Commonwealth Edison Company
Dresden Generating Station
6500 North Dresden Road
Morris, IL 60450
Tel #(815)942-2920

ComEd

March 31, 1998

JMHLTR: #98-0036

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

Subject: Dresden Nuclear Power Station
Radioactive Effluent Report
NRC Dockets 50-10, 50-237, 50-249

The Radioactive Effluent Report for January through December 1997 for Dresden Nuclear Power Station is submitted in accordance with section 6.9.A.4 of the Dresden Technical Specifications and 10CFR 50.362.

Questions concerning this report should be directed to the Radiation Protection Manager, Mr. Lary Aldrich at Dresden Station (815) 942-2920 extension 2233.

Sincerely,

J.M. Heffley
Site Vice President
Dresden Station

Enclosure

cc: See Attached Distribution

1/1

Ie48

Annual Report Distribution

NRC Senior Resident Inspector
Dresden Station

A. Bill Beach
USNRC Regional Administrator
U.S. Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Il. 60532

Lawrence Rossbach
Dresden Project Manager
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

Gary Shear
Chief, Plant Support Branch 2
Division of Reactor Safety
U.S. Nuclear Regulatory Commission Region III
801 Warrenville Road
Lisle, Il. 60532
(two copies)

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Suite 300S
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Frank Niziolek
Illinois Department of Nuclear Safety
1035 Outer Park Drive
Springfield, Il. 62704

U.S. Environmental Protection Agency
Air and Radiation Division, Region V
Health Physicist (AT-18J)
77 West Jackson Blvd
Chicago, Il. - 60604-3590

Ellen Saar
Teledyne
700 Landwehr Rd
Northbrook, Il. 60062-2310

Ellen Murphy
ODCM Coordinator
HPSD
ETW III - 8th Floor

Nuclear Licensing Operations
Licensing Operations Director
ETW II - 5th Floor

Lisa Kemper
Murray and Trettel, Inc.
414 West Frontage Road
Northfield, Il. 60093-30[illegible]

Radiation Protection Manager
Radiation Protection Department
Dresden

REMP Coordinator
Radiation Protection Department
Dresden

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

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.

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.

EGAMMA = 6.31E-01 MeV/dis
EBETA = 4.69E-01 MeV/dis

4. Measurements and Approximations of Total Radioactivity

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

The Chimneys and Reactor Building Vent are continually monitored 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.

The average flow at the release points are used to calculate the curies released. For the Unit 1 Chimney the design basis flow is used to calculate curies released.

d. Liquid Effluents

The river discharge tanks are analyzed before discharge by gamma isotopic. A composite representative portion of this sample is saved. This is composited with other discharges that occurred during the sample period. The composite is sent to a vendor for gross alpha, H-3, Fe-55, Sr-89-90 analysis.

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

No ODCM required effluent monitors were out of service for 30 or more continuous days in 1997.

g. Estimation of Data:

In November 1997 while the U2/3 Main Chimney SPING was being calibrated, it was discovered that the sample flow did not correspond to the flow calculated by the SPING . The measured flow through the SPING was 53 l/min while the display was reading 70 l/min (PIF D1997-07991). This is non conservative. It was assumed that inleakage started immediately following the previous calibration (May 1996). Based on the ratio of the above flows, the concentration reported could be roughly 30% higher. In order to compensate for the lower concentration, the concentrations, µCi/cc, were conservatively multiplied by a factor of 1.5 for samples collected by the SPING.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

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

SUMMATION OF ALL GASEOUS RELEASES

TYPE OF RELEASE

		UNITS	1st Quarter	2nd Quarter	EST. TOTAL ERROR, %
A.	FISSION AND ACTIVATION GASES				
1.	Total Release	Ci	8.10E+01	6.61E+00	7.31E+00
2.	Average Release Rate for Period	µCi/sec	1.04E+01	8.41E-01	
3.	Percent of Technical Specification Limit	%	*	*	
B.	IODINES				
1.	Total Iodine-131	Ci	3.06E-03	4.39E-04	2.16E+01
2.	Average Release Rate of I-131 for Period	µCi/sec	3.94E-04	5.58E-05	
3.	Percent of Technical Specification Limit	%	*	*	
4.	Total Iodine-131, Iodine-133 and Iodine-135	Ci	7.22E-03	2.10E-03	
C.	PARTICULATES				
1.	Particulates with half-lives > 8 days	Ci	1.65E-03	3.17E-03	3.41E+01
2.	Average Release Rate for Period	µCi/sec	2.12E-04	4.03E-04	
3.	Percent of Technical Specification Limit	%	*	*	
4.	Gross Alpha Radioactivity	Ci	<LLD	7.81E-07	
D.	TRITIUM				
1.	Total Release	Ci	1.07E+00	1.17E+00	7.89E+00
2.	Average Release Rate for Period	µCi/sec	1.38E-01	1.49E-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 is provided which includes fission and activation gases, iodines, particulates, and tritium.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

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

SUMMATION OF ALL GASEOUS RELEASES

TYPE OF RELEASE

		UNITS	3rd Quarter	4th Quarter	EST. TOTAL ERROR, %
A.	FISSION AND ACTIVATION GASES				
1.	Total Release	Ci	6.01E+01	9.48E+01	7.31E+00
2.	Average Release Rate for Period	µCi/sec	7.64E+00	1.19E+01	
3.	Percent of Technical Specification Limit	%	*	*	
B.	IODINES				
1.	Total Iodine-131	Ci	1.13E-03	1.23E-03	2.16E+01
2.	Average Release Rate of I-131 for Period	µCi/sec	1.43E-04	1.55E-04	
3.	Percent of Technical Specification Limit	%	*	*	
4.	Total Iodine-131, Iodine-133 and Iodine-135	Ci	1.59E-02	1.80E-02	
C.	PARTICULATES				
1.	Particulates with half-lives > 8 days	Ci	2.19E-03	9.64E-04	3.41E+01
2.	Average Release Rate for Period	µCi/sec	2.79E-04	1.21E-04	
3.	Percent of Technical Specification Limit	%	*	*	
4.	Gross Alpha Radioactivity	Ci	4.94E-08	3.09E-06	
D.	TRITIUM				
1.	Total Release	Ci	1.38E+00	2.34E+00	7.89E+00
2.	Average Release Rate for Period	µCi/sec	1.76E-01	2.94E-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 is provided which includes fission and activation gases, iodines, particulates, and tritium.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through December 1997

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
UNIT 1 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

D1 MAIN CHIMNEY | GASEOUS EFFLUENTS | DOCKET NUMBERS: 50-010

	GROUND LEVEL RELEASES
	SEMI-ELEVATED RELEASES
XX	ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT		1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
FISSION GASES							
Ar-41	Ci		*	*	*	*	*
Kr-85	Ci		*	*	*	*	*
Kr-85m	Ci		*	*	*	*	*
Kr-87	Ci		*	*	*	*	*
Kr-88	Ci		*	*	*	*	*
Xe-133	Ci		*	*	*	*	*
Xe-135	Ci		*	*	*	*	*
Xe135m	Ci		*	*	*	*	*
Xe-138	Ci		*	*	*	*	*
TOTAL	Ci		*	*	*	*	*
IODINES							
I-131	Ci		*	*	*	*	*
I-133	Ci		*	*	*	*	*
I-135	Ci		*	*	*	*	*
TOTAL	Ci		*	*	*	*	*
PARTICULATES							
Fe-55	Ci		8.43E-06	2.44E-07	*	6.30E-07	9.30E-06
Sr-89	Ci		*	*	*	*	*
Sr-90	Ci		*	*	*	*	*
Cr-51	Ci		*	*	*	*	*
Mn-54	Ci		1.07E-06	*	1.32E-07	1.73E-07	1.38E-06
Co-58	Ci		*	*	*	*	*
Fe-59	Ci		*	*	*	*	*
Co-60	Ci		5.38E-06	2.36E-06	1.06E-05	2.88E-06	2.12E-05
Zr-95	Ci		*	*	*	*	*
Mo-99	Ci		*	*	*	*	*
Ru-103	Ci		*	*	*	*	*
Ag-110m	Ci		*	*	*	*	*
Sb-124	Ci		*	*	*	*	*
I-131	Ci		*	*	*	*	*
Cs-134	Ci		*	*	*	*	*
Cs-136	Ci		*	*	*	*	*
Cs-137	Ci		2.71E-05	*	*	*	2.71E-05
Ba-140	Ci		*	*	*	*	*
Ce-141	Ci		*	*	*	*	*
Ce-144	Ci		*	*	*	*	*
Zn-65	Ci		*	*	*	*	*
Ba-133	Ci		*	*	7.65E-07	*	*
Sb-125	Ci		*	*	*	*	*
Sn-113	Ci		*	*	*	5.18E-07	5.18E-07
TOTAL	Ci		4.20E-05	2.61E-06	1.15E-05	4.20E-06	5.95E-05

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNIT 1 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

D1 MAIN CHIMNEY

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-010

GROUND LEVEL RELEASES

SEMI-ELEVATED RELEASES

XX ELEVATED RELEASES

BATCH MODE

NUCLIDES RELEASED	UNIT		1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
FISSION GASES							
Ar-41	Ci						
Kr-85	Ci						
Kr-85m	Ci						
Kr-87	Ci						
Kr-88	Ci						
Xe-133	Ci						
Xe-135	Ci						
Xe135m	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						
Cr-51	Ci						
Mn-54	Ci						
Co-58	Ci						
Fe-59	Ci						
Co-60	Ci						
Zr-95	Ci						
Mo-99	Ci						
Ru-103	Ci						
Ag-110m	Ci						
Sb-124	Ci						
I-131	Ci						
Cs-134	Ci						
Cs-136	Ci						
Cs-137	Ci						
Ba-140	Ci						
La-140	Ci						
Ce-141	Ci						
Ce-144	Ci						
Zn-65	Ci						
Ba-133	Ci						
Sb-125	Ci						
Sn-113	Ci						
TOTAL	Ci		None	None	None	None	None

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNIT 1 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

D1 MAIN CHIMNEY

GASEOUS EFFLUENTS
GROUND LEVEL RELEASES
SEMI-ELEVATED RELEASES
XX ELEVATED RELEASES

DOCKET NUMBERS: 50-010

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	JANUARY	FEBRUARY	MARCH	1st QTR	APRIL	MAY	JUNE	2nd QTR
FISSION GASES									
Kr-85	Ci	*	*	*	*	*	*	*	*
Kr-85m	Ci	*	*	*	*	*	*	*	*
Kr-87	Ci	*	*	*	*	*	*	*	*
Kr-88	Ci	*	*	*	*	*	*	*	*
Xe-133	Ci	*	*	*	*	*	*	*	*
Xe-135	Ci	*	*	*	*	*	*	*	*
Xe135m	Ci	*	*	*	*	*	*	*	*
Xe-138	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	*	*	*	*	*	*	*	*
IODINES									
I-131	Ci	*	*	*	*	*	*	*	*
I-133	Ci	*	*	*	*	*	*	*	*
I-135	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	*	*	*	*	*	*	*	*
PARTICULATES									
Fe-55	Ci	2.83E-06	2.64E-06	2.96E-06	8.43E-06	2.44E-07	*	*	2.44E-07
Sr-89	Ci	*	*	*	*	*	*	*	*
Sr-90	Ci	*	*	*	*	*	*	*	*
Cr-51	Ci	*	*	*	*	*	*	*	*
Mn-54	Ci	*	2.45E-07	8.25E-07	1.07E-06	*	*	*	*
Co-58	Ci	*	*	*	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-60	Ci	2.05E-06	1.65E-06	1.68E-06	5.38E-06	9.67E-07	1.11E-06	2.84E-07	2.36E-06
Zr-95	Ci	*	*	*	*	*	*	*	*
Mo-99	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
I-131	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Cs-136	Ci	*	*	*	*	*	*	*	*
Cs-137	Ci	2.71E-05	*	*	2.71E-05	*	*	*	*
Ba-140	Ci	*	*	*	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*	*	*	*
Ce-144	Ci	*	*	*	*	*	*	*	*
Zn-65	Ci	*	*	*	*	*	*	*	*
Ba-133	Ci	*	*	*	*	*	*	*	*
Sb-125	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	3.20E-05	4.54E-06	5.47E-06	4.20E-05	1.21E-06	1.11E-06	2.84E-07	2.61E-06

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNIT 1 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

D1 MAIN CHIMNEY

GASEOUS EFFLUENTS
GROUND LEVEL RELEASES
SEMI-ELEVATED RELEASES
XX ELEVATED RELEASES

DOCKET NUMBERS: 50-010

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	JULY	AUGUST	SEPT.	3rd QTR	OCT.	NOV.	DEC.	4th QTR
FISSION GASES									
Kr-85	Ci	*	*	*	*	*	*	*	*
Kr-85m	Ci	*	*	*	*	*	*	*	*
Kr-87	Ci	*	*	*	*	*	*	*	*
Kr-88	Ci	*	*	*	*	*	*	*	*
Xe-133	Ci	*	*	*	*	*	*	*	*
Xe-135	Ci	*	*	*	*	*	*	*	*
Xe135m	Ci	*	*	*	*	*	*	*	*
Xe-138	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	*	*	*	*	*	*	*	*
IODINES									
I-131	Ci	*	*	*	*	*	*	*	*
I-133	Ci	*	*	*	*	*	*	*	*
I-135	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	*	*	*	*	*	*	*	*
PARTICULATES									
Fe-55	Ci	*	*	*	*	1.99E-07	2.12E-07	2.19E-07	6.30E-07
Sr-89	Ci	*	*	*	*	*	*	*	*
Sr-90	Ci	*	*	*	*	*	*	*	*
Cr-51	Ci	*	*	*	*	*	*	*	*
Mn-54	Ci	*	1.32E-07	*	1.32E-07	1.73E-07	*	*	1.73E-07
Co-58	Ci	*	*	*	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-60	Ci	3.41E-06	2.85E-06	4.31E-06	1.06E-05	1.96E-06	6.13E-07	3.05E-07	2.88E-06
Zr-95	Ci	*	*	*	*	*	*	*	*
Mo-99	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
I-131	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Cs-136	Ci	*	*	*	*	*	*	*	*
Cs-137	Ci	*	*	*	*	*	*	*	*
Ba-140	Ci	*	*	*	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*	*	*	*
Ce-144	Ci	*	*	*	*	*	*	*	*
Zn-65	Ci	*	*	*	*	*	*	*	*
Ba-133	Ci	7.65E-07	*	*	7.65E-07	*	*	*	*
Sb-125	Ci	*	*	*	*	*	*	*	*
Sn-113	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	4.18E-06	2.98E-06	4.31E-06	1.15E-05	2.33E-06	8.25E-07	5.24E-07	3.68E-06

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

D2/3 REACTOR BUILDING VENT | GASEOUS EFFLUENTS | DOCKET NUMBERS: 50-237/50-249

XX

GROUND LEVEL RELEASES
SEMI-ELEVATED RELEASES
ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT		1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
FISSION GASES							
Ar-41	Ci						
Kr-85	Ci		*	*	*	*	*
Kr-85m	Ci		*	*	*	*	*
Kr-87	Ci		*	*	*	*	*
Kr-88	Ci		*	*	*	*	*
Xe-133	Ci		8.76E-06	1.15E+00	*	*	1.15E+00
Xe-135	Ci		6.82E-05	*	4.51E-07	1.12E-04	1.81E-04
Xe135m	Ci		7.05E-05	*	*	*	7.05E-05
Xe-138	Ci		*	*	*	*	*
TOTAL	Ci		1.47E-04	1.15E+00	4.51E-07	1.12E-04	1.15E+00
IODINES							
I-131	Ci		7.27E-05	1.57E-05	2.55E-05	4.46E-04	5.60E-04
I-133	Ci		6.14E-04	9.11E-05	9.26E-05	1.37E-04	9.35E-04
I-135	Ci		2.46E-04	2.49E-04	2.79E-04	1.37E-04	9.11E-04
TOTAL	Ci		9.33E-04	3.56E-04	3.97E-04	7.19E-04	2.40E-03
PARTICULATES							
Fe-55	Ci		1.35E-04	9.13E-04	1.62E-04	2.68E-04	1.48E-03
Sr-89	Ci		*	7.33E-06	1.02E-08	2.25E-06	9.59E-06
Sr-90	Ci		*	*	*	*	*
Na-24	Ci		*	*	8.77E-06	*	8.77E-06
Mn-54	Ci		2.84E-04	5.57E-05	1.87E-05	3.89E-05	3.97E-04
Co-58	Ci		*	2.05E-05	1.20E-06	1.36E-06	2.31E-05
Fe-59	Ci		*	*	1.22E-04	1.91E-06	1.24E-04
Co-60	Ci		2.00E-04	4.79E-04	1.55E-04	1.82E-04	1.02E-03
Zr-95	Ci		*	*	*	*	*
Mo-99	Ci		*	*	*	*	*
Ru-103	Ci		*	*	*	*	*
Ag-110m	Ci		*	*	*	*	*
Sb-124	Ci		*	*	*	*	*
I-131	Ci		*	*	*	*	*
Cs-134	Ci		*	*	*	*	*
Cs-136	Ci		*	*	*	*	*
Cs-137	Ci		5.46E-06	7.55E-06	1.85E-05	5.60E-06	3.72E-05
Ba-140	Ci		*	*	*	*	*
Ce-141	Ci		*	*	*	*	*
Ce-144	Ci		*	*	*	*	*
Co-57	Ci		*	*	*	1.11E-06	1.11E-06
Ba-133	Ci		*	*	8.43E-06	*	8.43E-06
Sb-125	Ci		*	*	*	*	*
TOTAL	Ci		6.24E-04	1.48E-03	4.95E-04	5.01E-04	3.10E-03

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

D2/3 REACTOR BUILDING VENT | GASEOUS EFFLUENTS | DOCKET NUMBERS: 50-237/50-249

	GROUND LEVEL RELEASES
XX	SEMI-ELEVATED RELEASES
	ELEVATED RELEASES

BATCH MODE

NUCLIDES RELEASED	UNIT		1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
FISSION GASES							
Kr-85	Ci						
Kr-85m	Ci						
Kr-87	Ci						
Kr-88	Ci						
Xe-133	Ci						
Xe-135	Ci						
Xe135m	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						
Cr-51	Ci						
Mn-54	Ci						
Co-58	Ci						
Fe-59	Ci						
Co-60	Ci						
Zr-95	Ci						
Mo-99	Ci						
Ru-103	Ci						
Ag-110m	Ci						
Sb-124	Ci						
I-131	Ci						
Cs-134	Ci						
Cs-136	Ci						
Cs-137	Ci						
Ba-140	Ci						
La-140	Ci						
Ce-141	Ci						
Ce-144	Ci						
Zn-65	Ci						
Ba-133	Ci						
Sb-125	Ci						
Sn-113	Ci						
TOTAL	Ci		None	None	None	None	None

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

D2/3 REACTOR BUILDING VENT | GASEOUS EFFLUENTS | DOCKET NUMBERS: 50-237/50-249

	GROUND LEVEL RELEASES
XX	SEMI-ELEVATED RELEASES
	ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	JANUARY	FEBRUARY	MARCH	1st QTR		APRIL	MAY	JUNE	2nd QTR
FISSION GASES										
Kr-85	Ci	*	*	*	*		*	*	*	*
Kr-85m	Ci	*	*	*	*		*	*	*	*
Kr-87	Ci	*	*	*	*		*	*	*	*
Kr-88	Ci	*	*	*	*		*	*	*	*
Xe-133	Ci	*	*	8.76E-06	8.76E-06		1.15E+00	*	*	1.15E+00
Xe-135	Ci	*	3.13E-05	3.69E-05	6.82E-05		*	*	*	*
Xe135m	Ci	2.30E-06	*	*	7.05E-05		*	*	*	*
Xe-138	Ci	*	*	*	*		*	*	*	*
TOTAL	Ci	2.30E-06	3.13E-05	4.57E-05	7.93E-05		1.15E+00	*	*	1.15E+00
IODINES										
I-131	Ci	*	1.66E-05	5.61E-05	7.27E-05		1.11E-05	*	4.61E-06	1.57E-05
I-133	Ci	9.19E-06	1.23E-04	4.82E-04	6.14E-04		4.57E-07	*	9.06E-05	9.11E-05
I-135	Ci	*	8.17E-05	1.64E-04	2.46E-04		*	*	2.49E-04	2.49E-04
TOTAL	Ci	9.19E-06	2.21E-04	7.02E-04	9.33E-04		1.16E-05	*	3.44E-04	3.56E-04
PARTICULATES										
Fe-55	Ci	4.16E-05	3.47E-05	5.82E-05	1.35E-04		3.05E-04	3.48E-04	2.60E-04	9.13E-04
Sr-89	Ci	1.16E-06	6.10E-06	5.48E-06	1.27E-05		1.14E-06	6.19E-06	*	7.33E-06
Sr-90	Ci	*	*	*	*		*	*	*	*
Na-24	Ci	*	*	*	*		*	*	*	*
Mn-54	Ci	*	7.03E-07	2.83E-04	2.84E-04		2.20E-05	2.22E-05	1.15E-05	5.57E-05
Co-58	Ci	*	*	5.51E-06	5.51E-06		2.05E-05	*	*	2.05E-05
Fe-59	Ci	*	*	*	*		*	*	*	*
Co-60	Ci	1.94E-05	6.57E-05	1.15E-04	2.00E-04		1.94E-04	1.94E-04	9.12E-05	4.79E-04
Zr-95	Ci	*	*	*	*		*	*	*	*
Mo-99	Ci	*	*	*	*		*	*	*	*
Ru-103	Ci	*	*	*	*		*	*	*	*
Ag-110m	Ci	*	*	*	*		*	*	*	*
Sb-124	Ci	*	*	*	*		*	*	*	*
I-131	Ci	*	*	*	*		*	*	*	*
Cs-134	Ci	*	*	*	*		*	*	*	*
Cs-136	Ci	*	*	*	*		*	*	*	*
Cs-137	Ci	*	*	5.46E-06	5.46E-06		6.91E-07	5.16E-06	1.70E-06	7.55E-06
Ba-140	Ci	*	*	*	*		*	*	*	*
Ce-141	Ci	*	*	*	*		*	*	*	*
Ce-144	Ci	*	*	*	*		*	*	*	*
Co-57	Ci	*	*	*	*		*	*	*	*
Ba-133	Ci	*	*	*	*		*	*	*	*
Sb-125	Ci	*	*	*	*		*	*	*	*
TOTAL	Ci	6.22E-05	1.07E-04	4.73E-04	6.42E-04		5.43E-04	5.76E-04	3.64E-04	1.48E-03

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

D2/3 REACTOR BUILDING VENT GASEOUS EFFLUENTS DOCKET NUMBERS: 50-237/50-249

XX

GROUND LEVEL RELEASES
SEMI-ELEVATED RELEASES
ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	JULY	AUGUST	SEPT.	3rd QTR		OCT.	NOV.	DEC.	4th QTR
FISSION GASES										
Kr-85	Ci	*	*	*	*		*	*	*	*
Kr-85m	Ci	*	*	*	*		*	*	*	*
Kr-87	Ci	*	*	*	*		*	*	*	*
Kr-88	Ci	*	*	*	*		*	*	*	*
Xe-133	Ci	*	*	*	*		*	*	*	*
Xe-135	Ci	4.51E-07	*	*	4.51E-07		2.27E-05	1.28E-06	8.81E-05	1.12E-04
Xe135m	Ci	*	*	*	*		*	*	*	*
Xe-138	Ci	*	*	*	*		*	*	*	*
TOTAL	Ci	4.51E-07	*	*	4.51E-07		2.27E-05	1.28E-06	8.81E-05	1.12E-04
IODINES										
I-131	Ci	4.45E-06	3.17E-06	1.79E-05	2.55E-05		5.29E-06	4.34E-04	6.37E-06	4.46E-04
I-133	Ci	2.69E-05	2.33E-05	4.24E-05	9.26E-05		4.77E-05	3.33E-05	5.57E-05	1.37E-04
I-135	Ci	1.72E-05	2.62E-04	*	2.79E-04		2.56E-05	*	1.11E-04	1.37E-04
TOTAL	Ci	4.86E-05	2.88E-04	6.03E-05	3.97E-04		7.86E-05	4.67E-04	1.73E-04	7.19E-04
PARTICULATES										
Fe-55	Ci	6.66E-05	5.03E-05	4.50E-05	1.62E-04		8.94E-05	8.99E-05	8.91E-05	2.68E-04
Sr-89	Ci	*	*	1.02E-08	1.02E-08		7.55E-07	7.53E-07	7.46E-07	2.25E-06
Sr-90	Ci	*	*	*	*		*	*	*	*
Na-24	Ci	8.77E-06	*	*	8.77E-06		*	*	*	*
Mn-54	Ci	8.71E-06	1.32E-06	8.70E-06	1.87E-05		6.08E-06	1.25E-05	2.03E-05	3.89E-05
Co-58	Ci	1.20E-06	*	*	1.20E-06		4.46E-07	4.50E-07	4.66E-07	1.36E-06
Fe-59	Ci	*	*	1.22E-04	1.22E-04		*	1.51E-06	3.95E-07	1.91E-06
Co-60	Ci	5.65E-05	3.14E-05	6.73E-05	1.55E-04		4.28E-05	8.93E-05	4.96E-05	1.82E-04
Zr-95	Ci	*	*	*	*		*	*	*	*
Mo-99	Ci	*	*	*	*		*	*	*	*
Ru-103	Ci	*	*	*	*		*	*	*	*
Ag-110m	Ci	*	*	*	*		*	*	*	*
Sb-124	Ci	*	*	*	*		*	*	*	*
I-131	Ci	*	*	*	*		*	*	*	*
Cs-134	Ci	*	*	*	*		*	*	*	*
Cs-136	Ci	*	*	*	*		*	*	*	*
Cs-137	Ci	1.54E-05	*	3.14E-06	1.85E-05		6.12E-07	2.56E-06	2.43E-06	5.60E-06
Ba-140	Ci	*	*	*	*		*	*	*	*
Ce-141	Ci	*	*	*	*		*	*	*	*
Ce-144	Ci	*	*	*	*		*	*	*	*
Co-57	Ci	*	*	*	*		*	*	1.11E-06	1.11E-06
Ba-133	Ci	*	3.68E-06	4.75E-06	8.43E-06		*	*	*	*
Sb-125	Ci	*	*	*	*		*	*	*	*
TOTAL	Ci	1.57E-04	8.67E-05	2.51E-04	4.95E-04		1.40E-04	1.97E-04	1.64E-04	5.01E-04

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DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

D2/3 MAIN CHIMNEY — GASEOUS EFFLUENTS — DOCKET NUMBERS: 50-237/50-249

	GROUND LEVEL RELEASES
	SEMI-ELEVATED RELEASES
XX	ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT		1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
FISSION GASES							
Ar-41	Ci		1.52E-01	1.74E-02	1.07E-01	1.72E+00	2.00E+00
Kr-85	Ci		1.20E-03	*	*	*	1.20E-03
Kr-85m	Ci		6.83E-01	2.55E-02	1.58E+00	1.33E+00	3.62E+00
Kr-87	Ci		4.38E+00	1.51E-01	2.08E+00	4.16E+00	1.08E+01
Kr-88	Ci		2.53E+00	8.46E-02	1.16E+00	1.76E+01	2.14E+01
Xe-133	Ci		2.30E-01	1.58E-02	5.89E-01	4.74E+00	5.57E+00
Xe-135	Ci		7.43E+00	3.13E+00	2.60E+01	1.89E+01	5.55E+01
Xe135m	Ci		1.10E+01	4.57E-01	4.48E+00	7.66E+00	2.36E+01
Xe-138	Ci		5.46E+01	1.58E+00	2.41E+01	3.86E+01	1.19E+02
TOTAL	Ci		8.10E+01	5.46E+00	6.01E+01	9.48E+01	2.41E+02
IODINES							
I-131	Ci		2.99E-03	4.23E-04	1.10E-03	7.84E-04	5.29E-03
I-133	Ci		2.29E-03	6.41E-04	7.34E-03	6.52E-03	1.68E-02
I-135	Ci		1.01E-03	6.73E-04	7.07E-03	1.00E-02	1.88E-02
TOTAL	Ci		6.29E-03	1.74E-03	1.55E-02	1.73E-02	4.09E-02
PARTICULATES							
Fe-55	Ci		4.11E-05	9.37E-05	8.66E-04	2.77E-05	1.03E-03
Sr-89	Ci		7.09E-04	1.28E-04	5.45E-04	3.11E-04	1.69E-03
Sr-90	Ci		5.41E-06	2.70E-08	*	4.09E-05	4.63E-05
Cr-51	Ci		*	*	*	*	*
Mn-54	Ci		*	*	*	1.72E-05	1.72E-05
Co-58	Ci		*	*	*	*	*
Fe-59	Ci		*	*	*	*	*
Co-60	Ci		2.06E-04	1.52E-04	1.79E-04	2.92E-05	5.65E-04
Sr-95	Ci		1.88E-05	*	*	*	*
Mo-99	Ci		*	*	*	*	*
Ru-103	Ci		*	*	*	*	*
Ag-110m	Ci		*	*	*	*	*
Sb-124	Ci		*	*	*	*	*
I-131	Ci		*	*	*	*	*
Cs-134	Ci		*	*	*	*	*
Cs-136	Ci		*	*	*	*	*
Cs-137	Ci		*	3.48E-06	*	*	3.48E-06
Ba-140	Ci		*	*	*	2.89E-05	*
Sr-85	Ci		*	*	4.06E-05	*	*
Ce-141	Ci		*	*	*	*	*
Ce-144	Ci		*	*	*	*	*
Zn-65	Ci		*	*	*	*	*
Ba-133	Ci		*	8.65E-06	*	*	*
Sb-125	Ci		*	*	*	*	*
TOTAL	Ci		9.80E-04	3.85E-04	1.68E-03	4.55E-04	3.50E-03

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DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

D2/3 MAIN CHIMNEY — GASEOUS EFFLUENTS — DOCKET NUMBERS: 50-237/50-249

_____ GROUND LEVEL RELEASES
_____ SEMI-ELEVATED RELEASES
XX ELEVATED RELEASES

BATCH MODE

NUCLIDES RELEASED	UNIT		1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
FISSION GASES							
Kr-85	Ci						
Kr-85m	Ci						
Kr-87	Ci						
Kr-88	Ci						
Xe-133	Ci						
Xe-135	Ci						
Xe135m	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						
Cr-51	Ci						
Mn-54	Ci						
Co-58	Ci						
Fe-59	Ci						
Co-60	Ci						
Zr-95	Ci						
Mo-99	Ci						
Ru-103	Ci						
Ag-110m	Ci						
Sb-124	Ci						
I-131	Ci						
Cs-134	Ci						
Cs-136	Ci						
Cs-137	Ci						
Ba-140	Ci						
La-140	Ci						
Ce-141	Ci						
Ce-144	Ci						
Zn-65	Ci						
Ba-133	Ci						
Sb-125	Ci						
Sn-113	Ci						
TOTAL	Ci		None	None	None	None	None

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

D2/3 MAIN CHIMNEY

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

_____ GROUND LEVEL RELEASES
_____ SEMI-ELEVATED RELEASES
XX ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	JANUARY	FEBRUARY	MARCH	1st QTR	APRIL	MAY	JUNE	2nd QTR
FISSION GASES									
Ar-41	Ci	1.35E-04	1.47E-01	4.66E-03	1.52E-01	6.46E-03	2.50E-03	8.45E-03	1.74E-02
Kr-85	Ci	*	*	1.20E-03	1.20E-03	*	*	*	*
Kr-85m	Ci	9.11E-03	2.94E-01	3.80E-01	6.83E-01	4.26E-03	3.65E-03	1.76E-02	2.55E-02
Kr-87	Ci	6.03E-02	1.87E+00	2.45E+00	4.38E+00	1.83E-02	2.70E-02	1.06E-01	1.51E-01
Kr-88	Ci	3.22E-02	1.13E+00	1.37E+00	2.53E+00	1.09E-02	1.28E-02	6.09E-02	8.46E-02
Xe-133	Ci	9.89E-03	1.00E-01	1.20E-01	2.30E-01	1.14E-02	7.46E-04	3.70E-03	1.58E-02
Xe-135	Ci	3.42E-02	5.49E+00	1.91E+00	7.43E+00	1.31E-02	1.36E-02	3.10E+00	3.13E+00
Xe135m	Ci	1.86E-01	4.95E+00	5.88E+00	1.10E+01	5.91E-02	7.93E-02	3.19E-01	4.57E-01
Xe-138	Ci	7.90E-01	2.45E+01	2.93E+01	5.46E+01	2.49E-01	3.63E-01	9.69E-01	1.58E+00
TOTAL	Ci	1.12E+00	3.85E+01	4.14E+01	8.10E+01	3.73E-01	5.03E-01	4.58E+00	5.46E+00
IODINES									
I-131	Ci	2.58E-03	1.90E-04	2.20E-04	2.99E-03	2.76E-04	1.14E-05	1.36E-04	4.23E-04
I-133	Ci	2.21E-05	1.29E-03	9.78E-04	2.29E-03	8.34E-05	5.85E-05	4.99E-04	6.41E-04
I-135	Ci	*	4.48E-04	5.66E-04	1.01E-03	*	*	6.73E-04	6.73E-04
TOTAL	Ci	2.60E-03	1.93E-03	1.76E-03	6.29E-03	3.59E-04	6.99E-05	1.31E-03	1.74E-03
PARTICULATES									
Fe-55	Ci	1.08E-05	8.59E-06	2.17E-05	4.11E-05	2.55E-05	2.79E-05	4.03E-05	9.37E-05
Sr-89	Ci	1.19E-04	2.33E-04	3.57E-04	7.09E-04	4.03E-06	3.38E-05	8.98E-05	1.28E-04
Sr-90	Ci	*	*	5.41E-06	5.41E-06	2.70E-08	*	*	2.70E-08
Cr-51	Ci	*	*	*	*	*	*	*	*
Mn-54	Ci	*	*	*	*	*	*	*	*
Co-58	Ci	*	*	*	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-60	Ci	1.21E-05	4.86E-05	1.45E-04	2.06E-04	2.76E-05	8.17E-05	4.27E-05	1.52E-04
Sr-85	Ci	*	*	1.88E-05	1.88E-05	*	*	*	*
Zr-95	Ci	*	*	*	*	*	*	*	*
Mo-99	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
I-131	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Cs-136	Ci	*	*	*	*	*	*	*	*
Cs-137	Ci	*	*	*	*	*	3.48E-06	*	3.48E-06
Ba-140	Ci	*	*	*	*	*	*	*	*
Sr-85	Ci	*	*	*	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*	*	*	*
Ce-144	Ci	*	*	*	*	*	*	*	*
Zn-65	Ci	*	*	*	*	*	*	*	*
Ba-133	Ci	*	*	*	*	*	8.65E-06	*	8.65E-06
Sb-125	Ci	*	*	*	*	*	*	*	*
Hg-203	Ci	*	*	6.76E-06	6.76E-06	*	*	*	*
TOTAL	Ci	1.42E-04	2.90E-04	5.48E-04	9.80E-04	5.72E-05	1.56E-04	1.73E-04	3.85E-04

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DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

D2/3 MAIN CHIMNEY — GASEOUS EFFLUENTS — DOCKET NUMBERS: 50-237/50-249

_____ GROUND LEVEL RELEASES
_____ SEMI-ELEVATED RELEASES
XX ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	JULY	AUGUST	SEPT.	3rd QTR	OCT.	NOV.	DEC.	4th QTR
FISSION GASES									
Ar-41	Ci	4.72E-02	2.91E-02	3.07E-02	1.07E-01	2.44E-03	7.21E-01	1.00E+00	1.72E+00
Kr-85	Ci	*	*	*	*	*	*	*	*
Kr-85m	Ci	1.25E-01	1.34E+00	1.17E-01	1.58E+00	1.47E-01	6.86E-01	4.96E-01	1.33E+00
Kr-87	Ci	6.70E-01	7.08E-01	7.03E-01	2.08E+00	1.07E+00	8.06E-01	2.28E+00	4.16E+00
Kr-88	Ci	3.62E-01	4.11E-01	3.90E-01	1.16E+00	5.79E-01	1.66E+01	4.66E-01	1.76E+01
Xe-133	Ci	6.35E-02	4.26E-01	9.90E-02	5.89E-01	4.73E-02	3.61E+00	1.08E+00	4.74E+00
Xe-135	Ci	7.14E+00	1.02E+01	8.66E+00	2.60E+01	5.35E+00	5.29E+00	8.29E+00	1.89E+01
Xe135m	Ci	2.01E+00	4.03E-01	2.07E+00	4.48E+00	3.34E+00	2.66E+00	1.66E+00	7.66E+00
Xe-138	Ci	9.60E+00	4.77E+00	9.76E+00	2.41E+01	1.63E+01	1.20E+01	1.03E+01	3.86E+01
TOTAL	Ci	2.00E+01	1.83E+01	2.18E+01	6.01E+01	2.68E+01	4.24E+01	2.56E+01	9.48E+01
IODINES									
I-131	Ci	4.26E-04	3.22E-04	3.49E-04	1.10E-03	3.56E-04	2.04E-04	2.24E-04	7.84E-04
I-133	Ci	2.85E-03	1.82E-03	2.67E-03	7.34E-03	3.08E-03	1.49E-03	1.95E-03	6.52E-03
I-135	Ci	3.05E-03	1.23E-03	2.79E-03	7.07E-03	5.96E-03	2.14E-03	1.92E-03	1.00E-02
TOTAL	Ci	6.33E-03	3.37E-03	5.81E-03	1.55E-02	9.40E-03	3.83E-03	4.09E-03	1.73E-02
PARTICULATES									
Fe-55	Ci	1.00E-04	1.90E-04	5.76E-04	8.66E-04	5.66E-06	9.80E-06	1.22E-05	2.77E-05
Sr-89	Ci	1.64E-04	2.32E-04	1.49E-04	5.45E-04	1.30E-04	4.93E-05	1.32E-04	3.11E-04
Sr-90	Ci	*	*	*	*	*	2.66E-05	1.43E-05	4.09E-05
Cr-51	Ci	*	*	*	*	*	*	*	*
Mn-54	Ci	4.85E-05	*	*	4.85E-05	*	1.72E-05	*	1.72E-05
Co-58	Ci	*	*	*	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-60	Ci	8.06E-05	7.16E-05	2.63E-05	1.79E-04	1.12E-05	1.74E-05	6.10E-07	2.92E-05
Zr-95	Ci	*	*	*	*	*		*	*
Mo-99	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
I-131	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Cs-136	Ci	*	*	*	*	*	*	*	*
Cs-137	Ci	*	*	*	*	*	*	*	*
Ba-140	Ci	*	*	*	*	2.89E-05	*	*	2.89E-05
Sr-85	Ci	*	3.00E-05	1.06E-05	4.06E-05	*	*	*	*
Ce-141	Ci	*	*	*	*	*	*	*	*
Ce-144	Ci	*	*	*	*	*	*	*	*
Zn-65	Ci	*	*	*	*	*	*	*	*
Ba-133	Ci	*	*	*	*	*	*	*	*
Sb-125	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	3.93E-04	5.24E-04	7.62E-04	1.68E-03	1.76E-04	1.20E-04	1.59E-04	4.55E-04

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

CHEMICAL CLEANING BUILDING GASEOUS EFFLUENTS DOCKET NUMBERS: 50-010/50-237/50-249

	GROUND LEVEL RELEASES
XX	SEMI-ELEVATED RELEASES
	ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT		1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
IODINES							
I-131	Ci		*	*	*	*	*
I-133	Ci		*	*	*	*	*
I-135	Ci		*	*	*	*	*
TOTAL	Ci		*	*	*	*	*
PARTICULATES							
Fe-55	Ci		1.47E-06	5.63E-08	*	*	1.52E-06
Sr-89	Ci		*	*	*	*	*
Sr-90	Ci		*	*	*	*	*
Cr-51	Ci		*	*	*	*	*
Mn-54	Ci		*	4.36E-07	*	2.07E-07	6.43E-07
Co-58	Ci		*	*	*	*	*
Fe-59	Ci		*	*	*	*	*
Co-60	Ci		2.45E-06	1.57E-06	1.13E-06	2.36E-06	7.51E-06
Zr-95	Ci		*	*	*	*	*
Mo-99	Ci		*	*	*	*	*
Ru-103	Ci		*	*	*	*	*
Ag-110m	Ci		*	*	*	*	*
Sb-124	Ci		*	*	*	*	*
I-131	Ci		*	*	*	*	*
Cs-134	Ci		*	*	*	*	*
Cs-136	Ci		*	*	*	*	*
Cs-137	Ci		2.56E-07	*	*	7.44E-07	1.00E-06
Ba-140	Ci		*	*	*	*	*
Ce-141	Ci		*	*	*	*	*
Ce-144	Ci		*	1.18E-06	1.13E-06	*	2.31E-06
Zn-65	Ci		*	*	*	*	*
Ba-133	Ci		*	*	*	*	*
Sb-125	Ci		*	*	*	*	*
TOTAL	Ci		4.17E-06	3.24E-06	2.26E-06	3.31E-06	1.30E-05

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DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

CHEMICAL CLEANING BUILDING GASEOUS EFFLUENTS DOCKET NUMBERS: 50-010/50-237/50-249

	GROUND LEVEL RELEASES
XX	SEMI-ELEVATED RELEASES
	ELEVATED RELEASES

BATCH MODE

NUCLIDES RELEASED	UNIT		1st QTR	2nd QTR	3rd QTR	4th QTR	TOTAL
FISSION GASES							
Kr-85	Ci						
Kr-85m	Ci						
Kr-87	Ci						
Kr-88	Ci						
Xe-133	Ci						
Xe-135	Ci						
Xe135m	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						
Cr-51	Ci						
Mn-54	Ci						
Co-58	Ci						
Fe-59	Ci						
Co-60	Ci						
Zr-95	Ci						
Mo-99	Ci						
Ru-103	Ci						
Ag-110m	Ci						
Sb-124	Ci						
I-131	Ci						
Cs-134	Ci						
Cs-136	Ci						
Cs-137	Ci						
Ba-140	Ci						
La-140	Ci						
Ce-141	Ci						
Ce-144	Ci						
Zn-65	Ci						
Ba-133	Ci						
Sb-125	Ci						
Sn-113	Ci						
TOTAL	Ci		None	None	None	None	None

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DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

CHEMICAL CLEANING BUILDING | GASEOUS EFFLUENTS | DOCKET NUMBERS: 50-010/50-237/50-249

	GROUND LEVEL RELEASES
XX	SEMI-ELEVATED RELEASES
	ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	JANUARY	FEBRUARY	MARCH	1st QTR		APRIL	MAY	JUNE	2nd QTR
IODINES										
I-131	Ci	*	*	*	*		*	*	*	*
I-133	Ci	*	*	*	*		*	*	*	*
I-135	Ci	*	*	*	*		*	*	*	*
TOTAL	Ci	*	*	*	*		*	*	*	*
PARTICULATES										
Fe-55	Ci	4.77E-07	4.70E-07	5.20E-07	1.47E-06		5.63E-08	*	*	5.63E-08
Sr-89	Ci	*	*	*	*		*	*	*	*
Sr-90	Ci	*	*	*	*		*	*	*	*
Cr-51	Ci	*	*	*	*		*	*	*	*
Mn-54	Ci	*	*	*	*		4.36E-07	*	*	4.36E-07
Co-58	Ci	*	*	*	*		*	*	*	*
Fe-59	Ci	*	*	*	*		*	*	*	*
Co-60	Ci	1.15E-07	1.18E-06	1.15E-06	2.45E-06		1.57E-06	*	*	1.57E-06
Zr-95	Ci	*	*	*	*		*	*	*	*
Mo-99	Ci	*	*	*	*		*	*	*	*
Ru-103	Ci	*	*	*	*		*	*	*	*
Ag-110m	Ci	*	*	*	*		*	*	*	*
Sb-124	Ci	*	*	*	*		*	*	*	*
I-131	Ci	*	*	*	*		*	*	*	*
Cs-134	Ci	*	*	*	*		*	*	*	*
Cs-136	Ci	*	*	*	*		*	*	*	*
Cs-137	Ci	*	2.56E-07	*	2.56E-07		*	*	*	*
Ba-140	Ci	*	*	*	*		*	*	*	*
Ce-141	Ci	*	*	*	*		*	*	*	*
Ce-144	Ci	*	*	*	*		*	*	1.18E-06	1.18E-06
Zn-65	Ci	*	*	*	*		*	*	*	*
Ba-133	Ci	*	*	*	*		*	*	*	*
Sb-125	Ci	*	*	*	*		*	*	*	*
TOTAL	Ci	5.92E-07	1.91E-06	1.67E-06	4.17E-06		2.06E-06	*	1.18E-06	3.24E-06

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DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

CHEMICAL CLEANING BUILDING GASEOUS EFFLUENTS DOCKET NUMBERS: 50-010/50-237/50-249

	GROUND LEVEL RELEASES
XX	SEMI-ELEVATED RELEASES
	ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	JULY	AUGUST	SEPT.	3rd QTR	OCT.	NOV.	DEC.	4th QTR
IODINES									
I-131	Ci	*	*	*	*	*	*	*	*
I-133	Ci	*	*	*	*	*	*	*	*
I-135	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	*	*	*	*	*	*	*	*
PARTICULATES									
Fe-55	Ci	*	*	*	*	*	*	*	*
Sr-89	Ci	*	*	*	*	*	*	*	*
Sr-90	Ci	*	*	*	*	*	*	*	*
Cr-51	Ci	*	*	*	*	*	*	*	*
Mn-54	Ci	*	*	*	*	2.07E-07	*	*	2.07E-07
Co-58	Ci	*	*	*	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-60	Ci	4.03E-07	1.96E-07	5.31E-07	1.13E-06	9.58E-07	7.52E-07	6.52E-07	2.36E-06
Zr-95	Ci	*	*	*	*	*	*	*	*
Mo-99	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
I-131	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Cs-136	Ci	*	*	*	*	*	*	*	*
Cs-137	Ci	*	*	*	*	*	7.44E-07	*	7.44E-07
Ba-140	Ci	*	*	*	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*	*	*	*
Ce-144	Ci	1.13E-06	*	*	1.13E-06	*	*	*	*
Zn-65	Ci	*	*	*	*	*	*	*	*
Ba-133	Ci	*	*	*	*	*	*	*	*
Sb-125	Ci	*	*	*	*	*	*	*	*
TOTAL	Ci	1.53E-06	1.96E-07	5.31E-07	2.26E-06	1.17E-06	1.50E-06	6.52E-07	3.31E-06

*The activity of this nuclide is less than the LLD listed on the appropriate table

UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through December 1997

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 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

RADWASTE LIQUID EFFLUENTS

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

		UNITS	1st Quarter	2nd Quarter	EST. TOTAL ERROR, %
A.	FISSION AND ACTIVATION PRODUCTS				
1.	Total Release (not including H-3, gases, alpha)	Ci	5.40E-03	4.71E-03	1.06E+01
2.	Average Diluted Conc. During Period	µCi/ml	2.33E-08	1.38E-08	
3.	Percent of Technical Specification Limit	%	*	*	
B.	TRITIUM				
1.	Total Release	Ci	2.49E+00	4.09E+00	1.14E+01
2.	Average Diluted Conc. During Release	µCi/ml	1.07E-05	1.20E-05	
3.	Percent of Technical Specification Limit	%	*	*	
C.	DISSOLVED AND ENTRAINED GASES				
1.	Total Release	Ci	9.12E-05	1.18E-04	5.58E+00
2.	Average Diluted Conc. During Period	µCi/ml	3.93E-10	3.45E-10	
3.	Percent of Technical Specification Limit	%	*	*	
D.	GROSS ALPHA ACTIVITY				
1.	Total Release	Ci	<LLD	<LLD	1.51E+01
E.	VOLUME OF WASTE RELEASED (prior to dilution)	Liters	1.84E+06	2.98E+06	5.00E+00
D.	VOLUME OF DILUTION WATER USED DURING PERIOD	Liters	2.30E+08	3.38E+08	5.00E+00

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

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

RADWASTE LIQUID EFFLUENTS — DOCKET NUMBERS: 50-010/50-237/50-249

		UNITS	3rd Quarter	4th Quarter	EST. TOTAL ERROR, %
A.	FISSION AND ACTIVATION PRODUCTS				
1.	Total Release (not including H-3, gases, alpha)	Ci	2.35E-03	1.59E-03	1.06E+01
2.	Average Diluted Conc. During Period	µCi/ml	2.36E-08	5.68E-09	
3.	Percent of Technical Specification Limit	%	*	*	
B.	TRITIUM				
1.	Total Release	Ci	1.32E+00	4.58E+00	1.14E+01
2.	Average Diluted Conc. During Release	µCi/ml	1.33E-05	1.64E-05	
3.	Percent of Technical Specification Limit	%	*	*	
C.	DISSOLVED AND ENTRAINED GASES				
1.	Total Release	Ci	<LLD	<LLD	5.58E+00
2.	Average Diluted Conc. During Period	µCi/ml	<LLD	<LLD	
3.	Percent of Technical Specification Limit	%	*	*	
D.	GROSS ALPHA ACTIVITY				
1.	Total Release	Ci	<LLD	<LLD	1.51E+01
E.	VOLUME OF WASTE RELEASED (prior to dilution)	Liters	7.99E+05	9.86E+05	5.00E+00
D.	VOLUME OF DILUTION WATER USED DURING PERIOD	Liters	9.87E+07	2.79E+08	5.00E+00

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

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

RADWASTE LIQUID EFFLUENTS

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

1. Number of Batch Releases: 1.90E+01
2. Total Time for Batch Releases: 6.00E+03 minutes
3. Maximum Time Period for a Batch Release: 4.21E+02 minutes
4. Average Time Period for a Batch Release: 3.16E+02 minutes
5. Minimum Time Period for a Batch Release: 1.00E+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	**1st QTR**	**2nd QTR**	**1st QTR**	**2nd QTR**
Fe-55	Ci	**1.47E-03**	**6.02E-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	**1.01E-03**	**7.33E-04**		
Fe-59	Ci	*	*		
Co-58	Ci	*	**3.80E-05**		
Co-60	Ci	**2.56E-03**	**1.84E-03**		
Cs-137	Ci	**3.51E-04**	**4.39E-04**		
Zn-65	Ci	*	*		
Ru-103	Ci	*	*		
Ag-110m	Ci	*	*		
Sb-124	Ci	*	*		
Cs-134	Ci	*	*		
Ba-140	Ci	*	*		
La-140	Ci	*	*		
Ce-141	Ci	*	**3.02E-05**		
Cs-138	Ci	*	*		
Zr-95	Ci	*	*		
(above) Total		**5.40E-03**	**4.68E-03**	None	None
H-3	Ci	**2.49E+00**	**4.09E+00**		
Xe-133	Ci	**2.91E-05**	**7.26E-05**		
Xe-135	Ci	**6.21E-05**	*		
Xe-133m	Ci	*	**4.52E-05**		

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

RADWASTE LIQUID EFFLUENTS

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

BATCH MODE

	Unit	January	February	March	1st QTR	April	May	June	2nd QTR
Fe-55	Ci	7.65E-04	7.09E-04	*	**1.47E-03**	1.34E-04	2.29E-04	3.73E-04	**6.02E-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	2.70E-04	7.42E-04	*	**1.01E-03**	1.37E-04	3.73E-04	3.60E-04	**7.33E-04**
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-58	Ci	*	*	*	*	*	2.90E-05	9.03E-06	**3.80E-05**
Co-60	Ci	9.21E-04	1.64E-03	*	**2.56E-03**	4.99E-04	9.53E-04	8.90E-04	**1.84E-03**
Cs-137	Ci	1.24E-04	2.27E-04	*	**3.51E-04**	2.20E-04	2.28E-04	2.11E-04	**4.39E-04**
Zn-65	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Ba-140	Ci	*	*	*	*	*	*	*	*
La-140	Ci	*	*	*	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*	3.02E-05	*	**3.02E-05**
Cs-138	Ci	*	*	*	*	*	*	*	*
Zr-95	Ci	*	*	*	*	*	*	*	*
(above) Total		2.08E-03	3.32E-03	*	5.40E-03	9.90E-04	1.84E-03	1.84E-03	4.68E-03
H-3	Ci	9.32E-01	1.56E+00	*	**2.49E+00**	1.18E+00	2.47E+00	1.62E+00	**4.09E+00**
Xe-133	Ci	*	2.91E-05	*	**2.91E-05**	*	7.26E-05	*	**7.26E-05**
Xe-135	Ci	*	6.21E-05	*	**6.21E-05**	*	*	*	*
Xe-133m	Ci	*	*	*	*	4.52E-05	*	*	**4.52E-05**

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

RADWASTE LIQUID EFFLUENTS

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

1. Number of Batch Releases: 7.00E+00
2. Total Time for Batch Releases: 2.39E+03 minutes
3. Maximum Time Period for a Batch Release: 3.80E+02 minutes
4. Average Time Period for a Batch Release: 3.42E+02 minutes
5. Minimum Time Period for a Batch Release: 2.79E+02 minutes
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: 1.60E+05 l/min

		BATCH MODE		CONTINUOUS MODE	
	Unit	**3rd QTR**	**4th QTR**	**3rd QTR**	**4th QTR**
Fe-55	Ci	**8.17E-04**	**2.08E-04**		
Sr-89	Ci	**4.86E-05**	**2.95E-05**		
Sr-90	Ci	*	*		
I-131	Ci	*	*		
I-132	Ci	*	*		
I-133	Ci	*	*		
I-134	Ci	*	*		
I-135	Ci	*	*		
Cr-51	Ci	*	**6.11E-05**		
Mn-54	Ci	**3.12E-04**	**2.25E-04**		
Fe-59	Ci	*	*		
Co-58	Ci	*	*		
Co-60	Ci	**1.07E-03**	**9.07E-04**		
Cs-137	Ci	**1.02E-04**	**1.55E-04**		
Zn-65	Ci	*	*		
Ru-103	Ci	*	*		
Ag-110m	Ci	*	*		
Sb-124	Ci	*	*		
Cs-134	Ci	*	*		
Ba-140	Ci	*	*		
La-140	Ci	*	*		
Ce-141	Ci	*	*		
Cs-138	Ci	*	*		
Zr-95	Ci	*	*		
(above) Total		**2.35E-03**	**1.59E-03**	None	None
H-3	Ci	**1.32E+00**	**4.58E+00**		
Xe-133	Ci	*	*		
Xe-135	Ci	*	*		
X3e-133m					

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

RADWASTE LIQUID EFFLUENTS

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

BATCH MODE

	Unit	July	August	September	**3rd QTR**	October	November	December	**4th QTR**
Fe-55	Ci	8.17E-04	*	*	**8.17E-04**	*	*	2.08E-04	**2.08E-04**
Sr-89	Ci	4.86E-05	*	*	**4.86E-05**	*	*	2.95E-05	**2.95E-05**
Sr-90	Ci	*	*	*	*	*	*	*	*
I-131	Ci	*	*	*	*	*	*	*	*
I-132	Ci	*	*	*	*	*	*	*	*
I-133	Ci	*	*	*	*	*	*	*	*
I-134	Ci	*	*	*	*	*	*	*	*
I-135	Ci	*	*	*	*	*	*	*	*
Cr-51	Ci	*	*	*	*	*	*	6.11E-05	**6.11E-05**
Mn-54	Ci	3.12E-04	*	*	**3.12E-04**	*	*	2.25E-04	**2.25E-04**
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-58	Ci	*	*	*	*	*	*	*	*
Co-60	Ci	1.07E-03	*	*	**1.07E-03**	*	*	9.07E-04	**9.07E-04**
Cs-137	Ci	1.02E-04	*	*	**1.02E-04**	*	*	1.55E-04	**1.55E-04**
Zn-65	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Ba-140	Ci	*	*	*	*	*	*	*	*
La-140	Ci	*	*	*	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*	*	*	*
Cs-138	Ci	*	*	*	*	*	*	*	*
Zr-95	Ci	*	*	*	*	*	*	*	*
(above) Total		2.35E-03	*	*	2.35E-03	*	*	1.59E-03	1.59E-03
H-3	Ci	1.32E+00	*	*	**1.32E+00**	*	*	4.58E+00	**4.58E+00**
Xe-133	Ci	*	*	*	*	*	*	*	*
Xe-135	Ci	*	*	*	*	*	*	*	*

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

CCSW LIQUID EFFLUENTS — DOCKET NUMBERS: 50-237/50-249

1. Number of Batch Releases: 1.00E+01
2. Total Time for Batch Releases: 1.24E+01 minutes
3. Maximum Time Period for a Batch Release: 1.24E00 minutes
4. Average Time Period for a Batch Release: 1.24E00 minutes
5. Minimum Time Period for a Batch Release: 1.24E00 minutes
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: 9.46E+04 lpm

		BATCH MODE		CONTINUOUS MODE	
	Unit	1st QTR	2nd QTR	1st QTR	2nd 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	*	*		
Fe-59	Ci	*	*		
Co-58	Ci	*	*		
Co-60	Ci	*	**3.06E-05**		
Cs-137	Ci	*	*		
Zn-65	Ci	*	*		
Ru-103	Ci	*	*		
Ag-110m	Ci	*	*		
Sb-124	Ci	*	*		
Cs-134	Ci	*	*		
Ba-140	Ci	*	*		
La-140	Ci	*	*		
Ce-141	Ci	*	*		
Cs-138	Ci	*	*		
Zr-95	Ci	*	*		
(above) Total		*	**3.06E-5**	None	None
H-3	Ci	*	*		
Xe-133	Ci	*	*		
Xe-135	Ci	*	*		

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through June 1997

CCSW LIQUID EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

BATCH MODE

	Unit	January	February	March	1st QTR	April	May	June	2nd 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	*	*	*	*	*	*	*	*
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-58	Ci	*	*	*	*	*	*	*	*
Co-60	Ci	*	*	*	*	*	4.58E-06	2.60E-05	**3.06E-05**
Cs-137	Ci	*	*	*	*	*	*	*	*
Zn-65	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Ba-140	Ci	*	*	*	*	*	*	*	*
La-140	Ci	*	*	*	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*	*	*	*
Cs-138	Ci	*	*	*	*	*	*	*	*
Zr-95	Ci	*	*	*	*	*	*	*	*
(above) Total							4.58E-06	2.60E-05	3.06E-05
H-3	Ci	*	*	*	*	*	*	*	*
Xe-133	Ci	*	*	*	*	*	*	*	*
Xe-135	Ci	*	*	*	*	*	*	*	*

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

CCSW LIQUID EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

1. Number of Batch Releases: 4.00E+00
2. Total Time for Batch Releases: 4.96E+00 min
3. Maximum Time Period for a Batch Release: 1.24E+00 min
4. Average Time Period for a Batch Release: 1.24E+00 min
5. Minimum Time Period for a Batch Release: 1.24E+00 min
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: 9.46E+04 l/min

		BATCH MODE		CONTINUOUS MODE	
	Unit	3rd QTR	4th QTR	3rd QTR	4th 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	**2.02E-06**	*		
Fe-59	Ci	*	*		
Co-58	Ci	*	*		
Co-60	Ci	**3.40E-06**	*		
Cs-137	Ci	**3.16E-06**	*		
Zn-65	Ci	*	*		
Ru-103	Ci	*	*		
Ag-110m	Ci	*	*		
Sb-124	Ci	*	*		
Cs-134	Ci	*	*		
Ba-140	Ci	*	*		
La-140	Ci	*	*		
Ce-141	Ci	*	*		
Cs-138	Ci	*	*		
Zr-95	Ci	*	*		
(above) Total		**8.58E-06**	*	None	None
H-3	Ci	*	*		
Xe-133	Ci	*	*		
Xe-135	Ci	*	*		

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
July Through December 1997

CCSW LIQUID EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

BATCH MODE

	Unit	July	August	September	**3rd QTR**	October	November	December	**4th 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	*	*	2.02E-06	**2.02E-06**	*	*	*	*
Fe-59	Ci	*	*	*	*	*	*	*	*
Co-58	Ci	*	*	*	*	*	*	*	*
Co-60	Ci	*	*	3.40E-06	**3.40E-06**	*	*	*	*
Cs-137	Ci	*	*	3.16E-06	**3.16E-06**	*	*	*	*
Zn-65	Ci	*	*	*	*	*	*	*	*
Ru-103	Ci	*	*	*	*	*	*	*	*
Ag-110m	Ci	*	*	*	*	*	*	*	*
Sb-124	Ci	*	*	*	*	*	*	*	*
Cs-134	Ci	*	*	*	*	*	*	*	*
Ba-140	Ci	*	*	*	*	*	*	*	*
La-140	Ci	*	*	*	*	*	*	*	*
Ce-141	Ci	*	*	*	*	*	*	*	*
Cs-138	Ci	*	*	*	*	*	*	*	*
Zr-95	Ci	*	*	*	*	*	*	*	*
(above) Total				8.58E-06	8.58E-06				
H-3	Ci	*	*	*	*	*	*	*	*
Xe-133	Ci	*	*	*	*	*	*	*	*
Xe-135	Ci	*	*	*	*	*	*	*	*

*The activity of this nuclide is less than the LLD listed on the appropriate table.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January through June 1997

Docket Numbers: 50-237/50-249

UNIT 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	6-month period	Est. Total Error, %
a.	Spent resins, filter sludges, evaporator bottoms, etc.	m^3	8.70E+01	12.4
		Ci	5.84E+02	
b.	Dry compressible waste, contaminated equipment, etc.	m^3	1.68E+03	16.6
		Ci	9.61E+00	
c.	Irradiated components, control rods, etc.	m^3	None	
		Ci	None	
d.	Other (describe)	m^3	None	
		Ci	None	

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

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

	Percent %	Curies
Co-60	3.07E+01	1.79E+02
Fe-55	5.23E+01	3.05E+02
Mn-54	7.50E+00	4.39E+01
Cs-137	6.70E+00	3.90E+01

b. Dry compressible waste, contaminated equipment, etc.

Co-60	2.43E+01	2.32E+00
Fe-55	5.66E+01	5.39E+00
Mn-54	1.77E+01	1.69E+00

c. Irradiated components, control rods, etc.

None.

d. Other

None.

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

3.Solid Waste Disposition

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
23	Motor Freight (exclusive use only)	CNSI, Barnwell, SC
16	Motor Freight (exclusive use only)	AERC, Oak Ridge, TN
16	Motor Freight (exclusive use only)	Hake, Memphis, TN

B. IRRADIATED FUEL SHIPMENTS (Disposition)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
None		

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
July Through December 1997

Docket Numbers: 50-237/50-249

UNIT 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	6-month period	Est. Total Error, %
a.	Spent resins, filter sludges, evaporator bottoms, etc.	m^3	5.65E+01	12.4
		Ci	5.98E+02	
b.	Dry compressible waste, contaminated equipment, etc.	m^3	2.54E+03	16.6
		Ci	1.44E+01	
c.	Irradiated components, control rods, etc.	m^3	5.60E-01	20
		Ci	1.10E+04	
d.	Other: Soil/Sludge	m^3	1.44E+02	20
		Ci	4.14E-03	

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

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

	Percent %	Curies
Co-60	4.02E+01	2.41E+02
Fe-55	4.77E+01	2.85E+02
Mn-54	7.07E+00	4.23E+01
Cs-137	3.45E+00	2.06E+01

b. Dry compressible waste, contaminated equipment, etc.

Co-60	3.40E+01	4.88E+00
Fe-55	5.00E+01	7.27E+00
Mn-54	1.40E+01	2.07E+00

c. Irradiated components, control rods, etc.

Co-60	5.09E+01	5.60E+03
Fe-55	4.34E+01	4.79E+03
Ni-63	4.80E+00	5.29E+02

d. Other: Soil/Sludge

Fe-55	6.66E+01	2.77E-03
Cs-137	1.40E+00	5.70E-05
Co-60	2.84E+01	1.18E-03

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

3. Solid Waste Disposition

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
22	Motor Freight (exclusive use only)	CNSI, Barnwell, SC
16	Motor Freight (exclusive use only)	AERC, Oak Ridge, TN
8	Motor Freight (exclusive use only)	Hake, Memphis, TN
1	Motor Freight (exclusive use only)	SEG, Oak Ridge, TN

B. IRRADIATED FUEL SHIPMENTS (Disposition)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
None		

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January through June 1997

Docket Number: 50-10

UNIT 1 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

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

1. Type of Waste		Unit	6-month period	Est. Total Error, %
a.	Spent resins, filter sludges, evaporator bottoms, etc.	m^3	1.84E+01	12.4
		Ci	3.85E+01	
b.	Dry compressible waste, contaminated equipment, etc.	m^3	1.45E+03	16.6
		Ci	1.45E-01	
c.	Irradiated components, control rods, etc.	m^3	None	
		Ci	None	
d.	Other (describe)	m^3	None	
		Ci	None	

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

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

	Percent %	Curies
Co-60	3.01E+01	1.16E+01
Fe-55	2.09E+00	8.05E-01
Ni-63	5.91E+01	2.28E+01
Cs-137	5.74E+00	2.21E+00

b. Dry compressible waste, contaminated equipment, etc.

Co-60	2.23E+01	3.23E-02
Ni-63	5.37E+01	7.79E-02
Cs-137	1.84E+01	2.67E-02

c. Irradiated components, control rods, etc.

None.

d. Other

None.

UNIT 1 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS (Cont.)

3.Solid Waste Disposition

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
5	Motor Freight (exclusive use only)	CNSI, Barnwell, SC
15	Motor Freight (exclusive use only)	AERC, Oak Ridge, TN
4	Motor Freight (exclusive use only)	Hake, Memphis, TN

B. IRRADIATED FUEL SHIPMENTS (Disposition)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
None		

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
July through December 1997

Docket Number: 50-10

UNIT 1 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

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

1. Type of Waste		Unit	6-month period	Est. Total Error, %
a.	Spent resins, filter sludges, evaporator bottoms, etc.	m^3	None	
		Ci	None	
b.	Dry compressible waste, contaminated equipment, etc.	m^3	1.68E+03	16.6
		Ci	1.53E+00	
c.	Irradiated components, control rods, etc.	m^3	None	
		Ci	None	
d.	Other (describe)	m^3	None	
		Ci	None	

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

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

None.

b. Dry compressible waste, contaminated equipment, etc.

	Percent %	Curies
Co-60	2.23E+01	3.41E-01
Ni-63	5.37E+01	8.22E-01
Cs-137	1.84E+01	2.82E-01

c. Irradiated components, control rods, etc.

None.

d. Other

None.

UNIT 1 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS (Cont.)

3.Solid Waste Disposition

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
15	Motor Freight (exclusive use only)	AERC, Oak Ridge, TN
15	Motor Freight (exclusive use only)	Hake, Memphis, TN

B. IRRADIATED FUEL SHIPMENTS (Disposition)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
None		

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

January Through June 1997

ABNORMAL RELEASES *

A. LIQUID

1.	Number of Releases:	1**
2.	Total Activity Releases:	1.09E-3 Ci

B. GASEOUS

1.	Number of Releases:	3**
2.	Total Activity Releases:	9.59E-04 Ci

A.1 In June, 1994, elevated tritium levels were discovered in the on-site storm sewers. The highest storm drain concentration, 1.11E+03 pCi/l, from the 3rd quarter was used for both the 1st and 2nd half of 1997. The total activity released is based on an estimated typical discharge flow of 10 gallons per minute. An estimated 1.09E-03 Ci of H-3 may have been released into the environment. Various storm sewer locations on-site are now periodically analyzed for tritium.

B.1 On March 18, 1997 it was discovered that the Unit 3 Main Turbine had a gland seal leak which was allowing steam to enter the U3 Turbine Oil Reservoir. There is an exhaust fan on the reservoir which exhaust directly into the environment with no monitoring. It is unknown when the leak started. The leak stopped on March 27, 1997 when the Unit was shutdown for a refuel outage. The gland seal was repaired. The following activity is estimated to have been released to the environment:

Co-60	4.85E+02 µCi
Mn-54	5.50E+01 µCi
Xe-135	9.40E+01 µCi
Xe-135m	3.07E+02 µCi

B.2 The East Turbine Building Ventilation System was found to have a contaminated fan blade in 1996. This system is designed to pull air in from outdoors and ventilate non-Radiologically Posted Areas and then exhaust the air back into the environment. It is unknown when the fan blade become contaminated. Smears of the ductwork indicate the presence of Co-60, Ba-133 and Cs-137. An estimated 8.00E+00 µCi of Co-60, 3.00E+00 µCi of Ba-133 and 5.00E+00 µCi of Cs-137 may have been exhausted into the environment for all of 1997.

B.3 The heating steam system has low level contamination present. During operation of the system, some steam is vented directly into the environment. Isotopic analysis of the condensate in the system indicate the presence of Co-60, Mn-54 and Cs-137. An estimated 2.00E-01 µCi of Co-60, 1.60E+00 µCi of Mn-54 and 2.50E-01 µCi of Cs-137 may have been exhausted into the environment for all of 1997.

*These releases are not included in the Effluents Summation of all Releases Tables but are included in the Radiological Impact on Man.

**Releases A.1, B.2 and B.3 are abnormal releases which lasted more than the six month designation of the list.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

July Through December 1997

ABNORMAL RELEASES *

A. LIQUID

1.	Number of Releases:	0**
2.	Total Activity Releases:	1.11E-03 Ci

B. GASEOUS

1.	Number of Releases:	2**
2.	Total Activity Releases:	1.38E-02 Ci

A.1 In June, 1994, elevated tritium levels were discovered in the on-site storm sewers. The highest storm drain concentration, 1.11E+03 pCi/l, from the 3rd quarter was used for both the 1st and 2nd half of 1997. The total activity released is based on an estimated typical discharge flow of 10 gallons per minute. An estimated 1.1103 Ci of H-3 may have been released into the environment. Various storm sewer locations on-site are now periodically analyzed for tritium.

B.1 On September 4,1997 it was discovered that the gland seal on the Unit 3 Main Turbine which had been repaired during the previous refuel outage was leaking again allowing steam to enter the U3 Turbine Oil Reservoir. There is an exhaust fan on the reservoir which exhaust directly into the environment with no monitoring. It is unknown when the leak resumed. The leak continued through the end of 1997 into 1998. The following activity is estimated to have been released to the environment:

Kr-87	5.15E+02 µCi
Xe-138	1.20E+04 µCi

B.2 The East Turbine Building Ventilation System was found to have a contaminated fan blade in 1996. This system is designed to pull air in from outdoors and ventilate non-Radiologically Posted Areas and then exhaust the air back into the environment. It is unknown when the fan blade become contaminated. Smears of the ductwork indicate the presence of Co-60, Ba-133 and Cs-137. An estimated 8.00E+00 µCi of Co-60, 3.00E+00 µCi of Ba-133 and 5.00E+00 µCi of Cs-137 may have been exhausted into the environment for all of 1997. This release was attributed as an abnormal release in the first half of 1997 and the µCi values are not included in the 1997 second half totals.

B.3 The heating steam system has low level contamination present. During operation of the system, some steam is vented directly into the environment. Isotopic analysis of the condensate in the system indicate the presence of Co-60, Mn-54 and Cs-137. An estimated 2.00E-01 µCi of Co-60, 1.60E+00 µCi of Mn-54 and 2.50E-01 µCi of Cs-137 may have been exhausted into the environment for all of 1997. This release was attributed as an abnormal release in the first half of 1997 and the µCi values are not included in the 1997 second half totals.

*These releases are not included in the Effluents Summation of all Releases Tables but are included in the Radiological Impact on Man.

**Releases A.1, B.2 and B.3 are abnormal releases which lasted more than the six month designation of the list.

ABNORMAL RELEASES *

B.4 The "5 year test" was performed on the Unit 2 (September) and the Unit 3 (November) Isolation Condensers. During the test, Condenser shell side water is converted to steam and exhausted directly into the atmosphere. For Units 2 and Unit 3 the total activity released into the environment is estimated at:

H-3	7.10E+02 µCi
Fe-55	4.70E+02 µCi
Mn-54	7.51E+00 µCi
Co-60	5.31E+01 µCi
Cs-137	1.15E+00 µCi
Sb-122	3.45E-01 µCi

*These releases are not included in the Effluents Summation of all Releases Tables but are included in the Radiological Impact on Man.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

RADIOLOGICAL IMPACT ON MAN*

DOCKET NUMBER: 50-010

UNIT 1

1. Airborne Releases

	Percentage of Quarterly Objective						Percentage of
Child Receptor	Qtrly Obj.	1st QTR	2nd QTR	3rd QTR	4th Qtr	Yearly Obj.	Yearly Obj.
Gamma Air	5.0 mrad	0%	0%	0%	0%	10.0 mrad	0%
Beta Air	10.0 mrad	0%	0%	0%	0%	20.0 mrad	0%
Total Body	2.5 mrem	0%	0%	0%	0%	5.0 mrad	0%
Skin	7.5 mrem	0%	0%	0%	0%	15.0 mrad	0%
Organ	7.5 mrem	0.00076%	0.00049%	0.00068%	0.00055%	15.0 mrad	0.00123%
Critical Organ		Liver	GI LLI	GI LLI	GI LLI		GI LLI

2. Liquid Releases

Unit 1 liquid wastes are transferred to Units 2 and 3 for processing . There is no direct discharge from Unit 1.

*The doses reported include abnormal releases. Theses doses are the highest among the four analyzed receptors (infant, child, teenager and adult).

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

RADIOLOGICAL IMPACT ON MAN*

DOCKET NUMBER: 50-237

UNIT 2

1. Airborne Releases

	Percentage of Quarterly Objective						Percentage of
Child Receptor	Qtrly Obj.	1st QTR	2nd QTR	3rd QTR	4th Qtr	Yearly Obj.	Yearly Obj.
Gamma Air	5.0 mrad	0.0016%	0.0006%	0.0011%	0.0208%	10.0 mrad	0.0121%
Beta Air	10.0 mrad	0.0000%	0.0002%	0.0000%	0.0003%	20.0 mrad	0.0003%
Total Body	2.5 mrem	0.0024%	0.0009%	0.0017%	0.1100%	5.0 mrad	0.0566%
Skin	7.5 mrem	0.0009%	0.0004%	0.0006%	0.0111%	15.0 mrad	0.0065%
Organ	7.5 mrem	0.0066%	0.0161%	0.0211%	0.0095%	15.0 mrad	0.0267%
Critical Organ		Thyroid	Thyroid	Thyroid	Thyroid		Thyroid

2. Liquid Releases

	Percentage of Quarterly Objective						Percentage of
Adult Receptor	Qtrly Obj.	1st QTR	2nd QTR	3rd QTR	4th Qtr	Yearly Obj.	Yearly Obj.
Total Body	1.5 mrem	0.0043%	0.0078%	0.0014%	0.0024%	3.0 mrem	0.0080%
Organ	5.0 mrem	0.0019%	0.0035%	0.0020%	0.0070%	10.0 mrem	0.0035%
Critical Organ		Liver	Liver	Liver	Liver		Liver

*The doses reported include abnormal releases. Theses doses are the highest among the four analyzed receptors (infant, child, teenager and adult).

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
January Through December 1997

RADIOLOGICAL IMPACT ON MAN*

DOCKET NUMBER: 50-249

UNIT 3

1. Airborne Releases

	Percentage of Quarterly Objective						Percentage of
Adult Receptor	Qtrly Obj.	1st QTR	2nd QTR	3rd QTR	4th Qtr	Yearly Obj.	Yearly Obj.
Gamma Air	5.0 mrad	0.036%	0.001%	0.019%	0.045%	10.0 mrad	0.050%
Beta Air	10.0 mrad	0.001%	0.000%	0.001%	0.001%	20.0 mrad	0.002%
Total Body	2.5 mrem	0.054%	0.002%	0.028%	0.126%	5.0 mrad	0.089%
Skin	7.5 mrem	0.020%	0.001%	0.010%	0.025%	15.0 mrad	0.028%
Organ	7.5 mrem	0.108%	0.025%	0.065%	0.038%	15.0 mrad	0.113%
Critical Organ		Lung	Thyroid	Thyroid	Thyroid		Thyroid

2. Liquid Releases

	Percentage of Quarterly Objective						Percentage of
Adult Receptor	Qtrly Obj.	1st QTR	2nd QTR	3rd QTR	4th Qtr	Yearly Obj.	Yearly Obj.
Total Body	1.5 mrem	0.0043%	0.0078%	0.0014%	0.0024%	3.0 mrem	0.0080%
Organ	5.0 mrem	0.0019%	0.0035%	0.0020%	0.0070%	10.0 mrem	0.0035%
Critical Organ		Liver	Liver	Liver	Liver		Liver

*The doses reported include abnormal releases. Theses doses are the highest among the four analyzed receptors (infant, child, teenager and adult).

ComEd DRESDEN STATION
35 ft. WIND SPEED and WIND DIRECTION

January-March 1997
150-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2160
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	TOTAL
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	
																									.00
EU	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05							
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00						
1 SU	.00	.00	.05	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09			.09					
- N	.19	.60	.19	.14	.09	.19	.00	.09	.09	.00	.19	.05	.05	.09	.14	.32	2.41				2.41				
3 SS	.37	.46	.46	.19	.23	.37	.19	.32	.32	.28	.56	.09	.37	.14	.28	.23	4.86					4.86			
MS	.09	.00	.23	.05	.05	.09	.05	.05	.23	.09	.09	.09	.19	.09	.23	.23	1.85						1.85		
ES	.00	.05	.00	.00	.00	.05	.00	.05	.00	.00	.05	.00	.00	.00	.05	.00	.23							.23	
																									9.49
EU	.37	.23	.09	.23	.05	.00	.00	.05	.05	.00	.00	.09	.05	.05	.14	.28	1.67	1.67							
MU	.19	.00	.09	.00	.09	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05	.46		.46						
4 SU	.09	.09	.14	.05	.05	.00	.00	.09	.00	.00	.05	.09	.09	.00	.05	.09	.88			.88					
- N	.93	.56	.42	.97	1.25	.51	.19	.28	.42	.28	.32	.42	1.02	.83	1.20	.74	10.32				10.32				
7 SS	.79	.23	1.02	.79	.97	.97	.65	1.20	1.06	1.34	.65	.69	1.85	1.67	1.20	.42	15.51					15.51			
MS	.00	.09	.14	.00	.09	.42	.23	.09	.14	.56	.51	.28	.09	.00	.09	.05	2.78						2.78		
ES	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	.37	.00	.00	.00	.05	.00	.51							.51	
																									32.13
EU	.23	.19	.37	.05	.37	.14	.00	.00	.05	.00	.05	.37	.28	.93	.51	.37	3.89	3.89							
MU	.09	.00	.00	.00	.09	.00	.00	.00	.05	.00	.00	.14	.09	.37	.19	.23	1.25		1.25						
8 SU	.00	.00	.05	.00	.09	.14	.05	.00	.00	.00	.05	.14	.32	.28	.14	.09	1.34			1.34					
- N	.28	.05	.69	.56	1.20	.93	.51	.37	.32	.65	.32	.79	2.92	3.66	2.04	.83	16.11				16.11				
1 SS	.00	.23	.42	.23	1.25	1.11	.42	.46	.88	1.25	1.34	.56	2.78	3.06	.37	.42	14.77					14.77			
2 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.28	.09	.00	.00	.00	.00	.42						.42		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00	
																									37.78
EU	.00	.00	.00	.00	.00	.19	.00	.37	.05	.05	.28	.19	.19	.69	.00	.00	1.99	1.99							
1 MU	.00	.00	.00	.00	.05	.05	.00	.05	.00	.00	.00	.05	.09	.05	.00	.14	.46		.46						
3 SU	.00	.00	.05	.00	.00	.09	.00	.05	.05	.00	.14	.00	.28	.19	.00	.05	.88			.88					
- N	.00	.00	.05	.00	.32	.37	.19	.14	.79	.14	.09	.23	2.96	2.27	.46	.23	8.24				8.24				
1 SS	.19	.14	.05	.00	.05	.23	.42	.46	1.02	.88	.51	.05	.65	.56	.74	.23	6.16					6.16			
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	
																									17.73

ComEd DRESDEN STATION
35 ft. WIND SPEED and WIND DIRECTION

January-March 1997
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	TOTAL
EU	.00	.00	.00	.00	.00	.09	.00	.00	.00	.05	.14	.00	.00	.05	.00	.00	.32	.32							
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	.05	.00	.05	.05	.00	.00	.14			.14					
- N	.00	.00	.00	.00	.00	.00	.00	.00	.09	.09	.09	.00	.83	.19	.00	.00	1.30				1.30				
2 SS	.00	.00	.00	.00	.00	.00	.05	.00	.69	.23	.00	.00	.00	.09	.00	.00	1.06					1.06			
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	
																									2.82
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	.00	.00	.00	.00	.00	.00	.00				.00				
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05					.05			
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	
																									.05
TOT	3.80	2.92	4.54	3.24	6.34	5.97	2.96	4.12	6.34	5.97	6.11	4.40	15.14	15.28	7.87	5.00	100.00	7.92	2.18	3.33	38.38	42.41	5.05	.74	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.60	.42	.51	.28	.42	.42	.00	.42	.14	.09	.46	.65	.51	1.71	.65	.65	7.92	Extremely Unstable
.28	.00	.09	.00	.23	.05	.05	.05	.05	.00	.00	.19	.19	.42	.19	.42	2.18	Moderately Unstable
.09	.09	.28	.05	.19	.23	.05	.14	.05	.00	.28	.23	.74	.51	.19	.23	3.33	Slightly Unstable
1.39	1.20	1.34	1.67	2.87	1.99	.88	.88	1.71	1.16	1.02	1.48	7.78	7.04	3.84	2.13	38.38	Neutral
1.34	1.06	1.94	1.20	2.50	2.69	1.71	2.45	4.03	3.98	3.06	1.39	5.65	5.51	2.59	1.30	42.41	Slightly Stable
.09	.09	.37	.05	.14	.51	.28	.14	.37	.69	.88	.46	.28	.09	.32	.28	5.05	Moderately Stable
.00	.05	.00	.00	.00	.09	.00	.05	.00	.05	.42	.00	.00	.00	.09	.00	.74	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
.65	1.11	.97	.37	.42	.69	.23	.51	.65	.37	.88	.23	.60	.32	.69	.79	9.49	1.0 - 3.5 mph
2.36	1.20	1.90	2.04	2.50	1.94	1.11	1.71	1.67	2.22	1.90	1.57	3.10	2.55	2.73	1.62	32.13	3.6 - 7.5 mph
.60	.46	1.53	.83	3.01	2.31	.97	.83	1.30	1.94	2.04	2.08	6.39	8.29	3.24	1.94	37.78	7.6 - 12.5 mph
.19	.14	.14	.00	.42	.93	.60	1.06	1.90	1.06	1.02	.51	4.17	3.75	1.20	.65	17.73	12.6 - 18.5 mph
.00	.00	.00	.00	.00	.09	.05	.00	.79	.37	.28	.00	.88	.37	.00	.00	2.82	18.6 - 24.5 mph
.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05	> 24.5 mph

ComEd DRESDEN STATION
300 ft. WIND SPEED and WIND DIRECTION

January-March 1997
300-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2032
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	TOTAL
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	
																									.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	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05			.05					
- N	.05	.05	.15	.20	.05	.10	.05	.00	.05	.10	.10	.00	.10	.05	.10	.00	1.13				1.13				
3 SS	.00	.00	.00	.10	.05	.00	.10	.00	.05	.05	.00	.00	.00	.00	.00	.00	.34					.34			
MS	.10	.00	.00	.05	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20						.20		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05							.05	
																									1.77
EU	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05							
MU	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.10	.20		.20						
4 SU	.10	.20	.05	.00	.10	.05	.10	.00	.00	.00	.00	.00	.10	.05	.05	.05	.84			.84					
- N	.44	.54	.79	.44	.25	.10	.00	.20	.20	.15	.20	.34	.25	.15	.54	.44	5.02				5.02				
7 SS	.30	.20	.20	.25	.00	.20	.25	.30	.15	.25	.15	.30	.20	.00	.00	.05	2.76					2.76			
MS	.05	.00	.05	.15	.00	.00	.00	.10	.15	.05	.00	.05	.10	.10	.15	.05	.98						.98		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05							.05	
																									9.89
EU	.10	.05	.00	.10	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.34	.34							
MU	.05	.05	.00	.05	.20	.00	.00	.00	.00	.00	.00	.05	.10	.15	.05	.15	.84		.84						
8 SU	.15	.05	.00	.05	.15	.00	.00	.10	.00	.00	.05	.15	.34	.20	.25	.15	1.62			1.62					
- N	1.18	.54	.49	1.43	1.03	.79	.49	.25	.39	.39	.30	.74	1.92	1.82	1.48	1.13	14.37				14.37				
1 SS	.15	.25	.05	.30	.30	.94	.30	.94	.49	.49	.15	.54	.69	.64	.59	.39	7.19					7.19			
2 MS	.00	.00	.34	.05	.10	.00	.00	.05	.05	.05	.34	.05	.30	.25	.10	.00	1.67						1.67		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05							.05	
																									26.08
EU	.00	.25	.00	.00	.05	.00	.00	.05	.05	.00	.00	.05	.00	.25	.00	.00	.69	.69							
1 MU	.00	.05	.05	.00	.05	.00	.00	.10	.10	.00	.15	.39	.05	.44	.25	.00	1.62		1.62						
3 SU	.20	.00	.20	.00	.10	.10	.00	.05	.05	.00	.05	.15	.20	.54	.15	.20	1.97			1.97					
- N	.74	.25	.74	.84	1.33	.94	.59	.54	.30	.44	.49	.59	2.12	4.48	1.92	.89	17.18				17.18				
1 SS	.00	.34	.54	.05	.39	1.03	.54	.34	.64	.98	1.38	.69	1.57	1.77	.54	.54	11.37					11.37			
8 MS	.00	.00	.10	.00	.00	.00	.20	.05	.00	.30	.10	.44	.30	.00	.05	.15	1.67						1.67		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.10	.05	.00	.00	.20							.20	
																									34.69

ComEd DRESDEN STATION
300 ft. WIND SPEED and WIND DIRECTION

January-March 1997
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	TOTAL
EU	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05	.00	.00	.10	.00	.00	.20	.20							
I MU	.00	.00	.00	.00	.00	.05	.00	.10	.05	.05	.05	.00	.00	.15	.00	.00	.44		.44						
9 SU	.00	.00	.00	.00	.05	.10	.05	.00	.05	.05	.15	.05	.00	.25	.00	.00	.74			.74					
- N	.10	.15	.54	.00	.49	.39	.44	.30	1.03	.25	.20	.54	3.20	3.74	.79	.25	12.40				12.40				
2 SS	.00	.00	.00	.00	.05	.25	.39	.25	.30	.49	.69	.30	.84	1.08	.25	.05	4.92					4.92			
4 MS	.00	.00	.00	.00	.00	.10	.05	.00	.00	.05	.05	.05	.10	.00	.00	.00	.39						.39		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.15							.15	
																									19.24
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.10	.10							
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.05	.00	.00	.25		.25						
T SU	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15			.15					
N	.15	.25	.15	.00	.15	.30	.05	.00	.00	.20	.15	.05	1.67	1.48	.59	.25	5.41				5.41				
2 SS	.00	.00	.00	.00	.00	.10	.05	.00	.39	.94	.39	.00	.30	.10	.10	.05	2.41					2.41			
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	
																									8.32
TOT	3.89	3.20	4.48	4.04	4.97	5.71	3.64	3.74	4.48	5.36	5.41	5.61	14.57	17.96	7.92	5.02	100.00	1.38	3.35	5.36	55.51	28.99	4.92	.49	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.10	.30	.05	.10	.15	.00	.00	.10	.05	.00	.05	.05	.00	.44	.00	.00	1.38	Extremely Unstable
.10	.10	.05	.05	.25	.05	.00	.20	.15	.05	.39	.49	.15	.79	.30	.25	3.35	Moderately Unstable
.44	.25	.25	.05	.39	.39	.15	.15	.10	.05	.25	.34	.64	1.03	.44	.44	5.36	Slightly Unstable
2.66	1.77	2.85	2.90	3.30	2.61	1.62	1.28	1.97	1.53	1.43	2.26	9.25	11.71	5.41	2.95	55.51	Neutral
.44	.79	.79	.69	.79	2.51	1.62	1.82	2.02	3.20	2.76	1.82	3.59	3.59	1.48	1.08	28.99	Slightly Stable
.15	.00	.49	.25	.10	.15	.25	.20	.20	.44	.49	.59	.79	.34	.30	.20	4.92	Moderately Stable
.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.05	.05	.15	.05	.00	.10	.49	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
.15	.05	.15	.34	.10	.15	.15	.00	.10	.15	.10	.00	.10	.05	.10	.10	1.77	1.0 - 3.5 mph
.94	.94	1.13	.84	.34	.34	.34	.59	.49	.44	.34	.74	.64	.30	.74	.74	9.89	3.6 - 7.5 mph
1.62	.94	.89	1.97	1.87	1.72	.79	1.33	.94	.94	.84	1.53	3.40	3.05	2.46	1.82	26.08	7.6 - 12.5 mph
.94	.89	1.62	.89	1.92	2.07	1.33	1.13	1.13	1.77	2.17	2.31	4.33	7.53	2.90	1.77	34.69	12.6 - 18.5 mph
.10	.15	.54	.00	.59	.89	.94	.69	1.43	.94	1.23	.98	4.13	5.31	1.03	.30	19.24	18.6 - 24.5 mph
.15	.25	.15	.00	.15	.54	.10	.00	.39	1.13	.74	.05	1.97	1.72	.69	.30	8.32	> 24.5 mph

ComEd DRESDEN STATION
35 ft. WIND SPEED and WIND DIRECTION

April-June 1997
150-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2113
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	TOTAL
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	
																									.00
EU	.00	.00	.05	.00	.05	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.14	.14							
MU	.05	.00	.00	.00	.00	.05	.00	.00	.00	.05	.05	.00	.00	.00	.00	.00	.19		.19						
1 SU	.00	.05	.00	.09	.00	.05	.00	.00	.05	.00	.00	.00	.05	.00	.09	.00	.38			.38					
- N	.19	.09	.14	.14	.19	.19	.14	.05	.19	.09	.09	.05	.05	.05	.00	.05	1.70				1.70				
3 SS	.38	.77	.82	.67	.91	.67	.43	.24	.53	.10	.29	.10	.05	.05	.29	.19	6.48					6.48			
MS	.29	.24	.29	.29	.53	.53	.43	.19	.24	.39	.29	.14	.24	.29	.19	.43	5.02						5.02		
ES	.19	.14	.09	.19	.33	.24	.19	.14	.19	.09	.14	.19	.05	.09	.33	.43	3.03							3.03	
																									16.94
EU	.38	.38	.85	.66	.24	.43	.43	.38	.38	.19	.09	.43	.09	.05	.24	.52	5.73	5.73							
MU	.14	.00	.19	.09	.05	.33	.09	.05	.05	.05	.14	.09	.09	.05	.09	.09	1.61		1.61						
4 SU	.05	.00	.09	.09	.09	.14	.00	.00	.00	.09	.05	.19	.00	.05	.09	.14	1.09			1.09					
- N	.19	.28	1.33	1.23	1.47	.95	.33	.33	.52	.28	.43	.52	.47	.19	.14	.38	9.04				9.04				
7 SS	.47	1.28	2.46	1.70	1.70	1.80	.57	1.09	.95	1.09	.57	.62	.76	.38	.66	.33	16.42					16.42			
MS	.19	.14	.09	.05	.14	1.04	.57	.38	.99	.33	.38	.14	.24	.19	.14	.47	5.49						5.49		
ES	.00	.00	.00	.00	.24	.47	.05	.05	.00	.00	.05	.00	.00	.00	.05	.14	1.04							1.04	
																									40.42
EU	.38	.66	.90	.33	.62	.52	.52	.80	.09	.43	.00	.47	.14	.85	.95	.43	8.09	8.09							
MU	.00	.00	.24	.14	.00	.09	.14	.09	.09	.09	.05	.14	.05	.09	.09	.00	1.33		1.33						
8 SU	.00	.09	.28	.05	.05	.05	.09	.28	.00	.00	.05	.14	.00	.05	.09	.00	1.23			1.23					
- N	.38	.09	1.56	.85	.95	.71	.28	.19	.24	.24	.09	.47	.24	.90	.80	.71	8.71				8.71				
1 SS	.00	.05	1.04	.33	.66	.38	.00	.33	.52	1.47	.38	.38	.71	.66	.47	.33	7.71					7.71			
2 MS	.00	.00	.00	.00	.00	.00	.05	.00	.14	.00	.05	.00	.05	.00	.00	.00	.28						.28		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00	
																									27.35
EU	.00	.00	.28	.00	.38	.00	.00	.05	.24	.80	.24	.09	.38	.76	.76	.09	4.07	4.07							
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.14	.00	.00	.00	.05	.05	.00	.28		.28						
3 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	.14	.00	.09	.05	.28	.00	.76			.76					
- N	.00	.00	.09	.00	.05	.14	.19	.47	.05	.47	.14	.14	.19	.71	.38	.24	3.27				3.27				
1 SS	.00	.00	.19	.00	.09	.09	.24	.19	.38	.76	.38	.14	.47	.52	.14	.05	3.64					3.64			
8 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05						.05		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00	
																									12.07

ComEd DRESDEN STATION
35 ft. WIND SPEED and WIND DIRECTION

April-June 1997
150-35 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	STABILITY CLASSES EU	MU	SU	N	SS	MS	ES	TOTAL
EU	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.09							
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	.05	.19	.05	.05	.14	.14	.52	.09	.00	.00	1.23				1.23				
2 SS	.00	.00	.00	.00	.00	.00	.00	.05	.47	.14	.14	.05	.00	.05	.00	.00	.90					.90			
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	
																									2.22
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.05	.05							
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.00	.00	.00	.09		.09						
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	.05	.05	.00	.19	.33	.14	.00	.00	.00	.76				.76				
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.00	.00	.00	.00	.00	.09					.09			
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	
																									.99
TOT	3.28	4.28	11.00	6.92	8.73	8.87	4.89	5.64	6.50	7.58	4.60	5.07	5.12	6.16	6.35	5.03	100.00	18.17	3.50	3.45	24.70	35.26	10.84	4.07	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.76	1.04	2.08	.99	1.28	.95	1.04	1.28	.71	1.42	.33	1.04	.62	1.66	1.94	1.04	18.17	Extremely Unstable
.19	.00	.43	.24	.05	.47	.24	.14	.19	.33	.28	.28	.14	.19	.24	.09	3.50	Moderately Unstable
.05	.14	.38	.24	.14	.24	.09	.28	.05	.28	.24	.33	.14	.14	.57	.14	3.45	Slightly Unstable
.76	.47	3.12	2.22	2.65	1.99	.99	1.28	1.09	1.14	1.09	1.66	1.61	1.94	1.33	1.37	24.70	Neutral
.86	2.09	4.51	2.71	3.37	2.94	1.24	1.90	2.89	3.60	1.76	1.28	1.99	1.66	1.57	.90	35.26	Slightly Stable
.48	.38	.38	.34	.67	1.57	1.05	.57	1.38	.72	.72	.29	.57	.48	.33	.91	10.84	Moderately Stable
.19	.14	.09	.19	.57	.71	.24	.19	.19	.09	.19	.19	.05	.09	.38	.57	4.07	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
1.10	1.29	1.39	1.39	2.01	1.72	1.20	.67	1.20	.72	.86	.48	.43	.48	.91	1.10	16.94	1.0 - 3.5 mph
1.42	2.08	5.02	3.83	3.93	5.16	2.04	2.27	2.89	2.04	1.70	1.99	1.66	.90	1.42	2.08	40.42	3.6 - 7.5 mph
.76	.90	4.02	1.70	2.27	1.75	1.09	1.70	1.09	2.22	.62	1.61	1.18	2.56	2.41	1.47	27.35	7.6 - 12.5 mph
.00	.00	.57	.00	.52	.24	.43	.71	.71	2.37	.90	.38	1.18	2.08	1.61	.38	12.07	12.6 - 18.5 mph
.00	.00	.00	.00	.00	.00	.14	.24	.52	.19	.28	.19	.52	.14	.00	.00	2.22	18.6 - 24.5 mph
.00	.00	.00	.00	.00	.00	.00	.05	.09	.05	.24	.43	.14	.00	.00	.00	.99	> 24.5 mph

ComEd DRESDEN STATION
300 ft. WIND SPEED and WIND DIRECTION

April-June 1997
300-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2182
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	TOTAL
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	
																									.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
MU	.00	.00	.00	.05	.00	.05	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.14		.14						
1 SU	.00	.05	.05	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	.00	.00	.18			.18					
- N	.09	.00	.14	.00	.00	.05	.18	.00	.05	.09	.00	.00	.05	.00	.05	.00	.69				.69				
3 SS	.00	.05	.00	.14	.05	.05	.05	.05	.05	.05	.09	.14	.00	.00	.00	.00	.69					.69			
MS	.00	.00	.05	.00	.09	.00	.05	.05	.00	.00	.00	.00	.00	.05	.00	.00	.27						.27		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00	
																									1.97
EU	.05	.00	.09	.32	.05	.09	.09	.14	.23	.09	.00	.00	.05	.00	.00	.05	1.24	1.24							
MU	.14	.00	.05	.18	.05	.18	.09	.09	.09	.09	.05	.18	.05	.00	.00	.05	1.28		1.28						
4 SU	.23	.00	.00	.14	.05	.32	.32	.14	.05	.14	.14	.14	.00	.05	.14	.05	1.88			1.88					
- N	.14	.23	.14	.73	.46	.32	.46	.09	.32	.23	.27	.14	.14	.09	.05	.14	3.94				3.94				
7 SS	.05	.00	.32	.60	.23	.37	.37	.18	.27	.41	.14	.27	.09	.05	.05	.14	3.53					3.53			
MS	.05	.00	.00	.05	.14	.00	.14	.32	.18	.14	.05	.00	.05	.18	.18	.00	1.47						1.47		
ES	.00	.00	.00	.00	.05	.00	.00	.09	.18	.00	.00	.05	.05	.14	.05	.00	.60							.60	
																									13.93
EU	.14	.41	.64	.32	.23	.09	.05	.46	.05	.09	.00	.05	.05	.05	.09	.55	3.25	3.25							
MU	.14	.14	.18	.23	.05	.18	.18	.27	.00	.09	.09	.09	.00	.14	.23	.18	2.20		2.20						
8 SU	.09	.00	.27	.23	.18	.27	.09	.41	.09	.05	.09	.32	.09	.18	.18	.05	2.61			2.61					
- N	.23	.23	1.70	2.02	1.56	1.05	.69	.78	.41	.64	.23	.50	.82	.27	.14	.23	11.50				11.50				
1 SS	.05	.32	.73	.78	.87	.78	.73	.87	.78	.46	.32	.64	.27	.27	.46	.23	8.57					8.57			
2 MS	.14	.05	.05	.09	.14	.23	.69	.37	.50	.18	.23	.27	.27	.14	.18	.09	3.62						3.62		
ES	.00	.00	.00	.00	.00	.27	.05	.05	.05	.00	.00	.05	.05	.00	.09	.14	.73							.73	
																									32.49
EU	.18	.18	.37	.14	.37	.23	.14	.23	.05	.23	.05	.05	.00	.41	.32	.05	2.98	2.98							
1 MU	.18	.14	.18	.00	.05	.09	.05	.14	.00	.23	.00	.23	.05	.18	.32	.09	1.92		1.92						
3 SU	.05	.18	.23	.14	.05	.00	.09	.09	.00	.18	.14	.18	.00	.09	.05	.14	1.60			1.60					
- N	.41	.32	1.56	1.05	.87	.60	.32	.18	.32	.50	.05	.46	.14	.41	1.01	1.01	9.21				9.21				
1 SS	.37	.96	1.10	.37	.60	.64	.14	.37	.50	1.42	.73	.23	.46	.37	.41	.64	9.30					9.30			
8 MS	.37	.00	.09	.05	.14	.00	.46	.32	.55	.37	.18	.05	.09	.09	.05	.37	3.16						3.16		
ES	.00	.00	.00	.00	.00	.00	.05	.00	.00	.09	.00	.05	.00	.00	.00	.09	.27							.27	
																									28.46

ComEd DRESDEN STATION
300 ft. WIND SPEED and WIND DIRECTION

April-June 1997
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	TOTAL
EU	.00	.05	.05	.00	.23	.00	.00	.00	.00	.18	.09	.00	.05	.37	.23	.00	1.24	1.24							
1 MU	.00	.05	.09	.00	.05	.00	.00	.00	.00	.32	.09	.05	.00	.18	.18	.09	1.10		1.10						
9 SU	.00	.05	.05	.00	.00	.00	.05	.00	.05	.23	.09	.00	.00	.18	.14	.09	.92			.92					
- N	.32	.05	1.01	.14	.82	.32	.14	.46	.27	.50	.27	.23	.18	.96	.64	.18	6.51				6.51				
2 SS	.09	.27	.09	.00	.09	.05	.00	.09	.41	1.10	.37	.09	.60	.27	.05	.09	3.67					3.67			
4 MS	.09	.05	.00	.00	.00	.00	.05	.00	.23	.37	.00	.00	.05	.14	.00	.18	1.15						1.15		
ES	.00	.00	.00	.00	.00	.00	.05	.00	.00	.14	.09	.00	.00	.00	.00	.00	.27							.27	
																									14.85
EU	.00	.00	.09	.00	.09	.00	.00	.00	.00	.00	.00	.00	.14	.09	.09	.00	.50	.50							
G MU	.00	.00	.05	.00	.05	.00	.00	.00	.00	.00	.00	.05	.09	.09	.14	.05	.50		.50						
T SU	.00	.00	.05	.00	.00	.00	.05	.00	.00	.05	.05	.05	.00	.14	.18	.00	.55			.55					
N	.00	.00	.27	.00	.05	.00	.14	.37	.18	.50	.50	.55	1.05	.87	.27	.27	5.04				5.04				
2 SS	.00	.00	.00	.00	.00	.09	.09	.09	.46	.23	.32	.09	.00	.14	.09	.05	1.65					1.65			
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05						.05		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00	
																									8.30
TOT	3.57	3.76	9.67	7.75	7.61	6.32	6.00	6.69	6.32	9.44	4.72	5.22	4.95	6.65	6.05	5.27	100.00	9.21	7.15	7.75	36.89	27.41	9.72	1.88	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.37	.64	1.24	.78	.96	.41	.27	.82	.32	.60	.14	.09	.27	.92	.73	.64	9.21	Extremely Unstable
.46	.32	.55	.46	.23	.50	.32	.50	.09	.73	.23	.64	.18	.60	.87	.46	7.15	Moderately Unstable
.37	.27	.64	.50	.27	.60	.60	.64	.18	.69	.50	.69	.09	.69	.69	.32	7.75	Slightly Unstable
1.19	.82	4.81	3.94	3.76	2.34	1.92	1.88	1.56	2.47	1.33	1.88	2.38	2.61	2.15	1.83	36.89	Neutral
.55	1.60	2.25	1.88	1.83	1.97	1.37	1.65	2.47	3.67	1.97	1.47	1.42	1.10	1.05	1.15	27.41	Slightly Stable
.64	.09	.18	.18	.50	.23	1.37	1.05	1.47	1.05	.46	.32	.50	.60	.41	.64	9.72	Moderately Stable
.00	.00	.00	.00	.05	.27	.14	.14	.23	.23	.09	.14	.09	.14	.14	.23	1.88	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	.09	.23	.18	.14	.14	.27	.09	.09	.18	.09	.18	.05	.09	.05	.00	1.97	1.0 - 3.5 mph
.64	.23	.60	2.02	1.01	1.28	1.47	1.05	1.33	1.10	.64	.78	.41	.50	.46	.41	13.93	3.6 - 7.5 mph
.78	1.15	3.57	3.67	3.02	2.89	2.47	3.21	1.88	1.51	.96	1.92	1.56	1.05	1.37	1.47	32.49	7.6 - 12.5 mph
1.56	1.79	3.53	1.74	2.06	1.56	1.24	1.33	1.42	3.02	1.15	1.24	.73	1.56	2.15	2.38	28.46	12.6 - 18.5 mph
.50	.50	1.28	.14	1.19	.37	.27	.55	.96	2.84	1.01	.37	.87	2.11	1.24	.64	14.85	18.6 - 24.5 mph
.00	.00	.46	.00	.18	.09	.27	.46	.64	.78	.87	.73	1.33	1.33	.78	.37	8.30	> 24.5 mph

ComEd DRESDEN STATION
35 ft. WIND SPEED and WIND DIRECTION

July-September 1997
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	TOTAL
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	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05							.05	
																									.05
EU	.00	.05	.09	.14	.09	.00	.09	.00	.05	.09	.05	.00	.00	.00	.00	.05	.68	.68							
MU	.00	.00	.09	.09	.05	.00	.00	.09	.00	.00	.00	.05	.00	.00	.00	.00	.36		.36						
1 SU	.00	.00	.00	.00	.18	.05	.00	.00	.00	.00	.00	.05	.05	.05	.00	.05	.41			.41					
- N	.27	.23	.00	.09	.18	.14	.14	.00	.14	.09	.05	.18	.14	.14	.23	.14	2.13				2.13				
3 SS	1.04	1.09	.95	.86	.82	.59	.27	.27	.54	.23	.36	.14	.41	.36	.72	1.09	9.74					9.74			
MS	.91	1.04	.32	.27	.72	.36	.59	.54	.59	.41	.68	.23	.27	.36	.27	1.18	8.74						8.74		
ES	.45	.05	.14	.05	.27	.54	.27	.14	.14	.14	.18	.27	.09	.14	.54	.68	4.08							4.08	
																									26.13
EU	1.00	1.00	.95	1.49	.59	1.22	1.31	.45	.36	.77	.32	.82	.59	.32	.68	.82	12.68	12.68							
MU	.18	.14	.18	.05	.09	.14	.14	.00	.18	.23	.00	.14	.09	.23	.14	.18	2.08		2.08						
4 SU	.18	.09	.05	.00	.09	.14	.09	.05	.05	.09	.00	.05	.05	.18	.14	.23	1.45			1.45					
- N	.72	.68	1.18	1.31	1.27	.54	.23	.77	.45	.82	.50	.14	.68	.77	.45	.63	11.14				11.14				
7 SS	.32	.82	2.22	1.09	1.99	1.63	.77	1.09	.91	1.09	.86	.36	.72	1.18	1.13	1.36	17.53					17.53			
MS	.09	.05	.54	.00	.27	.86	.50	.27	.00	.36	.59	.14	.18	.09	.14	.14	4.21						4.21		
ES	.00	.00	.00	.00	.05	.41	.00	.05	.00	.18	.91	.27	.05	.05	.09	.00	2.04							2.04	
																									51.13
EU	.18	.32	1.09	.00	.00	.14	.45	.45	.36	.45	1.00	1.04	.27	.23	.45	1.00	7.43	7.43							
MU	.00	.00	.05	.00	.05	.00	.05	.00	.05	.00	.05	.23	.09	.00	.05	.00	.59		.59						
8 SU	.00	.00	.09	.00	.00	.00	.00	.18	.09	.09	.23	.18	.14	.09	.05	.09	1.22			1.22					
- N	.00	.05	.59	.00	.05	.00	.09	1.13	.82	.27	.63	.54	.50	.14	.41	.00	5.21				5.21				
1 SS	.00	.05	.36	.00	.05	.09	.14	.59	1.45	.54	.45	.18	.45	.54	.27	.05	5.21					5.21			
2 MS	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.09	.05	.05	.00	.00	.00	.23						.23		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.09							.09	
																									19.97
EU	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05	.14	.23	.18	.05	.00	.00	.68	.68							
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.09	.00	.00	.00	.00	.18		.18						
3 SU	.00	.00	.00	.00	.00	.00	.00	.00	.09	.05	.14	.00	.09	.00	.00	.00	.36			.36					
- N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	.05	.27	.14	.05	.00	.00	.82				.82				
1 SS	.00	.00	.00	.00	.00	.00	.00	.05	.05	.14	.05	.00	.00	.14	.00	.00	.41					.41			
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	
																									2.45

ComEd DRESDEN STATION
35 ft. WIND SPEED and WIND DIRECTION

July-September 1997
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	TOTAL
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	.05							
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05		.05						
9 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05			.05					
- N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.09				.09				
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	
																									.23
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	.00	.00	.05	.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	
																									.05
TOT	5.34	5.62	8.88	5.48	6.79	6.84	5.12	6.20	6.34	6.43	7.38	5.62	5.39	5.16	5.75	7.65	100.00	21.51	3.26	3.49	19.43	32.88	13.18	6.25	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
1.18	1.36	2.13	1.63	.68	1.36	1.86	.95	.77	1.36	1.49	2.08	1.09	.59	1.13	1.86	21.51	Extremely Unstable
.18	.14	.32	.14	.18	.14	.18	.09	.27	.27	.05	.50	.23	.23	.18	.18	3.26	Moderately Unstable
.18	.09	.14	.00	.27	.18	.09	.23	.23	.23	.36	.27	.36	.32	.18	.36	3.49	Slightly Unstable
1.00	.95	1.77	1.40	1.49	.68	.45	1.90	1.40	1.49	1.22	1.13	1.49	1.18	1.09	.77	19.43	Neutral
1.36	1.95	3.53	1.95	2.85	2.31	1.18	1.99	2.94	1.99	1.72	.68	1.59	2.22	2.13	2.49	32.88	Slightly Stable
1.00	1.09	.86	.27	1.00	1.22	1.09	.86	.59	.77	1.36	.41	.50	.45	.41	1.31	13.18	Moderately Stable
.45	.05	.14	.09	.32	.95	.27	.18	.14	.32	1.18	.54	.14	.18	.63	.68	6.25	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	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	C A L M
2.67	2.45	1.59	1.49	2.31	1.68	1.36	1.04	1.45	.95	1.31	.91	.95	1.04	1.77	3.17	26.13	1.0 - 3.5 mph
2.49	2.76	5.12	3.94	4.35	4.94	3.03	2.67	1.95	3.53	3.17	1.90	2.36	2.81	2.76	3.35	51.13	3.6 - 7.5 mph
.18	.41	2.17	.00	.14	.23	.72	2.40	2.76	1.36	2.54	2.22	1.49	1.00	1.22	1.13	19.97	7.6 - 12.5 mph
.00	.00	.00	.00	.00	.00	.00	.09	.18	.59	.36	.59	.41	.23	.00	.00	2.45	12.6 - 18.5 mph
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.09	.00	.00	.23	18.6 - 24.5 mph
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	> 24.5 mph

ComEd DRESDEN STATION
300 ft. WIND SPEED and WIND DIRECTION

July-September 1997
300-35 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	TOTAL
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	
																									.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05	.00	.00	.00	.00	.09	.09							
MU	.00	.05	.05	.00	.05	.00	.00	.00	.00	.00	.09	.05	.09	.00	.05	.00	.41		.41						
1 SU	.00	.00	.00	.14	.00	.05	.09	.00	.00	.00	.00	.00	.00	.09	.05	.00	.41			.41					
- N	.00	.00	.09	.00	.05	.00	.09	.05	.05	.05	.05	.14	.09	.09	.05	.00	.77				.77				
3 SS	.05	.00	.09	.00	.05	.14	.05	.05	.05	.00	.00	.00	.00	.09	.05	.00	.59					.59			
MS	.00	.00	.00	.09	.00	.05	.05	.00	.05	.05	.05	.00	.09	.00	.00	.00	.41						.41		
ES	.05	.09	.00	.00	.05	.05	.00	.00	.05	.00	.00	.05	.00	.00	.05	.09	.45							.45	
																									3.13
EU	.09	.23	.09	.36	.36	.54	.27	.14	.14	.27	.23	.14	.09	.05	.05	.05	3.08	3.08							
MU	.00	.05	.14	.36	.14	.32	.18	.09	.05	.23	.18	.23	.14	.14	.09	.05	2.36		2.36						
4 SU	.23	.05	.14	.32	.05	.18	.23	.09	.14	.18	.00	.14	.09	.09	.00	.05	1.95			1.95					
- N	.18	.27	.45	1.09	.32	.36	.18	.27	.27	.45	.00	.27	.36	.36	.09	.27	5.21				5.21				
7 SS	.09	.14	.18	.72	.27	.18	.18	.50	.18	.14	.23	.05	.27	.27	.18	.09	3.67					3.67			
MS	.09	.05	.18	.23	.14	.18	.23	.23	.00	.18	.05	.18	.09	.09	.14	.09	2.13						2.13		
ES	.05	.05	.14	.09	.05	.00	.05	.00	.05	.09	.14	.09	.05	.18	.05	.14	1.18							1.18	
																									19.57
EU	.32	.59	.14	.32	.09	.27	.72	.23	.23	.63	.09	.59	.41	.14	.45	.09	5.30	5.30							
MU	.18	.05	.18	.14	.00	.00	.23	.27	.32	.09	.14	.32	.09	.14	.27	.32	2.72		2.72						
8 SU	.05	.27	.14	.14	.09	.09	.18	.14	.18	.18	.09	.23	.09	.18	.18	.27	2.49			2.49					
- N	.91	.91	1.00	1.49	1.04	.68	.27	.95	.50	.91	.36	.27	.50	.63	.54	.68	11.64				11.64				
1 SS	.45	.72	1.40	.82	.86	.36	.68	.91	.50	.36	.63	.86	.27	.27	.59	.41	10.10					10.10			
2 MS	.09	.54	.27	.36	.05	.09	.41	.54	.45	.14	.18	.54	.27	.18	.36	.18	4.66						4.66		
ES	.05	.14	.05	.00	.00	.00	.09	.14	.18	.14	.14	.05	.00	.05	.00	.00	1.00							1.00	
																									37.91
EU	.14	.68	.45	.00	.00	.00	.05	.00	.00	.09	.72	.23	.00	.00	.05	.63	3.03	3.03							
1 MU	.18	.09	.09	.00	.00	.00	.05	.05	.05	.05	.18	.27	.14	.00	.14	.32	1.59		1.59						
3 SU	.14	.09	.18	.00	.05	.05	.00	.09	.18	.09	.09	.18	.23	.05	.05	.14	1.59			1.59					
- N	.63	.91	1.00	.00	.45	.14	.09	.86	1.18	.41	.54	.50	.59	.36	.45	.72	8.83				8.83				
1 SS	.27	.86	.82	.00	.86	.50	.45	.68	.68	1.13	1.27	.45	.54	1.00	.86	.59	10.96					10.96			
8 MS	.32	.23	.18	.00	.05	.23	.54	.14	.32	.54	.68	.59	.32	.18	.14	.23	4.66						4.66		
ES	.00	.05	.09	.00	.00	.00	.23	.23	.00	.14	.09	.05	.23	.00	.00	.00	1.09							1.09	
																									31.75

ComEd DRESDEN STATION
300 ft. WIND SPEED and WIND DIRECTION

July-September 1997
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	TOTAL
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05	.00	.09	.18	.18							
1 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.00	.09		.09						
9 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.18	.23	.00	.05	.05	.59			.59					
- N	.00	.14	.14	.00	.00	.05	.00	.00	.18	.23	.32	.32	.05	.14	.14	.00	1.68				1.68				
2 SS	.23	.18	.14	.00	.00	.00	.05	.09	.72	.59	.09	.14	.18	.41	.36	.05	3.22					3.22			
4 MS	.05	.00	.23	.00	.00	.00	.09	.00	.00	.00	.14	.27	.05	.05	.00	.00	.86						.86		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05							.05	
																									6.66
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.14	.14							
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05		.05						
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.14	.00	.00	.00	.18			.18					
N	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.05	.00	.14	.23	.00	.00	.54				.54				
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05	.00	.00	.09					.09			
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	
																									1.00
TOT	4.80	7.38	8.02	6.66	5.03	4.48	5.71	6.70	6.75	7.43	6.93	7.61	5.93	5.57	5.43	5.57	100.00	11.82	7.20	7.20	28.67	28.62	12.73	3.76	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.54	1.49	.68	.68	.45	.82	1.04	.36	.41	1.00	1.04	1.18	.50	.23	.54	.86	11.82	Extremely Unstable
.36	.23	.45	.50	.18	.32	.45	.41	.41	.36	.59	.86	.54	.32	.54	.68	7.20	Moderately Unstable
.41	.41	.45	.59	.18	.36	.50	.32	.50	.45	.27	.77	.77	.41	.32	.50	7.20	Slightly Unstable
1.72	2.22	2.67	2.58	1.86	1.22	.63	2.13	2.22	2.13	1.31	1.49	1.72	1.81	1.27	1.68	28.67	Neutral
1.09	1.90	2.63	1.54	2.04	1.18	1.40	2.22	2.13	2.22	2.26	1.49	1.27	2.08	2.04	1.13	28.62	Slightly Stable
.54	.82	.86	.68	.23	.54	1.31	.91	.82	.91	1.09	1.59	.82	.50	.63	.50	12.73	Moderately Stable
.14	.32	.27	.09	.09	.05	.36	.36	.27	.36	.36	.23	.32	.23	.09	.23	3.76	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	.14	.23	.23	.18	.27	.27	.09	.23	.09	.18	.27	.27	.27	.23	.09	3.13	1.0 - 3.5 mph
.72	.82	1.31	3.17	1.31	1.77	1.31	1.31	.82	1.54	.82	1.09	1.09	1.18	.59	.72	19.57	3.6 - 7.5 mph
2.04	3.22	3.17	3.26	2.13	1.49	2.58	3.17	2.36	2.45	1.63	2.85	1.63	1.59	2.40	1.95	37.91	7.6 - 12.5 mph
1.68	2.90	2.81	.00	1.40	.91	1.40	2.04	2.40	2.45	3.58	2.26	2.04	1.59	1.68	2.63	31.75	12.6 - 18.5 mph
.27	.32	.50	.00	.00	.05	.14	.09	.91	.82	.63	.95	.59	.68	.54	.18	6.66	18.6 - 24.5 mph
.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.09	.18	.32	.27	.00	.00	1.00	> 24.5 mph

ComEd DRESDEN STATION
35 ft. WIND SPEED and WIND DIRECTION

October-December 1997
150-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2190
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	TOTAL
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	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05							.05	
																									.05
EU	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05							
MU	.00	.05	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09		.09						
1 SU	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.09			.09					
- N	.18	.09	.23	.14	.09	.05	.09	.09	.14	.00	.05	.00	.00	.18	.14	.14	1.60				1.60				
3 SS	.32	.41	.23	.32	.27	.09	.37	.41	.32	.14	.18	.14	.37	.37	.59	.41	4.93					4.93			
MS	.27	.23	.09	.09	.14	.37	.46	.41	.37	.32	.27	.14	.18	.18	.32	.37	4.20						4.20		
ES	.32	.00	.05	.00	.14	.32	.14	.05	.23	.09	.05	.05	.09	.14	.27	.18	2.10							2.10	
																									13.06
EU	.14	.14	.37	.14	.00	.32	.09	.05	.05	.05	.00	.00	.14	.50	.14	.18	2.28	2.28							
MU	.09	.09	.00	.00	.05	.05	.05	.09	.05	.00	.00	.05	.05	.09	.05	.09	.78		.78						
4 SU	.00	.05	.00	.00	.05	.00	.00	.00	.05	.00	.00	.00	.00	.18	.05	.09	.46			.46					
- N	1.05	.46	.41	1.42	1.87	.73	.09	.37	.32	.46	.46	.32	1.37	1.60	1.14	1.46	13.52				13.52				
7 SS	1.32	.91	1.28	1.14	.87	.96	.37	1.23	1.19	.91	.64	.32	2.01	1.46	1.14	2.65	18.40					18.40			
MS	.18	.27	.00	.00	.00	.68	.64	.27	.64	1.32	1.00	.27	.18	.27	.00	.41	6.16						6.16		
ES	.00	.00	.00	.00	.05	.46	.18	.00	.09	.32	.37	.00	.00	.00	.09	.09	1.64							1.64	
																									43.24
EU	.23	.00	.32	.00	.00	.18	.09	.05	.00	.27	.14	.00	.14	.32	.23	.37	2.33	2.33							
MU	.00	.05	.05	.00	.14	.05	.05	.00	.00	.05	.14	.00	.00	.23	.14	.14	1.00		1.00						
8 SU	.14	.00	.05	.00	.00	.05	.05	.05	.00	.09	.09	.00	.09	.18	.09	.09	.96			.96					
- N	.55	1.05	.37	.82	1.37	.59	.27	.59	.68	1.05	1.00	.64	4.20	3.38	.55	.91	18.04				18.04				
1 SS	.50	.27	.59	.37	.00	.00	.23	.96	2.15	1.83	1.32	.78	1.23	.59	.32	.96	12.10					12.10			
2 MS	.00	.00	.00	.00	.00	.00	.00	.00	.14	.09	.14	.05	.00	.00	.00	.00	.41						.41		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05							.05	
																									34.89
EU	.00	.00	.00	.00	.00	.05	.00	.00	.00	.27	.18	.05	.05	.14	.09	.00	.82	.82							
1 MU	.00	.00	.00	.00	.00	.05	.00	.00	.05	.14	.09	.00	.00	.05	.00	.00	.37		.37						
3 SU	.00	.00	.00	.00	.05	.00	.00	.00	.05	.14	.05	.00	.05	.00	.05	.00	.37			.37					
- N	.00	.05	.05	.09	.05	.00	.00	.23	1.00	.37	.46	.27	.46	.50	.09	.14	3.74				3.74				
1 SS	.00	.05	.09	.00	.00	.00	.00	.46	.91	.64	.18	.18	.09	.00	.00	.09	2.69					2.69			
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	
																									7.99

ComEd DRESDEN STATION
35 ft. WIND SPEED and WIND DIRECTION

October-December 1997
150-35 ft. DIFFERENTIAL TEMPERATURE

SPEED 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	TOTAL
EU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.23	.00	.00	.00	.00	.00	.27	.27							
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	.00	.09	.00	.05	.00	.00	.00	.00	.00	.14				.14				
2 SS	.00	.00	.00	.00	.00	.00	.00	.09	.27	.00	.00	.00	.00	.00	.00	.00	.37					.37			
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	
																									.78
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	.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	
																									.00
TOT	5.30	4.20	4.16	4.52	5.21	4.98	3.20	5.39	8.81	8.58	7.12	3.24	10.68	10.37	5.48	8.77	100.00	5.75	2.24	1.87	37.03	38.49	10.78	3.84	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.37	.14	.68	.14	.05	.55	.18	.09	.09	.59	.55	.05	.32	.96	.46	.55	5.75	Extremely Unstable
.09	.18	.05	.00	.18	.14	.14	.09	.09	.18	.23	.05	.05	.37	.18	.23	2.24	Moderately Unstable
.14	.09	.05	.00	.09	.05	.05	.05	.09	.27	.14	.00	.14	.37	.18	.18	1.87	Slightly Unstable
1.78	1.64	1.05	2.47	3.38	1.37	.46	1.28	2.24	1.87	2.01	1.23	6.03	5.66	1.92	2.65	37.03	Neutral
2.15	1.64	2.19	1.83	1.14	1.05	.96	3.15	4.84	3.52	2.33	1.42	3.70	2.42	2.05	4.11	38.49	Slightly Stable
.46	.50	.09	.09	.14	1.05	1.10	.68	1.14	1.74	1.42	.46	.37	.46	.32	.78	10.78	Moderately Stable
.32	.00	.05	.00	.23	.78	.32	.05	.32	.41	.46	.05	.09	.14	.37	.27	3.84	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	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	C A L M
1.10	.82	.59	.55	.68	.82	1.10	.96	1.05	.59	.55	.32	.64	.87	1.32	1.10	13.06	1.0 - 3.5 mph
2.79	1.92	2.05	2.69	2.88	3.20	1.42	2.01	2.37	3.06	2.47	.96	3.74	4.11	2.60	4.98	43.24	3.6 - 7.5 mph
1.42	1.37	1.37	1.19	1.51	.87	.68	1.64	2.97	3.38	2.88	1.46	5.66	4.70	1.32	2.47	34.89	7.6 - 12.5 mph
.00	.09	.14	.09	.09	.09	.00	.68	2.01	1.55	.96	.50	.64	.68	.23	.23	7.99	12.6 - 18.5 mph
.00	.00	.00	.00	.00	.00	.00	.09	.41	.00	.27	.00	.00	.00	.00	.00	.78	18.6 - 24.5 mph
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	> 24.5 mph

ComEd DRESDEN STATION
300 ft. WIND SPEED and WIND DIRECTION

October-December 1997
300-35 ft. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2160
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	TOTAL
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	
																									.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	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.09			.09					
- N	.09	.00	.09	.00	.00	.00	.09	.00	.09	.05	.00	.00	.05	.09	.05	.14	.74				.74				
3 SS	.00	.00	.00	.09	.09	.00	.05	.00	.05	.05	.00	.09	.00	.00	.05	.05	.51					.51			
MS	.00	.00	.00	.09	.05	.00	.00	.28	.00	.05	.05	.00	.05	.00	.00	.00	.56						.56		
ES	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05							.05	
																									1.94
EU	.00	.05	.09	.05	.05	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	.32							
MU	.05	.05	.05	.05	.14	.00	.09	.00	.00	.00	.00	.00	.00	.05	.05	.00	.51		.51						
4 SU	.05	.00	.00	.00	.05	.09	.09	.14	.05	.05	.00	.14	.05	.14	.05	.05	.93			.93					
- N	.19	.14	.09	.60	.42	.05	.05	.28	.28	.19	.46	.19	.37	.28	.79	.23	4.58				4.58				
7 SS	.09	.28	.09	.28	.28	.28	.05	.09	.23	.09	.23	.14	.14	.05	.05	.14	2.50					2.50			
MS	.19	.09	.09	.09	.00	.09	.23	.23	.05	.19	.05	.09	.05	.00	.00	.09	1.53						1.53		
ES	.00	.00	.00	.05	.05	.05	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.19							.19	
																									10.56
EU	.00	.05	.05	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.09	.23	.23							
MU	.09	.05	.05	.00	.00	.00	.09	.00	.00	.14	.05	.00	.05	.23	.09	.05	.88		.88						
8 SU	.09	.05	.00	.00	.09	.00	.00	.00	.05	.14	.14	.05	.05	.42	.00	.09	1.16			1.16					
- N	.74	.56	1.02	2.08	1.85	.69	.51	.60	.42	.51	.93	.42	1.76	1.34	1.06	1.30	15.79				15.79				
1 SS	.69	.42	.42	.23	.46	.23	.37	.09	.42	.32	.32	.32	.51	.60	.74	.32	6.48					6.48			
2 MS	.09	.05	.05	.05	.09	.05	.28	.09	.42	.28	.28	.32	.46	.28	.19	.14	3.10						3.10		
ES	.00	.00	.05	.00	.00	.00	.00	.09	.09	.05	.09	.00	.23	.00	.05	.05	.69							.69	
																									28.33
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.14	.05	.23	.23							
1 MU	.00	.00	.28	.00	.00	.00	.09	.00	.00	.28	.05	.05	.05	.00	.05	.09	.93		.93						
3 SU	.14	.00	.05	.00	.05	.09	.00	.05	.05	.37	.14	.05	.09	.37	.09	.19	1.71			1.71					
- N	1.48	.97	.83	.93	1.06	.28	.14	.51	1.39	1.06	1.62	1.44	4.44	2.73	1.25	1.39	21.53				21.53				
1 SS	1.34	1.02	.23	.00	.14	.23	.23	1.34	1.25	1.99	1.16	.60	1.30	.79	.32	.69	12.64					12.64			
8 MS	.32	.32	.14	.00	.00	.00	.09	.46	.09	.23	1.39	.51	.05	.19	.14	.19	4.12						4.12		
ES	.00	.09	.09	.00	.00	.00	.00	.28	.05	.14	.05	.00	.00	.00	.05	.00	.74							.74	
																									41.90

ComEd DRESDEN STATION
300 ft. WIND SPEED and WIND DIRECTION

October-December 1997
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	TOTAL
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	.09	.09	.00	.00	.14	.05	.00	.37		.37						
9 SU	.00	.00	.00	.00	.00	.05	.00	.00	.14	.09	.00	.00	.00	.00	.00	.00	.28			.28					
- N	.32	1.02	.46	.09	.19	.05	.00	.37	1.16	.56	.42	.28	1.25	1.02	.42	.69	8.29				8.29				
2 SS	.00	.05	.00	.00	.00	.00	.19	.56	1.16	1.25	.83	.05	.14	.14	.14	.37	4.86					4.86			
4 MS	.14	.00	.00	.00	.00	.28	.00	.00	.05	.28	.28	.09	.00	.05	.00	.05	1.20						1.20		
ES	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05							.05	
																									15.05
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05	.05							
G MU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05	.00	.00	.05	.00	.00	.14		.14						
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00	.05	.00	.00	.23			.23					
N	.00	.09	.14	.00	.00	.00	.00	.23	.42	.14	.09	.05	.05	.09	.00	.14	1.44				1.44				
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.23	.09	.05	.00	.00	.00	.00	.00	.37					.37			
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	
																									2.22
TOT	6.16	5.32	4.35	4.68	5.05	2.64	2.69	5.74	8.15	8.70	9.03	4.95	11.11	9.07	5.79	6.57	100.00	.83	2.82	4.40	52.36	27.36	10.51	1.71	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.00	.09	.14	.05	.05	.09	.05	.00	.00	.05	.05	.00	.00	.00	.14	.14	.83	Extremely Unstable
.14	.09	.37	.05	.14	.00	.28	.00	.05	.51	.23	.05	.09	.46	.23	.14	2.82	Moderately Unstable
.32	.05	.05	.00	.19	.23	.09	.19	.28	.65	.46	.28	.19	.97	.14	.32	4.40	Slightly Unstable
2.82	2.78	2.64	3.70	3.52	1.06	.79	1.99	3.75	2.50	3.52	2.36	7.92	5.56	3.56	3.89	52.36	Neutral
2.13	1.76	.74	.60	.97	.74	.88	2.08	3.33	3.80	2.59	1.20	2.08	1.57	1.30	1.57	27.36	Slightly Stable
.74	.46	.28	.23	.14	.42	.60	1.06	.60	1.02	2.04	1.02	.60	.51	.32	.46	10.51	Moderately Stable
.00	.09	.14	.05	.05	.09	.00	.42	.14	.19	.14	.05	.23	.00	.09	.05	1.71	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
.14	.00	.09	.19	.14	.00	.14	.32	.14	.14	.05	.14	.09	.09	.09	.19	1.94	1.0 - 3.5 mph
.56	.60	.42	1.11	.97	.65	.51	.74	.60	.51	.74	.60	.60	.51	.93	.51	10.56	3.6 - 7.5 mph
1.71	1.16	1.62	2.36	2.50	.97	1.30	.88	1.39	1.44	1.81	1.11	3.06	2.87	2.13	2.04	28.33	7.6 - 12.5 mph
3.29	2.41	1.62	.93	1.25	.60	.56	2.64	2.82	4.12	4.40	2.64	5.93	4.07	2.04	2.59	41.90	12.6 - 18.5 mph
.46	1.06	.46	.09	.19	.42	.19	.93	2.50	2.27	1.62	.42	1.39	1.34	.60	1.11	15.05	18.6 - 24.5 mph
.00	.09	.14	.00	.00	.00	.00	.23	.69	.23	.42	.05	.05	.19	.00	.14	2.22	> 24.5 mph