00	.00	.14	.14						
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.05	.09	.00	.00	.23		.23					
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.28	.05	.00	.14	.00	.00	.09	.00	.55			.55				
N	.00	.09	.05	.00	.00	.00	.00	.65	1.24	.37	.14	.28	.60	.32	.28	.23	4.24				4.24			
2 SS	.00	.00	.00	.00	.00	.00	.00	.28	.37	.18	.14	.32	.09	.00	.00	.00	1.38					1.38		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
TOT	4.06	5.02	3.41	4.29	5.35	4.10	4.24	5.76	11.11	8.71	5.99	5.90	9.12	9.31	7.56	6.08	100.00	1.11	2.81	4.75	49.22	28.43	11.66	2.03

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.05	.23	.05	.00	.00	.00	.05	.00	.05	.00	.00	.00	.14	.46	.00	.09	1.11	Extremely Unstable
.14	.09	.18	.09	.00	.05	.14	.00	.18	.05	.14	.14	.28	.69	.41	.23	2.81	Moderately Unstable
.46	.46	.14	.09	.05	.09	.23	.05	.37	.32	.41	.65	.37	.37	.46	.23	4.75	Slightly Unstable
1.71	3.18	2.21	3.09	3.50	2.63	1.52	3.18	5.90	3.32	1.98	2.12	4.29	4.19	3.13	3.27	49.22	Neutral
1.01	.55	.55	.97	1.47	1.06	1.43	2.12	3.96	3.73	1.94	1.80	2.72	2.26	1.75	1.11	28.43	Slightly Stable
.69	.51	.28	.05	.18	.14	.83	.32	.41	.92	1.34	1.20	1.24	1.11	1.34	1.11	11.66	Moderately Stable
.00	.00	.00	.00	.14	.14	.05	.09	.23	.37	.18	.00	.09	.23	.46	.05	2.03	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	C A L M
.18	.05	.09	.09	.18	.09	.32	.18	.18	.28	.18	.05	.09	.18	.05	.18	2.40	1.0 - 3.5 mph
.46	.65	.65	.88	.28	.60	.65	.83	1.29	.69	.69	.83	.92	.37	.51	.37	10.65	3.6 - 7.5 mph
.97	1.11	1.57	2.40	1.84	.97	1.52	1.01	1.94	1.06	1.24	.65	1.43	1.34	1.71	.92	21.66	7.6 - 12.5 mph
1.66	1.80	.78	.92	2.40	1.66	1.34	.78	3.13	3.59	2.49	2.44	3.82	3.50	3.09	2.26	35.67	12.6 - 18.5 mph
.78	1.34	.28	.00	.65	.78	.41	2.03	2.58	2.49	1.11	1.20	2.07	3.41	1.84	2.12	23.09	18.6 - 24.5 mph
.00	.09	.05	.00	.00	.00	.00	.92	1.98	.60	.28	.74	.78	.51	.37	.23	6.54	> 24.5 mph

ComEd DRESDEN STATION  
300 ft. WIND SPEED and WIND DIRECTION

April-June 2000  
300-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2122  
VALUES ARE PERCENT OCCURRENCE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES													
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES						
C	EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
	MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00													
	SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00													
	A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00													
	L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00												
M	MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00														
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00	.00	.05	1.37	.28	.47	
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00													
1 SU	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05													
- N	.05	.05	.14	.05	.09	.14	.00	.05	.05	.19	.05	.05	.19	.05	.14	.09	1.37													
3 SS	.05	.00	.00	.05	.00	.00	.05	.05	.00	.05	.00	.00	.00	.05	.00	.00	.28													
M	MS	.00	.00	.09	.00	.05	.05	.00	.00	.05	.00	.00	.05	.09	.09	.00	.47	.24	.24	.28	7.92	2.92	2.07	.33						
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05	.14	.00	.00														
EU	.00	.14	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19								.19	.28	1.04	7.92	2.92	2.07
MU	.05	.05	.19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.28													
4 SU	.05	.19	.24	.09	.05	.00	.00	.05	.00	.05	.00	.00	.14	.09	.00	.09	1.04													
- N	.61	.19	.52	.71	.52	.33	.61	.38	.71	.52	.38	.24	.71	.28	.71	.52	7.92													
7 SS	.19	.14	.14	.90	.24	.09	.05	.33	.28	.09	.24	.05	.05	.05	.05	.05	2.92													
M	MS	.00	.00	.05	.09	.24	.05	.05	.09	.14	.24	.14	.19	.05	.14	.38	.24	2.07	.33	.33	1.04	7.07	3.49	.52						
ES	.00	.05	.00	.05	.05	.00	.00	.00	.00	.00	.05	.00	.00	.09	.00	.05	.33													
EU	.09	.09	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.33	.33							.94	1.04	13.34	7.07	3.49	
MU	.09	.14	.28	.09	.00	.00	.00	.00	.00	.00	.05	.09	.00	.05	.00	.14	.94													
8 SU	.05	.14	.19	.09	.09	.05	.05	.05	.00	.00	.09	.00	.00	.05	.05	.14	1.04													
- N	.75	.75	.80	2.36	1.46	.57	.24	.61	.99	1.13	1.23	.85	.52	.38	.24	.47	13.34													
1 SS	.42	.47	.42	.57	.61	.38	.42	.57	.71	.42	.28	.24	.90	.19	.33	.14	7.07													
2	MS	.14	.38	.14	.05	.00	.05	.33	.47	.38	.05	.09	.28	.33	.14	.47	.19	3.49	.52	.52	12.25	12.87	3.16	.47						
ES	.00	.05	.00	.00	.00	.00	.00	.05	.05	.00	.05	.14	.00	.00	.09	.09	.52													
EU	.00	.28	.05	.14	.00	.00	.00	.00	.00	.05	.14	.09	.00	.00	.05	.14	.94	.94							.85	1.93	12.25	12.87	3.16	
1 MU	.00	.00	.05	.00	.00	.00	.05	.00	.09	.28	.05	.00	.00	.09	.09	.14	.85													
3 SU	.00	.09	.05	.00	.00	.00	.00	.24	.14	.05	.19	.33	.19	.33	.24	.09	1.93													
- N	.71	.90	.94	.33	.75	.52	.33	1.18	.94	1.27	1.08	.66	.57	.80	.61	.66	12.25													
1 SS	.28	.28	.80	.09	.42	.75	.52	1.23	1.70	2.40	1.18	.85	.47	.71	.94	.24	12.87													
8	MS	.28	.19	.05	.05	.00	.24	.33	.24	.09	.28	.24	.47	.14	.28	.09	.19	3.16	.47	.47	12.25	12.87	3.16							
ES	.00	.00	.09	.00	.00	.05	.09	.00	.05	.00	.00	.05	.09	.00	.00	.05	.47													

ComEd DRESDEN STATION  
300 ft. WIND SPEED and WIND DIRECTION

April-June 2000  
300-35 ft. DIFFERENTIAL TEMPERATURE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.05	.33	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.09	.71	.71						
1 MU	.00	.05	.00	.00	.00	.00	.00	.00	.09	.00	.00	.28	.09	.28	.09	.09	.99		.99					
9 SU	.00	.00	.05	.00	.00	.00	.00	.05	.09	.33	.14	.14	.05	.19	.19	.05	1.27			1.27				
N	.47	.94	.33	.00	.05	.61	.09	.52	.80	1.27	.90	.24	.38	.71	.75	.52	8.58			8.58				
2 SS	.05	.14	.14	.00	.05	.05	.05	.09	1.13	1.56	1.60	.61	.09	.33	.24	.05	6.17					6.17		
4 MS	.05	.00	.05	.00	.00	.00	.00	.00	.09	.38	.28	.05	.00	.00	.00	.00	.90						.90	
ES	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	.00	.00	.00	.00	.00	.09							.09
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
G MU	.00	.00	.05	.00	.00	.00	.00	.05	.00	.00	.00	.00	.05	.05	.00	.00	.19		.19					
T SU	.00	.00	.00	.00	.00	.00	.00	.05	.09	.00	.14	.00	.09	.24	.00	.05	.66			.66				
N	.61	.24	.00	.00	.00	.28	.00	.00	.19	.19	.24	.14	.05	.61	.14	.24	2.92			2.92				
2 SS	.00	.05	.00	.00	.00	.00	.09	.05	.19	.24	.09	.05	.24	.14	.00	.05	1.18					1.18		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
TOT	5.00	6.03	6.27	5.70	4.71	4.19	3.39	6.36	9.00	11.07	9.00	6.08	5.47	6.79	5.98	4.95	100.00	2.17	3.25	5.98	46.37	30.49	10.08	1.65

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.09	.57	.47	.14	.00	.00	.00	.00	.00	.05	.14	.09	.00	.24	.05	.33	2.17	Extremely Unstable
.14	.24	.57	.09	.00	.00	.05	.05	.19	.28	.09	.38	.14	.47	.19	.38	3.25	Moderately Unstable
.09	.42	.52	.19	.19	.05	.05	.42	.33	.42	.57	.47	.47	.90	.47	.42	5.98	Slightly Unstable
3.20	3.06	2.73	3.44	2.87	2.45	1.27	2.73	3.68	4.57	3.86	2.17	2.40	2.83	2.59	2.50	46.37	Neutral
.99	1.08	1.51	1.60	1.32	1.27	1.18	2.31	4.01	4.76	3.39	1.79	1.74	1.46	1.56	.52	30.49	Slightly Stable
.47	.57	.38	.19	.28	.38	.71	.80	.71	.99	.75	.99	.57	.66	1.04	.61	10.08	Moderately Stable
.00	.09	.09	.05	.05	.05	.14	.05	.09	.00	.19	.19	.14	.24	.09	.19	1.65	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	C A L M
.09	.05	.24	.09	.19	.19	.05	.09	.05	.28	.09	.05	.28	.33	.24	.09	2.40	1.0 - 3.5 mph
.90	.75	1.18	1.84	1.08	.47	.71	.85	1.13	.90	.80	.47	.94	.66	1.13	.94	14.75	3.6 - 7.5 mph
1.56	2.03	1.89	3.16	2.17	1.04	1.04	1.74	2.12	1.60	1.79	1.60	1.74	.80	1.18	1.27	26.72	7.6 - 12.5 mph
1.27	1.74	2.03	.61	1.18	1.56	1.32	2.87	3.02	4.34	2.87	2.45	1.46	2.21	2.03	1.51	32.47	12.6 - 18.5 mph
.57	1.18	.90	.00	.09	.66	.19	.66	2.21	3.53	2.97	1.32	.61	1.74	1.27	.80	18.71	18.6 - 24.5 mph
.61	.28	.05	.00	.00	.28	.09	.14	.47	.42	.47	.19	.42	1.04	.14	.33	4.95	> 24.5 mph



ComEd DRESDEN STATION  
300 ft. WIND SPEED and WIND DIRECTION

July-September 2000  
300-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2180  
VALUES ARE PERCENT OCCURRENCE

SPEED		WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	
C	EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
	MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00								
	SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00								
	N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00								
	SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
M	MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00			
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		
3	EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.87	.55	.46	.14
	MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00								
	SU	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05								
	N	.05	.14	.00	.05	.14	.00	.00	.09	.05	.05	.14	.05	.00	.09	.05	.87								
	SS	.00	.00	.00	.14	.00	.05	.05	.00	.05	.00	.05	.05	.00	.05	.09	.05	.55							
	MS	.05	.14	.09	.09	.00	.00	.05	.00	.00	.00	.00	.05	.00	.00	.00	.00	.46							
	ES	.00	.00	.00	.05	.00	.00	.05	.00	.00	.05	.00	.00	.00	.00	.00	.00	.14							
	EU	.14	.18	.18	.05	.00	.00	.00	.05	.00	.00	.00	.05	.05	.00	.00	.00	.69							
7	MU	.00	.14	.09	.18	.14	.09	.05	.14	.05	.00	.09	.05	.00	.05	.05	1.10		1.10	2.16	5.96	4.04	1.93	.46	
	SU	.05	.18	.23	.41	.28	.00	.09	.09	.23	.14	.00	.14	.09	.09	.09	.05	2.16							
	N	.46	.46	.23	1.10	.78	.23	.28	.37	.41	.41	.23	.32	.14	.14	.32	.09	5.96							
	SS	.05	.28	.50	.92	.41	.14	.37	.14	.14	.09	.23	.05	.37	.09	.18	.09	4.04							
	MS	.14	.14	.23	.28	.14	.05	.09	.18	.14	.09	.09	.14	.09	.05	.09	.00	1.93							
	ES	.05	.09	.05	.00	.00	.00	.00	.05	.00	.00	.00	.05	.05	.05	.09	.00	.46							
	EU	.18	.23	.46	.05	.14	.18	.00	.00	.00	.18	.00	.09	.05	.05	.00	.23	1.83	1.83						
	MU	.09	.32	.55	.14	.09	.14	.32	.28	.18	.28	.05	.09	.28	.05	.09	.32	3.26							3.26
8	SU	.18	.28	.09	.32	.14	.32	.23	.28	.23	.14	.18	.37	.14	.09	.41	.37	3.76		3.76	14.77	11.93	3.99	.96	
	N	.55	1.19	1.47	1.79	1.06	.28	.92	.78	1.42	1.15	.50	.73	.78	.64	.87	.64	14.77							
	SS	.23	1.10	1.51	.64	1.19	.73	.69	.69	.78	1.10	.78	.64	.55	.55	.46	.28	11.93							
	MS	.14	.60	.23	.05	.09	.05	.32	.64	.09	.37	.23	.32	.37	.09	.28	.14	3.99							
	ES	.23	.00	.00	.00	.00	.00	.00	.00	.09	.09	.05	.14	.18	.00	.18	.00	.96							
1	EU	.18	.00	.00	.00	.00	.00	.00	.09	.14	.14	.00	.05	.00	.00	.05	.64	.64	1.28	1.97	10.83	13.67	4.54	.55	
	MU	.09	.18	.09	.00	.05	.14	.09	.05	.09	.14	.14	.18	.05	.00	.00	.00	1.28							
	SU	.23	.05	.05	.00	.05	.05	.05	.00	.37	.50	.05	.23	.14	.00	.09	.14	1.97							
	N	.83	.96	.92	.14	.37	.50	.55	.73	1.38	1.01	.78	.55	.37	.18	.46	1.10	10.83							
	SS	.32	.60	.73	.37	.73	1.24	.60	1.83	2.48	2.16	.50	.64	.69	.41	.09	.28	13.67							
8	MS	.23	.46	.00	.00	.00	.37	.55	.46	.23	.64	.50	.41	.14	.09	.09	.37	4.54							
	ES	.18	.00	.00	.00	.00	.00	.05	.00	.00	.09	.05	.00	.00	.05	.14	.55								

ComEd DRESDEN STATION  
300 ft. WIND SPEED and WIND DIRECTION

July-September 2000  
300-35 ft. DIFFERENTIAL TEMPERATURE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.05	.05	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.23	.41	.41						
1 MU	.05	.05	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.23		.23					
9 SU	.05	.05	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.05	.00	.28			.28				
N	.09	.32	.14	.00	.00	.00	.23	.05	.23	.18	.28	.05	.00	.00	.09	.05	1.70				1.70			
2 SS	.00	.05	.05	.00	.14	.41	.05	.00	1.15	.55	.14	.05	.14	.05	.00	.28	3.03					3.03		
4 MS	.28	.00	.00	.00	.00	.05	.00	.05	.14	.32	.18	.09	.00	.00	.00	.18	1.28						1.28	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.23	.00	.00	.00	.00	.00	.28							.28

EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00				
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00				
N	.00	.00	.00	.00	.00	.00	.05	.05	.00	.00	.00	.00	.00	.00	.05	.00	.14				.14			
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.05	.14	.00	.00	.00	.00	.00	.00	.18					.18		
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.09						.09	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00

TOT 5.14 8.21 7.89 6.79 5.92 5.00 5.69 6.88 10.18 10.28 5.55 5.50 4.82 2.71 4.22 5.23 100.00 3.58 5.87 8.21 34.27 33.39 12.29 2.39

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.55	.46	.64	.09	.14	.18	.00	.05	.18	.32	.14	.09	.14	.09	.00	.50	3.58	Extremely Unstable
.23	.69	.73	.32	.28	.37	.46	.46	.32	.55	.18	.37	.37	.05	.14	.37	5.87	Moderately Unstable
.50	.55	.37	.78	.46	.37	.37	.37	.83	.78	.37	.73	.37	.18	.64	.55	8.21	Slightly Unstable
1.97	3.07	2.75	3.07	2.34	1.01	2.02	1.97	3.53	2.80	1.83	1.79	1.33	.96	1.88	1.93	34.27	Neutral
.60	2.02	2.80	2.06	2.48	2.57	1.74	2.66	4.63	4.04	1.70	1.42	1.74	1.15	.83	.96	33.39	Slightly Stable
.83	1.33	.55	.41	.23	.50	1.01	1.33	.60	1.51	1.01	.96	.64	.23	.46	.69	12.29	Moderately Stable
.46	.09	.05	.05	.00	.00	.09	.05	.09	.28	.32	.14	.23	.05	.28	.23	2.39	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	C A L M
.09	.28	.09	.37	.14	.05	.14	.00	.14	.09	.09	.18	.09	.05	.18	.09	2.06	1.0 - 3.5 mph
.87	1.47	1.51	2.94	1.74	.50	.87	1.01	.96	.73	.55	.73	.83	.46	.78	.37	16.33	3.6 - 7.5 mph
1.61	3.72	4.31	2.98	2.71	1.70	2.48	2.66	2.80	3.30	1.79	2.39	2.34	1.47	2.29	1.97	40.50	7.6 - 12.5 mph
2.06	2.25	1.79	.50	1.19	2.29	1.88	3.07	4.63	4.68	2.16	2.02	1.42	.69	.78	2.06	33.49	12.6 - 18.5 mph
.50	.50	.18	.00	.14	.46	.28	.09	1.61	1.24	.96	.18	.14	.05	.14	.73	7.20	18.6 - 24.5 mph
.00	.00	.00	.00	.00	.00	.05	.05	.05	.23	.00	.00	.00	.00	.05	.00	.41	> 24.5 mph

ComEd DRESDEN STATION  
300 ft. WIND SPEED and WIND DIRECTION

October-December 2000  
300-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2023  
VALUES ARE PERCENT OCCURRENCE

SPEED	WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00					
C SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00				
A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				.00			
L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00		
M MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00					
1 SU	.00	.00	.05	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10			.10				
- N	.05	.15	.15	.10	.00	.15	.10	.00	.00	.05	.10	.05	.00	.05	.10	.05	1.09				1.09			
3 SS	.00	.10	.05	.00	.05	.00	.05	.00	.00	.10	.05	.05	.10	.10	.00	.05	.69					.69		
MS	.00	.00	.00	.00	.05	.00	.00	.05	.10	.00	.15	.05	.10	.05	.00	.00	.54						.54	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05	.00	.00	.10							.10
EU	.00	.00	.05	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.10						
MU	.15	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	.30		.30					
4 SU	.05	.10	.05	.00	.05	.00	.00	.05	.00	.00	.05	.10	.15	.00	.05	.00	.64			.64				
- N	.44	.15	.25	.74	.54	.49	.40	.79	.25	.20	.30	.30	.40	.49	.44	.44	6.62				6.62			
7 SS	.15	.15	.00	.40	.30	.05	.15	.35	.20	.20	.20	.44	.20	.30	.49	.25	3.81					3.81		
MS	.05	.20	.05	.20	.15	.15	.20	.30	.20	.15	.25	.15	.20	.10	.25	.00	2.57						2.57	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.00	.25							.25
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.15	.00	.00	.20	.20						
MU	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.25	.05	.05	.10	.10	.64		.64					
8 SU	.05	.00	.00	.00	.00	.05	.05	.15	.15	.00	.05	.25	.10	.00	.05	.05	.94			.94				
- N	.20	.44	.89	1.19	.84	.35	.35	.84	.25	.40	.49	.84	2.13	.84	.99	.44	11.47				11.47			
1 SS	.35	.25	.49	.40	.30	.25	.54	1.04	.40	.74	.99	1.14	.20	.44	.69	.25	8.45					8.45		
2 MS	.10	.15	.10	.10	.10	.00	.20	.44	.00	.30	.25	.74	.74	.35	.20	.10	3.86						3.86	
ES	.05	.15	.05	.00	.00	.00	.00	.00	.00	.05	.00	.00	.20	.20	.00	.05	.74							.74
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.15	.20	.00	.44	.44						
1 MU	.00	.00	.00	.00	.00	.05	.10	.05	.00	.00	.10	.10	.20	.20	.15	.00	.94		.94					
3 SU	.00	.00	.00	.00	.00	.10	.00	.30	.00	.20	.20	.25	.05	.40	.10	.00	1.58			1.58				
- N	.69	.54	.99	.15	.69	.54	.40	.94	.59	.89	1.29	1.33	3.26	2.42	.89	.69	16.31				16.31			
1 SS	.35	.30	.35	.00	.69	.64	1.14	.54	.79	1.43	.64	.89	1.58	1.48	.35	.54	11.72					11.72		
8 MS	.35	.05	.00	.00	.00	.20	.44	.05	.40	.54	.40	.20	.15	.40	.25	.44	3.86						3.86	
ES	.10	.00	.00	.00	.00	.00	.00	.00	.05	.25	.10	.00	.54	.10	.20	.00	1.33							1.33

ComEd DRESDEN STATION  
300 ft. WIND SPEED and WIND DIRECTION

October-December 2000  
300-35 ft. DIFFERENTIAL TEMPERATURE

SPEED	WIND DIRECTION CLASSES																	STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
1 MU	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05	.15	.00	.05	.00	.05	.10	.44		.44						
9 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.05	.05	.00	.05	.10	.35			.35					
- N	.35	.20	.05	.00	.10	.15	.35	.35	.79	.44	.49	.99	2.72	1.04	1.09	.69	9.79				9.79				
2 SS	.15	.05	.00	.00	.15	.44	.64	.05	1.09	.64	.30	.00	.35	.35	.00	.35	4.55					4.55			
4 MS	.05	.00	.00	.00	.00	.05	.00	.00	.15	.35	.00	.00	.15	.20	.00	.05	.99						.99		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	.10	.00	.05	.10	.00	.00	.40							.40	
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00						
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05			.05					
N	.00	.05	.05	.00	.00	.64	.00	.00	.20	.10	.05	.30	1.38	.44	.00	.30	3.51				3.51				
2 SS	.00	.05	.00	.00	.00	.05	.00	.25	.20	.10	.00	.00	.00	.00	.00	.00	.64					.64			
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00	
TOT	3.66	3.06	3.61	3.41	4.00	4.45	5.09	6.57	5.78	7.41	6.72	8.80	15.22	10.43	6.67	5.09	100.00	.74	2.32	3.66	48.79	29.86	11.81	2.82	

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-	
.00	.00	.05	.05	.00	.00	.00	.00	.00	.00	.00	.00	.15	.30	.20	.00	.74	Extremely Unstable	
.15	.00	.00	.05	.00	.15	.10	.10	.00	.05	.25	.40	.30	.25	.30	.25	2.32	Moderately Unstable	
.10	.10	.10	.05	.05	.15	.05	.49	.15	.30	.35	.64	.35	.40	.25	.15	3.66	Slightly Unstable	
1.73	1.53	2.37	2.17	2.17	2.32	1.58	2.92	2.08	2.08	2.72	3.81	9.89	5.29	3.51	2.62	48.79	Neutral	
.99	.89	.89	.79	1.48	1.43	2.52	2.22	2.67	3.21	2.17	2.52	2.42	2.67	1.53	1.43	29.86	Slightly Stable	
.54	.40	.15	.30	.30	.40	.84	.84	.84	1.33	1.04	1.14	1.33	1.09	.69	.59	11.81	Moderately Stable	
.15	.15	.05	.00	.00	.00	.00	.00	.05	.44	.20	.30	.79	.44	.20	.05	2.82	Extremely Stable	

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	C A L M	
.05	.25	.25	.15	.10	.15	.15	.05	.10	.15	.30	.20	.20	.25	.10	.10	2.52	1.0 - 3.5 mph	
.84	.59	.40	1.43	1.04	.69	.74	1.48	.64	.54	.79	1.29	.94	.89	1.24	.74	14.29	3.6 - 7.5 mph	
.74	.99	1.53	1.68	1.24	.74	1.14	2.47	.79	1.48	1.78	3.21	3.46	2.03	2.03	.99	26.30	7.6 - 12.5 mph	
1.48	.89	1.33	.15	1.38	1.53	2.08	1.88	1.83	3.31	2.72	2.77	5.88	5.14	2.13	1.68	36.18	12.6 - 18.5 mph	
.54	.25	.05	.00	.25	.64	.99	.44	2.03	1.68	1.09	1.04	3.36	1.68	1.19	1.29	16.51	18.6 - 24.5 mph	
.00	.10	.05	.00	.00	.69	.00	.25	.40	.25	.05	.30	1.38	.44	.00	.30	4.20	> 24.5 mph	