

**DNPS 2009 Annual Radioactive Effluent  
Release Report**

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
DOCKET NUMBERS: 50-010/50-237/50-249

EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT, SUPPLEMENTAL INFORMATION

Facility: Dresden Nuclear Power Station Units 1,2,3

Licensee: Exelon Nuclear

1. Regulatory Limits

a. Fission and activation gases:

Dose Rate (site)

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

Gamma Air Dose (each unit)

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

Beta Air Dose (each unit)

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

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

Dose Rate (site)

- 1) Less than 1500 mrem/year.

Dose (each unit)

- 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. Liquid effluents (each unit):

- 1) Less than or equal to 1.5 mrem to the whole body during any calendar quarter.
- 2) Less than or equal to 5 mrem to any organ during any calendar quarter.
- 3) Less than or equal to 3 mrem to the whole body during any calendar year.
- 4) Less than or equal to 10 mrem to any organ during any calendar year.

e. 40CFR190 and 10CFR72 (all uranium fuel cycle operations in the region):

- 1) Less than or equal to 25 mrem annual whole body dose.
- 2) Less than or equal to 75 mrem annual thyroid dose.
- 3) Less than or equal to 25 mrem annual dose to any other critical organ.

2. Maximum Permissible Concentrations

Dose rates, rather than effluent concentrations, are used to calculate permissible release rates for gaseous effluents. The maximum permissible dose rates for gaseous releases are defined in Dresden Offsite Dose Calculation Manual (ODCM) Radiological Effluent Control (REC) 12.4.1.

Liquid effluent concentrations are limited per ODCM REC 12.3.1 to 10 times the concentration specified in 10CFR20 Appendix B, Table 2, Column 2 for radionuclides other than dissolved or entrained noble gases and 2.00E-04  $\mu\text{Ci/ml}$  total activity for all dissolved or entrained noble gases.

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3. Average Energy

The ODCM limits dose rates at or beyond the site boundary due to the release of noble gases to less than or equal to 500 mrem per year to the total body and less than or equal to 3,000 mrem per year to the skin, and average energy is not used to determine dose to the public. Compliance with these limits is demonstrated based on dose calculations using measured isotopic concentrations of effluent streams and not based on gross count rate measuring systems. Therefore, the average beta and gamma energies ( $\bar{E}$ ) for gaseous effluents as described in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," are not applicable.

4. Measurement and Approximations of Total Radioactivity

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

The 1 Chimney, 2/3 Chimney, 2/3 Reactor Building Vent, and Chemical Cleaning Building effluents are continuously sampled for iodines and particulates. These samples are changed weekly and analyzed by gamma spectroscopy. The particulate filters are composited and sent to a vendor for gross alpha, Sr-89, Sr-90, and Fe-55 analysis. Noble gas grab samples of the 2/3 Chimney and 2/3 Reactor Building Vent are obtained weekly and analyzed by gamma spectroscopy. Contributing streams of the 2/3 Chimney and 2/3 Reactor Building Vent are also sampled and analyzed by gamma spectroscopy. Tritium samples of the 2/3 Chimney and 2/3 Reactor Building Vent are obtained monthly and analyzed by liquid scintillation. The 1 Chimney was also sampled and analyzed for tritium and noble gases monthly until August 18, 2009, when these requirements were removed from the ODCM.

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

- d. Liquid Effluents:

The river discharge tank is analyzed for gamma-emitting nuclides by gamma spectroscopy and for tritium by liquid scintillation prior to discharge. A representative portion of this sample is saved and composited with other discharges that occur during the calendar month. The composite is sent to a vendor for analyses of gross alpha, Sr-89, Sr-90, and Fe-55. The tank volumes and activities are used to calculate the diluted activity released at the discharge point from batch discharges.

Containment Cooling Service Water (CCSW) is sampled from the Low Pressure Coolant Injection (LPCI) heat exchangers monthly and analyzed for gamma-emitting nuclides by gamma spectroscopy. These samples are composited quarterly and analyzed for tritium, gross alpha, Sr-89, Sr-90, and Fe-55. Batch release volume is based on LPCI heat exchanger shell side volume.

- e. Estimated Total Errors

The estimated total errors were calculated as the square root of the sum of the squares of significant errors present in the sampling and analysis process.

- f. 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.

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g. Estimation of Data/Corrections:

In May 2008, the 2/3 Chimney system flow rate meter was found to be indicating lower than actual flow rate due to plugging of the sensor probe. Review of historical 2/3 Chimney flow data indicates this condition began in April 2004. Per the ODCM, if 2/3 Chimney actual system flow rate is not available, the design flow rate of  $1.25E+10$  cc/min can be used. This flow rate is conservative because it is higher than the actual value. This flow rate was applied to 2/3 Chimney noble gas, particulate, iodine, and tritium measurements until April 9, 2009 when the probe was cleaned and returned to service. Units 2 and 3 gland seal and offgas system effluent activity release calculations were not affected because they do not use the 2/3 Chimney flow rate measurement.

On February 15, 2009 the 1 Chimney backup particulate and iodine sampler was found non-functional due to a blown fuse on the sample pump. The backup sampler was in service because the System Particulate, Iodine, and Noble Gas (SPING) monitor was non-functional. For effluent calculations, the sampler was assumed to have been non-functional from the last time it was known to be running on the previous day, which is conservative. A correction factor of 5890/4425 (number of minutes in the sampling period / number of minutes the sampler was known to be running) was applied to the particulate and iodine concentrations.

5. Batch Releases (does not include Abnormal / Unmonitored Releases, described below)

a. Liquid - Radwaste Liquid Effluents

1. Number of batch releases: 19
2. Total time period for batch releases:  $8.56E+03$  minutes
3. Maximum time period for a batch release:  $1.39E+03$  minutes
4. Average time period for a batch release:  $4.50E+02$  minutes
5. Minimum time period for a batch release:  $3.40E+02$  minutes
6. Average stream flow during periods of release of effluent into a flowing stream:  $1.24E+06$  lpm

b. Liquid - Containment Cooling Service Water (LPCI)

1. Number of batch releases: 206
2. Total time period for batch releases:  $2.55E+02$  minutes
3. Maximum time period for a batch release:  $1.24E+00$  minutes
4. Average time period for a batch release:  $1.24E+00$  minutes
5. Minimum time period for a batch release:  $1.24E+00$  minutes
6. Average stream flow during periods of release of effluent into a flowing stream:  $1.24E+06$  lpm

c. Gaseous - None

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6. Abnormal Releases\*

a. Liquid

1. Number of releases: 1
2. Total activity released: 3.13E+00 Ci

b. Gaseous

1. Number of releases: 2
2. Total activity released: 4.57E-02 Ci

a.1 On June 6, 2009, samples drawn from site storm sewers contained measurable quantities of tritium. Investigation showed that the 1A Condensate Storage Tank (CST) fill standpipe was ruptured which allowed contaminated water to enter the underground fill piping. This fill piping developed a 0.20" through-wall corrosion pit, which allowed the contaminated liquid to leak to the station groundwater. Storm sewer tritium monitoring data indicates the leak started no sooner than May 4, 2009. Leakage was stopped by June 19, 2009 when a flange was installed on the standpipe inside the 1A CST and the pipe was drained for repairs. Analysis of the 1A CST contents and estimated difficult-to-measure nuclide concentrations (based on radwaste scaling factors) were used to determine the concentration and composition of nuclides released. Leak rate, based on the size of the hole (0.20") and the height of water in the tank above the leak, was estimated to be 4.02 gallons per minute. For this event, an estimated 3.13E+00 Ci tritium, 9.31E-05 Ci Mn-54, 2.85E-04 Ci Fe-55, and 2.10E-04 Co-60 was released for a total of 3.13E+00 Ci.

b.1 The access door on a 2/3 Chimney duct was found ajar on August 14, 2009. Investigation concluded the door was ajar for a maximum of 129 days and the maximum flow was 2000 scfm, and these maximum values were used for calculating the sample volume. Measurements of activity released from the 2/3 Chimney for the potential duration of the event were used to estimate the concentration of activity released. For this event, an estimated 3.25E-02 Ci tritium, 3.00E-07 Ci Mn-54, 5.17E-07 Ci Co-60, 2.30E-08 Ci Ag-110m, 2.23E-06 Ci I-131, 9.51E-06 Ci I-133, 1.18E-02 Ci Xe-135, and 1.98E-06 Ci Ba-140 for a total activity of 4.43E-02 Ci, which was released to the environment as a ground-level gaseous release.

b.2 An unplanned actuation of the Unit 3 Isolation Condenser occurred at 1734 on October 3, 2009, due to a reactor scram and Group I isolation. In the past, activity was detected on the shell side of the condenser / heat exchanger, which vents directly to the atmosphere. As a result, actuation of this system prompts sampling and isotopic analysis of the shell side contents and the downspouts from roofs under the exhaust. The highest concentrations of activity detected immediately before and after the actuation were used for release calculations. Only tritium and Co-60 were detected. Volume of the release was based on makeup pump run times and changes in shell-side level. For this event, an estimated 1.34E-03 Ci tritium and 1.59E-05 Ci Co-60 were released to the environment as a ground-level gaseous release.

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

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7. Unmonitored Releases\*

a. Liquid

1. Number of releases: 1
2. Total activity released: 3.18E+00 Ci

b. Gaseous

1. Number of releases: 4
2. Total activity released: 1.65E-03 Ci

- a.1 Water in on-site storm sewers is routinely sampled and analyzed for tritium content. The highest storm drain concentrations measured during each calendar month of 2009 was used to calculate the released activity for each month. The total activity released is based on an estimated typical discharge flow of 10 gallons per minute. Tritium was detected in the storm sewers only during the months of June through September (primarily due to the Abnormal Release described in section 6.a.1, above). An estimated 3.18E+00 Ci of tritium was released to the environment during 2009.
- b.1 The Unit 1 Main Turbine Floor is used as an area to work on contaminated equipment. The ventilation system is no longer operational and the floor is at ambient pressure with the outside environment. With radiological work activities being performed on the Unit 1 Main Turbine Floor, the potential exists for airborne activity to be released to the environment through various points. Based on the work normally performed in this area, an estimated 3.60E-05 Ci of Cs-137 was released from this area during 2009.
- b.2 The Chemistry Laboratory Ventilation System exhausts directly into the environment and is not monitored. Based on an evaluation of activities performed in the area, the estimated activity released to the environment from the laboratory in 2009 is 8.32E-05 Ci of noble gases and 2.32E-06 Ci of iodines and particulates.
- b.3 Past radiological surveys have identified low-level contamination in the East Turbine Building Ventilation ductwork. This system vents directly to the environment and is not monitored. Based on the highest activities detected during a survey of the system and the estimated area of the system surface, an estimated 1.36E-06 Ci Co-60 was released to the environment from this system during 2009.
- b.4 The access door on a 2/3 Chimney duct was found ajar on August 14, 2009 as described in 6.2.b, above. The door was closed on the same day, but a small amount of leakage (<100 scfm) continues. Released activity was determined using the duration of the leakage (140 days), 100 scfm, and measurements of activity released from the 2/3 Chimney. An estimated 1.02E-03 Ci tritium, 1.70E-08 Ci Mn-54, 3.35E-08 Ci Co-60, 7.00E-09 Ci Zn-65, 2.06E-08 Ci Sr-89, 1.12E-07 Ci I-131, 3.75E-07 Ci I-133, 5.02E-04 Ci Xe-135, and 8.70E-08 Ci Ba-140 for a total activity of 1.53E-03 Ci was released to the environment during the remainder of 2009.

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

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8. Summary of Offsite Dose Calculation Manual (ODCM) Changes by Dresden Nuclear Power Station (DNPS) in 2009

Revision 8 of the ODCM was issued on May 29, 2009 and made the following changes:

- Implemented Technical Specification amendments 43 (Unit 1), 230 (Unit 2), and 223 (Unit 3) that clarify dose projection requirements.
- Implemented Technical Specification amendments 163 (Unit 2) and 158 (Unit 3) that changes the offgas radiation monitor high alarm setpoints to 1.5 times normal full-power value.
- Changed OPERABILITY / OPERABLE to FUNCTIONALITY / FUNCTIONAL to meet the intent of NRC Regulatory Issue Summary (RIS) 2005-20, revision 1, to apply OPERABILITY / OPERABLE only to safety-related structures, systems, or components.
- Reduced the maximum allowable Liquid Radwaste Effluent Monitor alarm setpoint to ensure the high activity alarm is below the high fail setpoint.
- Clarified Land Use Census requirements to require enumeration and feed sources of milk animals instead of livestock.

Revision 9 of the ODCM was issued on August 18, 2009. The revision removes the Unit 1 Chimney SPING and associated in-line monitoring requirements and removes Unit 1 Chimney noble gas and tritium sampling requirements. All fuel is removed from Unit 1 and the Unit 1 Spent Fuel Pool is drained, which removed the source of these nuclides from Unit 1. Particulate and iodine sampling requirements were changed to be required only during operation of the Unit 1 Gaseous Monitoring System (the only potential source of effluent flow via the Unit 1 Chimney).

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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009  
GASEOUS EFFLUENTS – SUMMATION OF ALL RELEASES

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Units	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Est. Total Error, %
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A. Fission & activation gases

1. Total release	Ci	1.97E+01	1.42E+01	1.28E+01	1.46E+01	1.31E+01
2. Average release rate for period	μCi/sec	2.54E+00	1.80E+00	1.61E+00	1.84E+00	
3. Percent of Technical specification limit	%	*	*	*	*	

B. Iodines

1. Total iodine-131	Ci	2.40E-04	2.34E-04	2.57E-04	2.20E-04	2.60E+01
2. Average release rate for period (I-131)	μCi/sec	3.09E-05	2.97E-05	3.24E-05	2.76E-05	
3. Percent of technical specification limit	%	*	*	*	*	

C. Particulates

1. Particulates with half-lives > 8 days	Ci	3.65E-04	4.80E-04	2.45E-04	6.48E-04	2.94E+01
2. Average release rate for period	μCi/sec	4.70E-05	6.10E-05	3.08E-05	8.15E-05	
3. Percent of technical specification limit	%	*	*	*	*	
4. Gross alpha radioactivity	Ci	<LLD	<LLD	<LLD	<LLD	

D. Tritium

1. Total release	Ci	1.97E+00	4.60E+00	4.56E+00	2.34E+00	7.56E+00
2. Average release rate for period	μCi/sec	2.54E-01	5.86E-01	5.74E-01	2.94E-01	
3. Percent of technical specification Limit	%	*	*	*	*	

\* Applicable limits have been removed from the Technical Specifications. The comparison to ODCM limits is contained in the Radiological Impact on Man section of this report. Total airborne release data are provided which include fission and activation gases, iodines, particulates, and tritium.



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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009  
 GASEOUS EFFLUENTS – SUMMATION OF ALL RELEASES

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TABLE OF LOWER LIMITS OF DETECTABILITY  
 FOR GASEOUS EFFLUENTS

1.	FISSION / ACTIVATION GASES	$\mu\text{Ci/cc}$
	Kr-87	1.00E-04
	Kr-88	1.00E-04
	Xe-133	1.00E-04
	Xe-133m	1.00E-04
	Xe-135	1.00E-04
	Xe-138	1.00E-04
2.	IODINES	$\mu\text{Ci/cc}$
	I-131	1.00E-12
	I-133	1.00E-10
3.	PARTICULATES	$\mu\text{Ci/cc}$
	Sr-89	1.00E-11
	Sr-90	1.00E-11
	Mn-54	1.00E-11
	Co-58	1.00E-11
	Fe-59	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	$\mu\text{Ci/cc}$
	H-3	1.00E-06
	Gross Alpha	1.00E-11

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

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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNIT 1 MAIN CHIMNEY

GASEOUS EFFLUENTS

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

CONTINUOUS MODE

Nuclides Released	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	TOTAL
<b>1. Fission and Activation Gases</b>						
Ar-41	Ci	<LLD	<LLD	<LLD		<LLD
Kr-85	Ci	<LLD	<LLD	<LLD		<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD		<LLD
Kr-87	Ci	<LLD	<LLD	<LLD		<LLD
Kr-88	Ci	<LLD	<LLD	<LLD		<LLD
Xe-133	Ci	<LLD	<LLD	<LLD		<LLD
Xe-133m	Ci	<LLD	<LLD	<LLD		<LLD
Xe-135	Ci	<LLD	<LLD	<LLD		<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD		<LLD
Xe-138	Ci	<LLD	<LLD	<LLD		<LLD
Total for period	Ci	<LLD	<LLD	<LLD	None <sup>(1)</sup>	<LLD
<b>2. Iodines</b>						
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>3. Particulates</b>						
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	5.80E-07	<LLD	<LLD	<LLD	5.80E-07
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	1.12E-06	2.84E-07	<LLD	1.32E-06	2.72E-06
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	5.07E-07	7.35E-08	<LLD	<LLD	5.81E-07
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	2.20E-06	3.58E-07	<LLD	1.32E-06	3.88E-06
<b>4. Tritium</b>						
Total for period	Ci	2.68E-05	<LLD	<LLD	None <sup>(1)</sup>	2.68E-05

<sup>(1)</sup> Unit 1 Chimney noble gas and tritium monitoring requirements were removed from the ODCM in August 2009.

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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNIT 1 MAIN CHIMNEY

GASEOUS EFFLUENTS

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

BATCH MODE

Nuclides Released	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	TOTAL
<b>1. Fission and Activation Gases</b>						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-135m	Ci					
Xe-138	Ci					
Total for period	Ci	None	None	None	None	None
<b>2. Iodines</b>						
I-131	Ci					
I-133	Ci					
I-135	Ci					
Total for period	Ci	None	None	None	None	None
<b>3. Particulates</b>						
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Total for period	Ci	None	None	None	None	None
<b>4. Tritium</b>						
Total for period	Ci	None	None	None	None	None

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UNITS 2/3 REACTOR BUILDING VENT

GASEOUS EFFLUENTS

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

CONTINUOUS MODE

Nuclides Released	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	TOTAL
<b>1. Fission and Activation Gases</b>						
Ar-41	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>2. Iodines</b>						
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>3. Particulates</b>						
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cr-51	Ci	2.26E-06	8.25E-06	<LLD	1.48E-05	2.53E-05
Mn-54	Ci	1.22E-05	1.48E-05	5.04E-07	5.23E-05	7.98E-05
Co-58	Ci	<LLD	3.74E-06	<LLD	4.36E-06	8.10E-06
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	9.00E-06	2.66E-05	3.06E-06	8.04E-05	1.19E-04
Zn-65	Ci	<LLD	<LLD	<LLD	4.89E-05	4.89E-05
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	2.03E-06	2.03E-06
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	2.35E-05	5.34E-05	3.56E-06	2.03E-04	2.83E-04
<b>4. Tritium</b>						
Total for period	Ci	1.27E+00	1.17E+00	9.97E-01	9.51E-01	4.38E+00

DRESDEN NUCLEAR POWER STATION  
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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNITS 2/3 REACTOR BUILDING VENT

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

BATCH MODE

Nuclides Released	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	TOTAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-135m	Ci					
Xe-138	Ci					
Total for period	Ci	None	None	None	None	None
2. Iodines						
I-131	Ci					
I-133	Ci					
I-135	Ci					
Total for period	Ci	None	None	None	None	None
3. 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					
Zn-65	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Total for period	Ci	None	None	None	None	None
4. Tritium						
Total for period	Ci	None	None	None	None	None

DRESDEN NUCLEAR POWER STATION  
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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNITS 2/3 MAIN CHIMNEY

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

CONTINUOUS MODE

Nuclides Released	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	TOTAL
<b>1. Fission and Activation Gases</b>						
Ar-41	Ci	1.26E+00	1.19E+00	9.63E-01	1.73E+00	5.14E+00
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	3.75E-01	4.77E-01	4.45E-01	8.21E-01	2.12E+00
Kr-87	Ci	4.28E-01	3.01E-01	2.84E-01	2.62E-01	1.27E+00
Kr-88	Ci	5.82E-01	3.15E-01	3.02E-01	5.14E-01	1.71E+00
Xe-133	Ci	7.51E-01	1.00E+00	8.58E-01	9.73E-01	3.58E+00
Xe-133m	Ci	1.53E-02	<LLD	<LLD	<LLD	1.53E-02
Xe-135	Ci	4.31E+00	2.01E+00	1.31E+00	1.08E+00	8.71E+00
Xe-135m	Ci	5.22E+00	1.89E+00	1.70E+00	1.78E+00	1.06E+01
Xe-138	Ci	6.79E+00	6.98E+00	6.92E+00	7.44E+00	2.81E+01
Total for period	Ci	1.97E+01	1.42E+01	1.28E+01	1.46E+01	6.13E+01
<b>2. Iodines</b>						
I-131	Ci	2.40E-04	2.34E-04	2.55E-04	2.20E-04	9.48E-04
I-133	Ci	8.58E-04	8.87E-04	1.15E-03	6.30E-04	3.53E-03
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	1.10E-03	1.12E-03	1.41E-03	8.50E-04	4.48E-03
<b>3. Particulates</b>						
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	8.17E-05	6.66E-05	3.13E-05	5.02E-05	2.30E-04
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	1.50E-05	4.82E-05	7.84E-06	4.81E-05	1.19E-04
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	5.52E-05	6.20E-05	3.99E-05	8.64E-05	2.43E-04
Zn-65	Ci	<LLD	<LLD	1.25E-05	1.05E-05	2.31E-05
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	3.70E-06	<LLD	<LLD	3.70E-06
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	1.88E-04	2.45E-04	1.47E-04	1.92E-04	7.72E-04
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	3.39E-04	4.26E-04	2.38E-04	3.87E-04	1.39E-03
<b>4. Tritium</b>						
Total for period	Ci	7.02E-01	3.44E+00	3.53E+00	1.38E+00	9.05E+00

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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNITS 2/3 MAIN CHIMNEY

GASEOUS EFFLUENTS

DOCKET NUMBERS: 50-237/50-249

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

BATCH MODE

Nuclides Released	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	TOTAL
<b>1. Fission and Activation Gases</b>						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-135m	Ci					
Xe-138	Ci					
Total for period	Ci	None	None	None	None	None
<b>2. Iodines</b>						
I-131	Ci					
I-133	Ci					
I-135	Ci					
Total for period	Ci	None	None	None	None	None
<b>3. Particulates</b>						
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Total for period	Ci	None	None	None	None	None
<b>4. Tritium</b>						
Total for period	Ci	None	None	None	None	None

DRESDEN NUCLEAR POWER STATION  
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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

CHEMICAL CLEANING BUILDING

GASEOUS EFFLUENTS

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

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

CONTINUOUS MODE

Nuclides Released	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	TOTAL
<b>1. Fission and Activation Gases</b>						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-135m	Ci					
Xe-138	Ci					
Total for period	Ci	None	None	None	None	None
<b>2. Iodines</b>						
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
<b>3. Particulates</b>						
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	7.03E-07	7.03E-07
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	<LLD	<LLD	<LLD	7.03E-07	7.03E-07
<b>4. Tritium</b>						
Total for period	Ci	None	None	None	None	None



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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

CHEMICAL CLEANING BUILDING

GASEOUS EFFLUENTS

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

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GROUND LEVEL RELEASES  
SEMI-ELEVATED RELEASES  
ELEVATED RELEASES

BATCH MODE

Nuclides Released	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	TOTAL
<b>1. Fission and Activation Gases</b>						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-135m	Ci					
Xe-138	Ci					
Total for period	Ci	None	None	None	None	None
<b>2. Iodines</b>						
I-131	Ci					
I-133	Ci					
I-135	Ci					
Total for period	Ci	None	None	None	None	None
<b>3. Particulates</b>						
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Total for period	Ci	None	None	None	None	None
<b>4. Tritium</b>						
Total for period	Ci	None	None	None	None	None

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
January through December 2009

EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009  
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

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

Units	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Est. Total Error, %
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A. Fission and activation products

1. Total release (not including H-3, gases, alpha)	Ci	<LLD	3.82E-03	3.00E-04	1.48E-03	1.95E+01
2. Average diluted concentration during period	μCi/ml	<LLD	3.73E-11	5.99E-13	5.91E-11	
3. Percent of applicable limit	%	*	*	*	*	

B. Tritium

1. Total release	Ci	<LLD	6.84E+00	2.07E+00	4.15E+00	2.37E+00
2. Average diluted concentration during period	μCi/ml	<LLD	6.68E-08	4.13E-09	1.66E-07	
3. Percent of applicable limit	%	*	*	*	*	

C. Dissolved and entrained gases

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.03E+01
2. Average diluted concentration during period	μCi/ml	<LLD	<LLD	<LLD	<LLD	
3. Percent of applicable limit	%	*	*	*	*	

D. Gross alpha activity

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.00E+01
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E. Volume of waste released (prior to dilution)	Liters	6.14E+06	7.43E+06	6.97E+06	8.84E+06	1.00E+00
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F. Volume of dilution water used during period	Liters	2.45E+10	1.02E+11	5.01E+11	2.51E+10	5.00E+00
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\* Applicable limits have been removed from the Technical Specifications. The comparison to ODCM limits is contained in the Radiological Impact on Man section of this report. Total liquid release data are provided which include fission and activation products, tritium, and dissolved and entrained gases.

DRESDEN NUCLEAR POWER STATION  
 2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
 January through December 2009

EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009  
 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

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
	Co-58	5.00E-07
	Fe-59	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-06
4.	OTHER	μCi/ml
	H-3	1.00E-05
	Gross Alpha	1.00E-07

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

DRESDEN NUCLEAR POWER STATION  
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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNITS 2/3 RADWASTE LIQUID EFFLUENTS

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

BATCH MODE

	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Total
Fe-55	Ci		2.81E-03	<LLD	<LLD	2.81E-03
Sr-89	Ci		<LLD	<LLD	<LLD	<LLD
Sr-90	Ci		<LLD	<LLD	<LLD	<LLD
I-131	Ci		<LLD	<LLD	<LLD	<LLD
I-132	Ci		<LLD	<LLD	<LLD	<LLD
I-133	Ci		<LLD	<LLD	<LLD	<LLD
I-134	Ci		<LLD	<LLD	<LLD	<LLD
I-135	Ci		<LLD	<LLD	<LLD	<LLD
Cr-51	Ci		<LLD	<LLD	<LLD	<LLD
Mn-54	Ci		4.84E-05	1.01E-05	4.30E-04	4.89E-04
Co-58	Ci		<LLD	<LLD	<LLD	<LLD
Fe-59	Ci		<LLD	<LLD	<LLD	<LLD
Co-60	Ci		3.48E-04	2.78E-04	3.45E-04	9.71E-04
Zn-65	Ci		<LLD	<LLD	<LLD	<LLD
As-76	Ci		<LLD	<LLD	<LLD	<LLD
Zr-95	Ci		<LLD	<LLD	<LLD	<LLD
Sr-91	Ci		<LLD	<LLD	<LLD	<LLD
Mo-99	Ci		<LLD	<LLD	<LLD	<LLD
Tc-99m	Ci		<LLD	<LLD	<LLD	<LLD
Ru-103	Ci		<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci		<LLD	<LLD	<LLD	<LLD
Sb-125	Ci		<LLD	<LLD	<LLD	<LLD
Cs-134	Ci		<LLD	<LLD	<LLD	<LLD
Cs-136	Ci		<LLD	<LLD	<LLD	<LLD
Cs-137	Ci		2.29E-05	1.21E-05	2.59E-05	6.09E-05
Ba-139	Ci		<LLD	<LLD	<LLD	<LLD
Ba-140	Ci		<LLD	<LLD	<LLD	<LLD
La-140	Ci		<LLD	<LLD	<LLD	<LLD
Ce-141	Ci		<LLD	<LLD	<LLD	<LLD
(above) Total	Ci	None	3.23E-03	3.00E-04	8.02E-04	4.33E-03
H-3	Ci		1.72E+00	8.76E-01	4.15E+00	6.75E+00
Kr-87	Ci		<LLD	<LLD	<LLD	<LLD
Kr-88	Ci		<LLD	<LLD	<LLD	<LLD
Xe-133	Ci		<LLD	<LLD	<LLD	<LLD
Xe-133m	Ci		<LLD	<LLD	<LLD	<LLD
Xe-135	Ci		<LLD	<LLD	<LLD	<LLD
Xe-138	Ci		<LLD	<LLD	<LLD	<LLD

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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNITS 2/3 RADWASTE LIQUID EFFLUENTS

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

CONTINUOUS MODE

Unit		1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Total
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
As-76	Ci					
Zr-95	Ci					
Sr-91	Ci					
Mo-99	Ci					
Tc-99m	Ci					
Ru-103	Ci					
Ag-110m	Ci					
Sb-124	Ci					
Cs-134	Ci					
Cs-136	Ci					
Cs-137	Ci					
Cs-138	Ci					
Ba-140	Ci					
La-140	Ci					
Ce-141	Ci					
(above) Total	Ci	None	None	None	None	None
H-3	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-133m	Ci					
Xe-135	Ci					
Xe-138	Ci					

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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNITS 2/3 CONTAINMENT COOLING SERVICE WATER

DOCKET NUMBERS: 50-237/50-249

		<u>BATCH MODE</u>					
	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Total	
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
I-132	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
I-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Cr-51	Ci	<LLD	<LLD	<LLD	1.03E-04	1.03E-04	
Mn-54	Ci	<LLD	<LLD	<LLD	1.71E-04	1.71E-04	
Co-58	Ci	<LLD	<LLD	<LLD	1.96E-05	1.96E-05	
Fe-59	Ci	<LLD	<LLD	<LLD	2.94E-05	2.94E-05	
Co-60	Ci	<LLD	<LLD	<LLD	1.59E-04	1.59E-04	
Zn-65	Ci	<LLD	<LLD	<LLD	1.98E-04	1.98E-04	
As-76	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Sr-91	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Tc-99m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Ru-103	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Cs-136	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Cs-137	Ci	<LLD	1.99E-06	<LLD	<LLD	1.99E-06	
Ba-139	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
(above) Total	Ci	<LLD	1.99E-06	<LLD	6.80E-04	6.82E-04	
H-3	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	

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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009

UNITS 2/3 CONTAINMENT COOLING SERVICE WATER

DOCKET NUMBERS: 50-237/50-249

CONTINUOUS MODE

	Unit	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Total
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
As-76	Ci					
Zr-95	Ci					
Sr-91	Ci					
Mo-99	Ci					
Tc-99m	Ci					
Ru-103	Ci					
Ag-110m	Ci					
Sb-124	Ci					
Cs-134	Ci					
Cs-136	Ci					
Cs-137	Ci					
Cs-138	Ci					
Ba-140	Ci					
La-140	Ci					
Ce-141	Ci					
(above) Total	Ci	None	None	None	None	None
H-3	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-133	Ci					
Xe-135	Ci					
Xe-138	Ci					

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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not irradiated fuel)

1. Type of Waste	Unit	12-month Period	Est. Total Error; %
a. Spent resins, filter sludges / filters, evaporator bottoms, etc.	m <sup>3</sup>	9.70E+01	2.50E+01
	Ci	4.52E+02	
b. Dry compressible waste, contaminated equipment, etc. (includes some contaminated liquids)	m <sup>3</sup>	1.76E+03	2.50E+01
	Ci	1.68E+01	
c. Irradiated components, control rods, etc.	m <sup>3</sup>	0.00E+00	2.50E+01
	Ci	0.00E+00	
d. Other (describe) - Contaminated Oil, Combined Packages	m <sup>3</sup>	1.68E+01	2.50E+01
	Ci	7.07E-01	

2. Estimate of Major (i.e., ≥1%) Nuclide Composition (by type of waste)

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

	<u>Percent %</u>	<u>Curies</u>
Fe-55	7.78E+01	3.52E+02
Co-60	1.38E+01	6.24E+01
Mn-54	3.87E+00	1.75E+01
Cs-137	2.12E+00	9.57E+00
Zn-65	1.71E+00	7.74E+00

Shipment type: LSA, Type B  
Solidification agent or absorbent: None

b. Dry compressible waste, contaminated equipment, etc.

	<u>Percent %</u>	<u>Curies</u>
Fe-55	5.99E+01	1.01E+01
Co-60	2.05E+01	3.45E+00
Mn-54	9.61E+00	1.61E+00
Zn-65	4.72E+00	7.92E-01
Cs-137	3.60E+00	6.05E-01
Ni-63	1.12E+00	1.89E-01

Shipment type: LSA  
Solidification agent or absorbent: None

c. Irradiated components, control rods, etc. – None.

d. Other - Contaminated Oil, Combined Packages

	<u>Percent %</u>	<u>Curies</u>
Fe-55	3.78E+01	2.67E-01
Co-60	3.63E+01	2.56E-01
Mn-54	1.86E+01	1.31E-01
Cs-137	4.74E+00	3.35E-02
Zn-65	1.12E+00	7.94E-03

Shipment type: Limited Quantity, LSA  
Solidification agent or absorbent: None



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EFFLUENT AND WASTE DISPOSAL SUMMARY ANNUAL REPORT 2009  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

2. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
44	Motor freight (exclusive use only)	Energy Solutions - Bear Creek Road, Oak Ridge, TN
16	Motor freight (exclusive use only)	Energy Solutions - Envirocare, Clive, UT
4	Motor freight (exclusive use only)	Energy Solutions - Gallaher Road, Kingston, TN

B. IRRADIATED FUEL SHIPMENTS (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
None	(NA)	(NA)

C. CHANGES TO THE PROCESS CONTROL PROGRAM (PCP)

No major changes were made to the DNPS radioactive liquid, gaseous, or solid waste treatment systems in 2009.

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RADIOLOGICAL IMPACT ON MAN\*

A. UNIT 1

Docket Number: 50-010

1. Airborne Releases

	Quarterly Limit	Maximum Doses from Airborne Releases				Yearly Limit	Annual Dose
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air (mrad)	5.0 mrad	0.00E+00(e)	0.00E+00(e)	0.00E+00(e)	0.00E+00(e)	10.0 mrad	0.00E+00 (e)
Beta Air (mrad)	10.0 mrad	0.00E+00(e)	0.00E+00(e)	0.00E+00(e)	0.00E+00(e)	20.0 mrad	0.00E+00 (e)
Total Body (mrem)	2.5 mrem	0.00E+00(e)	0.00E+00(e)	0.00E+00(e)	0.00E+00(e)	5.0 mrem	0.00E+00 (e)
Skin (mrem)	7.5 mrem	0.00E+00(e)	0.00E+00(e)	0.00E+00(e)	0.00E+00(e)	15.0 mrem	0.00E+00 (e)
Organ (mrem)	7.5 mrem	1.87E-06(i)	4.40E-07(c)	0.00E+00(e)	7.87E-04(i,c)	15.0 mrem	7.88E-04 (i,c)
Critical Organ		Liver	Liver	None	Liver (i) Bone (c)		Liver (i) Bone (c)

	Quarterly Limit	Percentage of Quarterly Limit (%)				Yearly Limit	Percentage of Annual Limit
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air	5.0 mrad	0.00E+00	0.00E+00	0.00E+00	0.00E+00	10.0 mrad	0.00E+00
Beta Air	10.0 mrad	0.00E+00	0.00E+00	0.00E+00	0.00E+00	20.0 mrad	0.00E+00
Total Body	2.5 mrem	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.0 mrem	0.00E+00
Skin	7.5 mrem	0.00E+00	0.00E+00	0.00E+00	0.00E+00	15.0 mrem	0.00E+00
Organ	7.5 mrem	2.49E-05	5.87E-06	0.00E+00	1.05E-02	15.0 mrem	5.25E-03

2. Liquid Releases

	Quarterly Limit	Maximum Doses from Liquid Releases				Yearly Limit	Annual Dose
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body (mrem)	1.5 mrem	None	None	None	None	3.0 mrem	None
Organ (mrem)	5.0 mrem	None	None	None	None	10.0 mrem	None
Critical Organ		None	None	None	None		None

	Quarterly Limit	Percentage of Quarterly Limit (%)				Yearly Limit	Percentage of Annual Limit
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body	1.5 mrem	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.0 mrem	0.00E+00
Organ	5.0 mrem	0.00E+00	0.00E+00	0.00E+00	0.00E+00	10.0 mrem	0.00E+00

3. Direct Radiation

The maximum calculated direct radiation exposure to a member of the public due to Unit 1 turbine building skyshine was 0.00E+00 mrem during 2009 (Unit 1 is permanently shutdown). Total Deep Dose Equivalent from Unit 1 was 7.72E-04 mrem in 2009.

4. Total Dose Assessment

The maximum calculated Total Effective Dose Equivalent exposure to a member of the public as the result of Unit 1 activities during 2009 is 7.80E-04 mrem. The maximum calculated Committed Effective Dose Equivalent exposure to a member of the public as the result of Unit 1 activities during 2009 is 8.60E-06 mrem.

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

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RADIOLOGICAL IMPACT ON MAN\*

B. UNIT 2

Docket Number: 50-237

1. Airborne Releases

	Quarterly Limit	Maximum Doses from Airborne Releases				Yearly Limit	Annual Dose
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air (mrad)	5.0 mrad	1.22E-04 (e)	5.48E-05 (e)	5.51E-05 (e)	3.31E-05 (e)	10.0 mrad	2.65E-04 (e)
Beta Air (mrad)	10.0 mrad	7.85E-06 (e)	3.51E-06 (e)	3.35E-06 (e)	1.98E-06 (e)	20.0 mrad	1.67E-05 (e)
Total Body (mrem)	2.5 mrem	1.03E-04 (e)	4.13E-05 (e)	4.16E-05 (e)	2.50E-05 (e)	5.0 mrem	2.00E-04 (e)
Skin (mrem)	7.5 mrem	1.01E-04 (e)	4.53E-05 (e)	4.55E-05 (e)	2.73E-05 (e)	15.0 mrem	2.19E-04 (e)
Organ (mrem)	7.5 mrem	7.89E-05 (a)	6.51E-04 (c)	1.50E-03 (c)	1.22E-03 (c)	15.0 mrem	3.44E-03 (c)
Critical Organ		GI_LLI	Thyroid	Thyroid	Thyroid		Thyroid

	Quarterly Limit	Percentage of Quarterly Limit (%)				Yearly Limit	Percentage of Annual Limit
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air	5.0 mrad	2.44E-03	1.10E-03	1.10E-03	6.62E-04	10.0 mrad	2.65E-03
Beta Air	10.0 mrad	7.85E-05	3.51E-05	3.35E-05	1.98E-05	20.0 mrad	8.35E-05
Total Body	2.5 mrem	4.12E-03	1.65E-03	1.66E-03	1.00E-03	5.0 mrem	4.00E-03
Skin	7.5 mrem	1.35E-03	6.04E-04	6.07E-04	3.64E-04	15.0 mrem	1.46E-03
Organ	7.5 mrem	1.05E-03	8.68E-03	2.00E-02	1.63E-02	15.0 mrem	2.29E-02

2. Liquid Releases

	Quarterly Limit	Maximum Doses from Liquid Releases				Yearly Limit	Annual Dose
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body (mrem)	1.5 mrem	0.00E+00(e)	8.73E-06 (a)	4.13E-06 (a)	1.43E-05(a,c)	3.0 mrem	2.72E-05 (a)
Organ (mrem)	5.0 mrem	0.00E+00(e)	1.27E-05 (c)	5.64E-06 (c)	1.99E-05 (c)	10.0 mrem	3.83E-05 (c)
Critical Organ		None	Liver	Liver	Liver		Liver

	Quarterly Limit	Percentage of Quarterly Limit (%)				Yearly Limit	Percentage of Annual Limit
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body	1.5 mrem	0.00E+00	5.82E-04	2.75E-04	9.53E-04	3.0 mrem	9.07E-04
Organ	5.0 mrem	0.00E+00	2.54E-04	1.13E-04	3.98E-04	10.0 mrem	3.83E-04

3. Direct Radiation

The calculated direct radiation exposure to a member of the public due to Unit 2 turbine building skyshine was 3.92E+00 mrem during 2009. Total Deep Dose Equivalent from the operation of Unit 2 was 3.92E+00 mrem in 2009.

4. Total Dose Assessment

The maximum calculated Total Effective Dose Equivalent exposure to a member of the public as the result of Unit 2 operations during 2009 is 3.93E+00 mrem. The maximum calculated Committed Effective Dose Equivalent exposure to a member of the public as the result of Unit 2 operations during 2009 is 1.22E-03 mrem.

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

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C. UNIT 3

DOCKET NUMBER: 50-249

1. Airborne Releases

	Quarterly Limit	Maximum Doses from Airborne Releases				Yearly Limit	Annual Dose
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air (mrad)	5.0 mrad	2.28E-04 (e)	2.32E-04 (e)	2.16E-04 (e)	2.89E-04 (e)	10.0 mrad	9.65E-04 (e)
Beta Air (mrad)	10.0 mrad	1.41E-05 (e)	1.44E-05 (e)	1.51E-05 (e)	1.68E-05 (e)	20.0 mrad	6.01E-05 (e)
Total Body (mrem)	2.5 mrem	1.72E-04 (e)	1.75E-04 (e)	1.63E-04 (e)	2.18E-04 (e)	5.0 mrem	7.28E-04 (e)
Skin (mrem)	7.5 mrem	1.88E-04 (e)	1.92E-04 (e)	1.80E-04 (e)	2.37E-04 (e)	15.0 mrem	7.97E-04 (e)
Organ (mrem)	7.5 mrem	3.37E-04 (a)	3.44E-03 (c)	4.04E-03 (c)	1.43E-03 (c)	15.0 mrem	9.17E-03 (c)
Critical Organ		GI_LLI	Thyroid	Thyroid	Thyroid		Thyroid

	Quarterly Limit	Percentage of Quarterly Limit (%)				Yearly Limit	Percentage of Annual Limit
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Gamma Air	5.0 mrad	4.56E-03	4.64E-03	4.32E-03	5.78E-03	10.0 mrad	9.65E-03
Beta Air	10.0 mrad	1.41E-04	1.44E-04	1.51E-04	1.68E-04	20.0 mrad	3.01E-04
Total Body	2.5 mrem	6.88E-03	7.00E-03	6.52E-03	8.72E-03	5.0 mrem	1.46E-02
Skin	7.5 mrem	2.51E-03	2.56E-03	2.40E-03	3.16E-03	15.0 mrem	5.31E-03
Organ	7.5 mrem	4.49E-03	4.59E-02	5.39E-02	1.91E-02	15.0 mrem	6.11E-02

2. Liquid Releases

	Quarterly Limit	Maximum Doses from Liquid Releases				Yearly Limit	Annual Dose
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body (mrem)	1.5 mrem	0.00E+00(e)	2.66E-05 (c)	4.13E-06 (a)	4.13E-05 (c)	3.0 mrem	7.12E-05 (c)
Organ (mrem)	5.0 mrem	0.00E+00(e)	3.20E-05 (c)	5.64E-06 (c)	5.13E-05 (c)	10.0 mrem	8.89E-05 (c)
Critical Organ		None	Liver	Liver	Liver		Liver

	Quarterly Limit	Percentage of Quarterly Limit (%)				Yearly Limit	Percentage of Annual Limit
		1 <sup>st</sup> QTR	2 <sup>nd</sup> QTR	3 <sup>rd</sup> QTR	4 <sup>th</sup> QTR		
Total Body	1.5 mrem	0.00E+00	1.77E-03	2.75E-04	2.75E-03	3.0 mrem	2.37E-03
Organ	5.0 mrem	0.00E+00	6.40E-04	1.13E-04	1.03E-03	10.0 mrem	8.89E-04

3. Direct Radiation

The maximum calculated direct radiation exposure to a member of the public due to Unit 3 turbine building skyshine was 4.19E+00 mrem during 2009. Total Deep Dose Equivalent from the operation of Unit 3 was 4.19E+00 mrem in 2009.

4. Total Dose Assessment

The maximum calculated Total Effective Dose Equivalent exposure to a member of the public as the result of Unit 3 operations during 2009 is 4.19E+00 mrem. The maximum calculated Committed Effective Dose Equivalent exposure to a member of the public as the result of Unit 3 operations during 2009 is 3.24E-03 mrem.

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

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D. 40CFR190 / 10CFR72 Compliance

The General Electric Hitachi Nuclear Energy Morris Operation (GE-Hitachi Morris Operation) facility is physically located near Dresden Station and, in addition to evolutions performed at Dresden station, is considered in the evaluation of the uranium fuel cycle on members of the public in the general environment for 40CFR190 compliance.

Dresden decommissioning activities (Unit 1) and operations (Units 2 and 3) resulted in a maximum 1.35E-02 mrem organ dose and 8.11E+00 mrem Deep Dose Equivalent. Radiological Environmental Monitoring Program (REMP) direct radiation monitoring at or near the site boundary demonstrates that Deep Dose Equivalent calculations are conservative.

No effluents were released from the Dresden Independent Spent Fuel Storage Installations (ISFSIs) during 2009. REMP direct radiation monitoring at or near the site boundary demonstrates that the ISFSIs do not result in measurable dose to the public.

Per the 2009 GE-Hitachi Morris Operation 10CFR72.44(d)(3) report, maximum dose at their site boundary from direct radiation exposure was 6.58E-01 mrem and maximum organ dose was 1.37E-02 mrem for 2009.

Maximum Deep Dose Equivalent from Dresden and GE-Hitachi Morris Operation activities is 8.77E+00 mrem during 2009, which is 3.51E+01% of the 40CFR190 limit of 2.50E+01 mrem.

Maximum organ dose from Dresden and GE-Hitachi Morris Operation activities is 2.72E-02 mrem during 2009, which is <1.00E+00% of the 40CFR190 limits of 7.50E+01 mrem to the thyroid and 2.50E+00 mrem to any other organ.

E. Equipment Out of Service

In May 2008, the 2/3 Chimney system flow rate meter was found to be indicating lower than actual flow rate due to plugging of the sensor probe. Review of historical 2/3 Chimney flow data indicates this condition affected the entirety of 2008. Restoration of the channel was delayed by issues associated with identifying the cause of the plugging, developing a method to clear the plugging, and appropriate weather conditions that would allow reduction in duct flow to facilitate access to the probe for cleaning. The channel was returned to service on April 7, 2009.

The 1 Chimney SPING was out of service from January 27, 2009 until April 10, 2009. The SPING was removed from service due to improper behavior of the recorder for the low and medium range noble gas channels. Restoration of the monitor was delayed by troubleshooting the initial issue, discovery of additional issues with channels not required by the ODCM, and availability of replacement parts. All contingency sampling requirements were met with the exception of when particulate and iodine sampling was found interrupted on February 15, 2009 described in the next paragraph.

On February 15, 2009 the 1 Chimney backup particulate and iodine sampler was found non-functional due to a blown fuse. The backup sampler was in service because the SPING was out of service for repair. Because it is unknown when the fuse blew, the sampler is assumed to have been non-functional since the last time it was known to be running on the previous day. Restoration of sampler functionality was delayed until the non-functionality was discovered. The sampler was restored to service 36 minutes after discovery.

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METEOROLOGICAL DATA

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

1. The following table represents the percentage of valid hours of recoverable meteorological data for 2009:

Parameter	Percentage of valid parameter hours in 2009				
	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Year
35 ft. Wind Speed	99.2%	100.0%	100.0%	99.5%	99.7%
150 ft. Wind Speed	99.9%	100.0%	100.0%	99.5%	99.8%
300 ft. Wind Speed	99.9%	100.0%	100.0%	93.2%	98.2%
35 ft. Wind Direction	99.9%	100.0%	100.0%	99.9%	99.9%
150 ft. Wind Direction	99.9%	100.0%	100.0%	97.5%	99.3%
300 ft. Wind Direction	97.5%	100.0%	100.0%	98.8%	99.1%
35 ft. Temperature	99.9%	99.9%	100.0%	99.9%	99.9%
150-35 ft. delta T	99.9%	99.7%	100.0%	99.9%	99.9%
300-35 ft. delta T	99.9%	99.9%	100.0%	99.9%	99.9%

2. Dresden station was able to achieve an average of 99.5% meteorological data recovery for the year. This exceeds the minimum criterion of 90% delineated in Regulatory Guide 1.23.
3. The remaining pages of this report contain the Dresden Station meteorological site quarterly joint-frequency wind rose tables for 2009.

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METEOROLOGICAL DATA

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

Period: January through March 2009

All Stabilities

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	3	8	17	16	25	7	5	1	0	0	82
NNE	0	5	3	8	9	18	11	4	3	0	0	61
NE	0	7	3	8	19	27	19	10	9	0	0	102
ENE	0	9	8	4	13	19	0	0	0	0	0	53
E	0	3	5	14	19	26	20	9	2	0	0	98
ESE	0	4	6	15	45	34	16	10	33	2	0	165
SE	0	1	1	3	23	18	14	10	6	6	1	83
SSE	0	9	7	10	29	36	30	24	19	11	2	177
S	0	3	5	4	28	25	18	24	41	14	1	163
SSW	0	10	7	10	24	14	12	10	14	6	4	111
SW	0	5	15	8	25	12	12	6	13	6	0	102
WSW	0	1	10	13	23	10	7	9	7	0	1	81
W	0	5	13	23	39	52	31	20	29	13	0	225
WNW	0	6	17	12	38	72	51	26	21	4	0	247
NW	0	5	18	21	42	51	27	31	12	0	0	207
NNW	0	7	13	25	49	40	21	9	19	0	0	183
Tot	0	83	139	195	441	479	296	207	229	62	9	2140

Hours of Calm . . . . .	3
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	2143
Hours of Missing Data . . . . .	17
Hours in Period . . . . .	2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class A - Extremely Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	3	4	11	1	4	0	0	0	23
NNE	0	0	0	0	1	7	4	0	0	0	0	12
NE	0	0	0	0	2	4	2	0	0	0	0	8
ENE	0	0	0	1	0	0	0	0	0	0	0	1
E	0	0	0	0	0	2	0	0	0	0	0	2
ESE	0	0	0	0	1	2	2	0	1	0	0	6
SE	0	0	0	0	3	6	3	2	0	0	0	14
SSE	0	0	0	0	0	3	0	2	4	0	0	9
S	0	0	0	0	0	0	0	1	2	1	0	4
SSW	0	0	0	0	2	3	2	0	4	0	0	11
SW	0	0	0	0	5	0	0	0	4	4	0	13
WSW	0	0	0	0	4	1	0	2	2	0	0	9
W	0	0	0	0	0	6	1	3	5	2	0	17
WNW	0	0	0	0	2	11	10	11	4	0	0	38
NW	0	0	0	0	2	9	3	2	1	0	0	17
NNW	0	0	0	1	4	11	4	2	2	0	0	24
Tot	0	0	0	5	30	76	32	29	29	7	0	208

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 208  
Hours of Missing Data . . . . . 17  
Hours in Period . . . . . 2160



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class B - Moderately Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	1	0	1	0	0	0	2
NNE	0	0	0	0	1	1	0	0	0	0	0	2
NE	0	0	0	0	1	1	1	2	0	0	0	5
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	1	0	0	0	0	0	0	1
ESE	0	0	0	0	3	0	0	0	1	0	0	4
SE	0	0	0	0	3	1	0	0	0	0	0	4
SSE	0	0	0	0	0	0	0	0	3	0	0	3
S	0	0	0	0	2	2	0	0	2	3	0	9
SSW	0	0	0	0	0	1	0	0	0	0	0	1
SW	0	0	0	0	1	0	0	0	0	1	0	2
WSW	0	0	0	0	3	1	0	1	2	0	0	7
W	0	0	0	0	0	0	2	0	2	1	0	5
WNW	0	0	0	0	2	8	5	2	0	0	0	17
NW	0	0	0	1	0	1	1	1	0	0	0	4
NNW	0	0	0	2	2	2	0	0	1	0	0	7
Tot	0	0	0	3	19	19	9	7	11	5	0	73

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 73  
Hours of Missing Data . . . . . 17  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class C - Slightly Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	2	0	0	0	0	2
NNE	0	0	0	0	1	0	2	0	0	0	0	3
NE	0	0	0	0	0	1	0	3	0	0	0	4
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	1	0	0	0	1
ESE	0	0	0	2	1	0	0	0	0	0	0	3
SE	0	0	0	1	1	1	1	1	0	0	0	5
SSE	0	0	0	0	0	0	0	0	1	1	0	2
S	0	0	1	0	1	2	0	2	4	0	0	10
SSW	0	0	0	0	0	1	0	0	0	0	1	2
SW	0	0	0	0	0	0	0	0	1	0	0	1
WSW	0	0	0	1	2	0	0	1	0	0	0	4
W	0	0	0	0	0	2	0	3	2	1	0	8
WNW	0	0	0	0	1	2	1	2	2	0	0	8
NW	0	0	1	1	0	0	2	0	0	0	0	4
NNW	0	0	0	1	2	3	1	0	0	0	0	7
Tot	0	0	2	6	9	12	9	13	10	2	1	64

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 64  
Hours of Missing Data . . . . . 17  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class D - Neutral

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	2	6	10	11	4	0	1	0	0	34
NNE	0	0	1	2	0	7	4	2	2	0	0	18
NE	0	2	1	2	7	16	16	4	3	0	0	51
ENE	0	1	3	1	6	13	0	0	0	0	0	24
E	0	1	0	4	6	15	13	8	2	0	0	49
ESE	0	0	3	4	10	15	6	5	23	0	0	66
SE	0	0	0	0	3	6	6	1	1	5	1	23
SSE	0	0	0	2	4	17	13	9	4	6	0	55
S	0	0	0	0	8	8	4	7	19	6	0	52
SSW	0	1	1	0	2	2	4	4	6	6	3	29
SW	0	0	4	0	5	2	9	4	3	1	0	28
WSW	0	0	3	6	10	3	4	4	2	0	0	32
W	0	0	2	5	12	16	11	9	13	7	0	75
WNW	0	0	4	3	14	18	24	11	9	2	0	85
NW	0	1	5	6	12	18	18	20	11	0	0	91
NNW	0	2	2	7	21	14	10	6	14	0	0	76
Tot	0	8	31	48	130	181	146	94	113	33	4	788

Hours of Calm . . . . .	1
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	789
Hours of Missing Data . . . . .	17
Hours in Period . . . . .	2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class E - Slightly Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	3	6	7	2	2	0	0	0	0	0	20
NNE	0	4	2	6	6	3	1	2	1	0	0	25
NE	0	1	1	6	9	5	0	1	6	0	0	29
ENE	0	2	5	2	7	6	0	0	0	0	0	22
E	0	1	1	8	11	8	7	0	0	0	0	36
ESE	0	2	1	4	20	17	8	5	8	2	0	67
SE	0	0	1	2	13	4	4	6	5	1	0	36
SSE	0	2	4	7	22	16	17	13	7	4	2	94
S	0	1	1	1	14	13	14	14	14	4	1	77
SSW	0	3	1	3	13	6	6	6	4	0	0	42
SW	0	5	3	2	5	7	3	2	5	0	0	32
WSW	0	1	6	1	2	4	3	1	1	0	1	20
W	0	2	8	16	26	28	17	5	7	2	0	111
WNW	0	4	10	8	18	33	11	0	6	2	0	92
NW	0	3	11	12	28	23	3	8	0	0	0	88
NNW	0	3	9	14	15	10	6	1	2	0	0	60
Tot	0	37	70	99	211	185	100	64	66	15	4	851

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 852  
Hours of Missing Data . . . . . 17  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class F - Moderately Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	1	0	0	0	0	0	0	0	1
NNE	0	1	0	0	0	0	0	0	0	0	0	1
NE	0	2	0	0	0	0	0	0	0	0	0	2
ENE	0	3	0	0	0	0	0	0	0	0	0	3
E	0	0	3	2	1	1	0	0	0	0	0	7
ESE	0	1	2	3	5	0	0	0	0	0	0	11
SE	0	1	0	0	0	0	0	0	0	0	0	1
SSE	0	7	1	0	3	0	0	0	0	0	0	11
S	0	1	3	3	2	0	0	0	0	0	0	9
SSW	0	3	5	6	7	1	0	0	0	0	0	22
SW	0	0	7	6	7	3	0	0	0	0	0	23
WSW	0	0	1	5	2	1	0	0	0	0	0	9
W	0	3	3	2	1	0	0	0	0	0	0	9
WNW	0	2	3	1	1	0	0	0	0	0	0	7
NW	0	1	1	1	0	0	0	0	0	0	0	3
NNW	0	0	2	0	5	0	0	0	0	0	0	7
Tot	0	25	31	30	34	6	0	0	0	0	0	126

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	126
Hours of Missing Data . . . . .	17
Hours in Period . . . . .	2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class G - Extremely Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	2	1	0	0	0	0	0	0	0	0	3
ENE	0	3	0	0	0	0	0	0	0	0	0	3
E	0	1	1	0	0	0	0	0	0	0	0	2
ESE	0	1	0	2	5	0	0	0	0	0	0	8
SE	0	0	0	0	0	0	0	0	0	0	0	0
SSE	0	0	2	1	0	0	0	0	0	0	0	3
S	0	1	0	0	1	0	0	0	0	0	0	2
SSW	0	3	0	1	0	0	0	0	0	0	0	4
SW	0	0	1	0	2	0	0	0	0	0	0	3
WSW	0	0	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0	0	0	0	0	0
NNW	0	2	0	0	0	0	0	0	0	0	0	2
Tot	0	13	5	4	8	0	0	0	0	0	0	30

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 31  
Hours of Missing Data . . . . . 17  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

All Stabilities

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	2	12	25	13	16	18	4	1	91
NNE	0	1	1	0	12	8	11	17	17	7	10	84
NE	0	1	1	2	6	11	11	26	14	2	0	74
ENE	0	3	0	6	14	10	15	4	2	0	0	54
E	0	3	4	3	10	18	24	16	25	3	0	106
ESE	0	0	0	4	16	17	26	24	20	23	13	143
SE	0	4	2	1	8	31	19	10	17	7	9	108
SSE	0	1	0	0	5	19	34	24	51	15	14	163
S	0	1	2	2	7	17	18	26	32	28	19	152
SSW	0	1	2	3	3	16	23	21	17	15	13	114
SW	0	0	2	4	18	19	11	13	21	7	13	108
WSW	0	0	0	6	20	13	11	5	18	6	4	83
W	0	1	2	4	23	32	46	42	63	36	25	274
WNW	0	0	2	3	18	24	27	47	66	26	4	217
NW	0	1	1	8	22	24	38	43	43	34	10	224
NNW	0	0	1	2	19	24	34	36	22	17	7	162
Tot	0	17	20	50	213	308	361	370	446	230	142	2157

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	2157
Hours of Missing Data . . . . .	3
Hours in Period . . . . .	2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class A - Extremely Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	1	2	2	5	5	4	3	0	22
NNE	0	0	0	0	1	0	0	7	4	0	0	12
NE	0	0	0	0	1	1	2	2	0	0	0	6
ENE	0	0	0	0	1	0	0	0	0	0	0	1
E	0	0	0	0	0	2	1	1	0	0	0	4
ESE	0	0	0	0	1	0	2	1	0	1	0	5
SE	0	0	0	0	2	6	2	2	2	0	0	14
SSE	0	0	0	0	0	1	2	0	8	0	0	11
S	0	0	0	0	0	2	0	1	0	1	1	5
SSW	0	0	0	0	2	1	1	1	1	3	2	11
SW	0	0	0	0	1	4	0	0	0	2	4	11
WSW	0	0	0	0	1	3	0	0	2	2	0	8
W	0	0	0	0	0	3	5	2	6	9	2	27
WNW	0	0	0	0	1	1	4	9	11	5	0	31
NW	0	0	0	0	0	0	3	8	7	3	0	21
NNW	0	0	0	0	2	3	5	6	4	1	1	22
Tot	0	0	0	1	15	29	32	45	49	30	10	211

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 211  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2160



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class B - Moderately Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	1	1	0	0	2
NNE	0	0	0	0	0	1	2	0	1	0	0	4
NE	0	0	0	0	0	0	0	1	2	0	0	3
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	1	0	0	0	0	0	1
ESE	0	0	0	0	3	0	0	0	0	1	0	4
SE	0	0	0	0	0	4	0	0	0	0	0	4
SSE	0	0	0	0	0	0	0	0	1	2	0	3
S	0	0	0	0	1	2	1	0	1	2	2	9
SSW	0	0	0	0	0	1	0	0	0	0	0	1
SW	0	0	0	0	1	1	0	0	0	1	2	5
WSW	0	0	0	0	1	2	0	0	1	0	0	4
W	0	0	0	0	0	1	0	2	1	1	2	7
WNW	0	0	0	0	0	4	2	5	4	1	0	16
NW	0	0	0	0	1	0	0	2	0	2	0	5
NNW	0	0	0	0	4	0	1	1	0	0	1	7
Tot	0	0	0	0	11	17	6	12	12	10	7	75

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	75
Hours of Missing Data . . . . .	3
Hours in Period . . . . .	2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class C - Slightly Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	0	2	1	0	3
NNE	0	0	0	0	0	0	1	0	2	0	0	3
NE	0	0	0	0	0	0	0	1	2	0	0	3
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	1	0	0	0	0	1	0	0	2
ESE	0	0	0	0	3	0	0	0	0	0	0	3
SE	0	0	0	0	1	1	0	0	2	0	0	4
SSE	0	0	0	0	0	0	0	0	2	2	0	4
S	0	0	0	1	0	2	1	0	1	3	1	9
SSW	0	0	0	0	0	1	0	0	0	0	0	1
SW	0	0	0	0	1	0	0	0	1	0	0	2
WSW	0	0	0	0	0	2	1	0	0	1	0	4
W	0	0	0	0	0	0	1	0	2	5	1	9
WNW	0	0	0	0	0	1	2	0	2	1	0	6
NW	0	0	0	2	0	0	0	1	1	0	0	4
NNW	0	0	0	0	2	1	1	2	1	0	0	7
Tot	0	0	0	4	7	8	7	4	19	13	2	64

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 64  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class D - Neutral

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)										Total	
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0		>10.00
N	0	0	0	1	3	7	5	7	9	0	1	33
NNE	0	1	1	0	4	1	1	7	10	3	3	31
NE	0	0	0	2	2	4	5	16	10	2	0	41
ENE	0	0	0	2	3	4	11	2	2	0	0	24
E	0	1	1	2	6	7	13	9	15	3	0	57
ESE	0	0	0	2	3	4	13	8	6	16	6	58
SE	0	0	1	0	1	2	7	5	3	1	7	27
SSE	0	1	0	0	2	4	11	11	16	3	5	53
S	0	0	0	0	1	6	7	4	10	13	6	47
SSW	0	0	0	1	1	4	0	5	5	7	8	31
SW	0	0	1	2	6	3	2	3	10	1	4	32
WSW	0	0	0	1	8	4	4	0	9	1	0	27
W	0	0	1	4	8	8	9	14	16	18	14	92
WNW	0	0	1	1	4	8	11	16	23	15	1	80
NW	0	0	1	3	7	6	9	15	22	23	10	96
NNW	0	0	1	2	4	8	14	12	10	13	5	69
Tot	0	3	8	23	63	80	122	134	176	119	70	798

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	798
Hours of Missing Data . . . . .	3
Hours in Period . . . . .	2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class E - Slightly Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	7	15	2	2	2	0	0	28
NNE	0	0	0	0	7	6	7	3	0	4	7	34
NE	0	1	1	0	2	5	4	6	0	0	0	19
ENE	0	1	0	4	10	6	4	2	0	0	0	27
E	0	0	0	0	4	7	10	4	9	0	0	34
ESE	0	0	0	1	3	8	11	14	14	5	7	63
SE	0	4	1	0	1	10	8	3	10	6	2	45
SSE	0	0	0	0	1	11	18	13	24	8	9	84
S	0	1	2	0	3	5	8	19	20	9	9	76
SSW	0	1	0	1	0	4	12	10	10	5	3	46
SW	0	0	0	2	4	3	3	4	7	3	3	29
WSW	0	0	0	3	5	0	2	1	5	2	4	22
W	0	1	0	0	6	16	26	23	38	3	6	119
WNW	0	0	1	2	12	9	7	17	26	4	3	81
NW	0	0	0	2	13	17	25	17	13	6	0	93
NNW	0	0	0	0	7	12	12	11	7	3	0	52
Tot	0	9	5	15	85	134	159	149	185	58	53	852

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 852  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class F - Moderately Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	1	1	1	0	0	0	3
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0	0	0	0	0	0
ENE	0	2	0	0	0	0	0	0	0	0	0	2
E	0	1	3	0	0	1	0	2	0	0	0	7
ESE	0	0	0	1	1	4	0	1	0	0	0	7
SE	0	0	0	1	2	4	1	0	0	0	0	8
SSE	0	0	0	0	0	2	2	0	0	0	0	4
S	0	0	0	0	1	0	1	2	0	0	0	4
SSW	0	0	0	1	0	4	8	4	1	0	0	18
SW	0	0	1	0	5	8	5	5	3	0	0	27
WSW	0	0	0	2	4	2	4	3	1	0	0	16
W	0	0	1	0	6	4	5	1	0	0	0	17
WNW	0	0	0	0	1	1	1	0	0	0	0	3
NW	0	1	0	1	1	1	1	0	0	0	0	5
NNW	0	0	0	0	0	0	1	4	0	0	0	5
Tot	0	4	5	6	21	32	30	23	5	0	0	126

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 126  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class G - Extremely Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	1	1	0	0	0	0	0	2
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	1	0	0	0	0	0	0	0	0	0	1
ESE	0	0	0	0	2	1	0	0	0	0	0	3
SE	0	0	0	0	1	4	1	0	0	0	0	6
SSE	0	0	0	0	2	1	1	0	0	0	0	4
S	0	0	0	1	1	0	0	0	0	0	0	2
SSW	0	0	2	0	0	1	2	1	0	0	0	6
SW	0	0	0	0	0	0	1	1	0	0	0	2
WSW	0	0	0	0	1	0	0	1	0	0	0	2
W	0	0	0	0	3	0	0	0	0	0	0	3
WNW	0	0	0	0	0	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	1	2	1	11	8	5	3	0	0	0	31

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 31  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

All Stabilities

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	1	5	7	26	22	30	11	1	103
NNE	0	0	0	1	4	7	7	14	20	9	7	69
NE	0	0	0	2	6	11	8	16	35	9	10	97
ENE	0	1	0	4	9	6	17	9	9	2	0	57
E	0	0	1	0	3	7	8	10	17	16	1	63
ESE	0	0	1	4	8	7	7	10	27	19	30	113
SE	0	0	2	1	7	17	16	18	21	13	16	111
SSE	0	2	2	0	4	11	19	31	27	33	23	152
S	0	0	3	2	6	8	14	8	39	50	39	169
SSW	0	0	0	2	5	8	5	7	26	33	26	112
SW	0	1	2	5	8	15	4	7	28	14	18	102
WSW	0	0	0	3	16	13	11	8	19	15	8	93
W	0	0	2	4	8	16	13	25	59	51	41	219
WNW	0	0	0	4	11	18	27	37	79	59	23	258
NW	0	0	1	2	8	16	22	37	66	44	21	217
NNW	0	0	0	2	9	14	23	30	43	28	23	172
Tot	0	4	14	37	117	181	227	289	545	406	287	2107

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 2107  
Hours of Missing Data . . . . . 53  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class A - Extremely Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	1	0	0	2	0	3
NNE	0	0	0	0	0	0	0	0	2	2	0	4
NE	0	0	0	0	0	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	1	0	0	1
SSE	0	0	0	0	0	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0	1	0	0	1	2
SW	0	0	0	0	0	0	0	0	0	0	1	1
WSW	0	0	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	1	0	0	2	0	3
WNW	0	0	0	0	0	0	0	1	4	4	0	9
NW	0	0	0	0	0	0	0	0	2	1	0	3
NNW	0	0	0	0	0	1	0	3	0	0	0	4
Tot	0	0	0	0	0	1	2	5	9	11	2	30

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 30  
Hours of Missing Data . . . . . 53  
Hours in Period . . . . . 2160



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class B - Moderately Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	3	1	0	2	0	6
NNE	0	0	0	0	0	0	0	3	3	0	0	6
NE	0	0	0	0	2	0	0	2	2	0	0	6
ENE	0	0	0	0	1	0	0	0	0	0	0	1
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	1	0	0	0	0	1
SE	0	0	0	0	0	1	4	0	1	0	0	6
SSE	0	0	0	0	0	0	0	0	2	1	1	4
S	0	0	0	0	0	0	0	0	2	0	2	4
SSW	0	0	0	0	0	0	2	0	0	1	0	3
SW	0	0	0	0	0	1	0	0	0	1	2	4
WSW	0	0	0	0	0	2	0	0	0	1	0	3
W	0	0	0	0	0	1	1	1	1	2	2	8
WNW	0	0	0	0	0	0	0	6	4	5	0	15
NW	0	0	0	0	1	0	1	3	1	2	0	8
NNW	0	0	0	0	0	2	2	0	2	0	0	6
Tot	0	0	0	0	4	7	14	16	18	15	7	81

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 81  
Hours of Missing Data . . . . . 53  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class C - Slightly Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	2	1	1	5	1	0	0	10
NNE	0	0	0	1	0	0	0	0	2	0	0	3
NE	0	0	0	0	0	1	1	1	1	1	0	5
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	2	0	1	0	0	3
ESE	0	0	0	0	1	0	0	1	0	0	0	2
SE	0	0	0	0	1	5	0	1	0	2	0	9
SSE	0	0	0	0	0	0	1	0	2	2	1	6
S	0	0	0	1	1	0	0	0	0	0	3	5
SSW	0	0	0	0	2	2	0	1	0	2	2	9
SW	0	0	0	0	1	2	0	0	0	2	3	8
WSW	0	0	0	0	1	3	0	0	1	1	1	7
W	0	0	0	0	0	0	2	1	1	1	6	11
WNW	0	0	0	0	1	3	3	4	3	4	2	20
NW	0	0	0	0	0	0	2	4	3	1	0	10
NNW	0	0	0	0	2	1	2	2	2	1	2	12
Tot	0	0	0	2	12	18	14	20	17	17	20	120

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 120  
Hours of Missing Data . . . . . 53  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class D - Neutral

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	1	3	5	9	6	21	6	1	52
NNE	0	0	0	0	1	6	3	7	11	7	7	42
NE	0	0	0	2	2	5	5	9	31	8	10	72
ENE	0	0	0	2	4	3	14	6	4	0	0	33
E	0	0	0	0	1	4	4	8	8	13	1	39
ESE	0	0	0	3	6	7	4	7	10	12	26	75
SE	0	0	0	1	4	6	5	7	7	5	12	47
SSE	0	1	0	0	2	5	3	12	15	11	16	65
S	0	0	0	0	0	5	7	0	15	28	15	70
SSW	0	0	0	1	1	5	0	4	9	9	11	40
SW	0	0	2	4	2	10	3	2	12	3	5	43
WSW	0	0	0	1	8	8	2	0	2	6	5	32
W	0	0	1	3	5	8	6	13	19	22	29	106
WNW	0	0	0	4	5	8	14	16	39	35	20	141
NW	0	0	1	2	4	5	6	20	37	31	20	126
NNW	0	0	0	1	7	3	11	18	20	13	21	94
Tot	0	1	4	25	55	93	96	135	260	209	199	1077

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 1077  
Hours of Missing Data . . . . . 53  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class E - Slightly Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	0	0	1	11	10	5	0	0	27
NNE	0	0	0	0	3	1	3	4	2	0	0	13
NE	0	0	0	0	2	4	1	3	1	0	0	11
ENE	0	1	0	2	4	3	3	3	5	1	0	22
E	0	0	1	0	2	3	2	2	8	3	0	21
ESE	0	0	1	1	1	0	2	2	16	6	4	33
SE	0	0	1	0	0	3	7	10	9	6	4	40
SSE	0	0	0	0	1	0	9	15	8	19	5	57
S	0	0	2	1	2	2	2	8	21	21	19	78
SSW	0	0	0	0	1	1	3	1	15	14	12	47
SW	0	1	0	1	5	2	1	4	12	6	7	39
WSW	0	0	0	2	6	0	2	3	8	5	2	28
W	0	0	1	0	2	7	3	6	32	23	4	78
WNW	0	0	0	0	2	7	7	10	26	10	1	63
NW	0	0	0	0	2	10	12	10	22	9	1	66
NNW	0	0	0	0	0	7	8	7	18	12	0	52
Tot	0	2	6	7	33	51	76	98	208	135	59	675

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 675  
Hours of Missing Data . . . . . 53  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class F - Moderately Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	1	0	3	1	0	5
NNE	0	0	0	0	0	0	1	0	0	0	0	1
NE	0	0	0	0	0	0	1	1	0	0	0	2
ENE	0	0	0	0	0	0	0	0	0	1	0	1
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0	1	1	0	2
SE	0	0	1	0	2	2	0	0	3	0	0	8
SSE	0	1	2	0	1	6	6	2	0	0	0	18
S	0	0	1	0	3	0	3	0	1	1	0	9
SSW	0	0	0	1	1	0	0	0	2	6	0	10
SW	0	0	0	0	0	0	0	0	1	0	0	1
WSW	0	0	0	0	1	0	7	4	7	2	0	21
W	0	0	0	1	1	0	0	4	6	1	0	13
WNW	0	0	0	0	3	0	3	0	3	1	0	10
NW	0	0	0	0	1	1	1	0	1	0	0	4
NNW	0	0	0	1	0	0	0	0	1	2	0	4
Tot	0	1	4	3	13	9	23	11	29	16	0	109

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 109  
Hours of Missing Data . . . . . 53  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: January through March 2009

Stability Class G - Extremely Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	1	0	0	0	0	0	1
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0	2	0	0	0	2
S	0	0	0	0	0	1	2	0	0	0	0	3
SSW	0	0	0	0	0	0	0	0	0	1	0	1
SW	0	0	0	0	0	0	0	1	3	2	0	6
WSW	0	0	0	0	0	0	0	1	1	0	0	2
W	0	0	0	0	0	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	0	0	0	0	2	2	4	4	3	0	15

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 15  
Hours of Missing Data . . . . . 53  
Hours in Period . . . . . 2160

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

All Stabilities

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	3	14	8	23	3	8	6	2	0	0	67
NNE	0	2	9	15	28	37	15	9	1	0	0	116
NE	0	4	12	22	68	70	36	17	9	0	0	238
ENE	0	3	12	22	61	24	16	3	0	0	0	141
E	0	6	8	15	54	33	19	12	1	0	0	148
ESE	0	6	7	20	53	31	25	12	3	0	0	157
SE	0	4	10	14	22	15	6	8	4	0	0	83
SSE	0	8	9	17	18	15	11	9	6	1	0	94
S	1	4	15	10	34	29	18	15	18	6	0	150
SSW	0	9	9	9	21	20	14	15	21	16	1	135
SW	1	14	15	20	19	9	6	7	12	3	0	106
WSW	0	11	22	13	21	17	13	9	13	5	0	124
W	1	12	17	21	25	34	24	15	6	0	0	155
WNW	0	10	10	16	25	55	24	17	21	1	0	179
NW	0	17	12	19	17	43	17	24	16	0	0	165
NNW	0	8	12	10	21	19	22	6	0	0	0	98
Tot	3	121	193	251	510	454	274	184	133	32	1	2156

Hours of Calm . . . . . 22  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 2178  
Hours of Missing Data . . . . . 6  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class A - Extremely Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	5	0	0	0	0	0	0	5
NNE	0	0	1	2	1	4	2	0	0	0	0	10
NE	0	0	0	5	10	23	11	3	2	0	0	54
ENE	0	0	0	0	4	7	1	0	0	0	0	12
E	0	0	0	2	8	1	2	1	0	0	0	14
ESE	0	0	0	0	2	2	4	3	1	0	0	12
SE	0	0	0	0	0	0	0	1	2	0	0	3
SSE	0	0	0	0	1	0	0	4	0	0	0	5
S	0	0	0	0	0	0	1	3	0	0	0	4
SSW	0	0	0	0	1	0	0	0	7	0	0	8
SW	0	0	0	1	3	2	0	0	4	0	0	10
WSW	0	0	0	0	1	2	6	3	3	4	0	19
W	0	0	0	0	0	5	6	8	1	0	0	20
WNW	0	0	0	1	2	4	6	3	5	0	0	21
NW	0	0	0	1	1	0	3	8	13	0	0	26
NNW	0	0	0	1	2	0	1	1	0	0	0	5
Tot	0	0	1	13	41	50	43	38	38	4	0	228

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 228  
Hours of Missing Data . . . . . 6  
Hours in Period . . . . . 2184



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class B - Moderately Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	1	1	0	0	0	0	0	0	0	2
NNE	0	0	0	0	0	2	1	0	0	0	0	3
NE	0	0	0	0	3	2	3	1	1	0	0	10
ENE	0	0	0	1	1	0	1	0	0	0	0	3
E	0	0	0	1	0	0	1	0	0	0	0	2
ESE	0	0	1	0	1	1	1	0	0	0	0	4
SE	0	0	0	0	1	3	1	0	0	0	0	5
SSE	0	0	0	3	1	0	1	0	0	0	0	5
S	0	0	0	0	1	1	1	1	0	0	0	4
SSW	0	0	0	0	1	0	1	1	2	0	0	5
SW	0	0	0	2	1	1	0	0	1	0	0	5
WSW	0	0	0	0	4	2	0	1	1	1	0	9
W	0	0	0	0	0	0	1	0	0	0	0	1
WNW	0	0	0	0	0	2	0	1	4	0	0	7
NW	0	0	0	0	0	3	1	1	0	0	0	5
NNW	0	0	1	0	0	0	2	1	0	0	0	4
Tot	0	0	3	8	14	17	15	7	9	1	0	74

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	74
Hours of Missing Data . . . . .	6
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class C - Slightly Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	2	0	1	1	0	0	0	0	0	4
NNE	0	0	0	1	0	0	0	0	0	0	0	1
NE	0	0	0	1	1	3	1	2	0	0	0	8
ENE	0	0	0	1	1	0	1	0	0	0	0	3
E	0	0	1	0	0	1	0	0	0	0	0	2
ESE	0	0	1	2	3	0	2	0	0	0	0	8
SE	0	0	0	1	0	1	0	0	0	0	0	2
SSE	0	0	1	1	0	0	2	1	0	0	0	5
S	0	0	2	1	1	0	2	3	1	0	0	10
SSW	0	0	1	0	1	0	0	2	0	1	0	5
SW	0	0	0	1	0	1	0	2	2	0	0	6
WSW	0	0	1	0	0	2	2	1	0	0	0	6
W	0	0	1	0	3	1	0	0	0	0	0	5
WNW	0	0	0	0	0	1	3	0	2	0	0	6
NW	0	0	1	0	0	4	2	1	1	0	0	9
NNW	0	0	0	0	0	2	1	0	0	0	0	3
Tot	0	0	11	9	11	17	16	12	6	1	0	83

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 83  
Hours of Missing Data . . . . . 6  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class D - Neutral

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	1	3	6	2	2	1	1	0	0	16
NNE	0	0	3	1	16	16	9	6	1	0	0	52
NE	0	0	1	3	25	30	19	10	6	0	0	94
ENE	0	0	1	3	26	15	11	3	0	0	0	59
E	0	1	1	3	21	18	11	11	1	0	0	67
ESE	0	1	4	7	13	18	9	6	1	0	0	59
SE	0	0	2	4	9	2	2	2	2	0	0	23
SSE	0	0	4	5	6	4	3	1	6	1	0	30
S	0	1	4	4	7	6	4	4	2	1	0	33
SSW	0	4	2	2	9	7	6	7	5	7	1	50
SW	0	2	2	1	3	0	2	2	4	1	0	17
WSW	0	1	5	4	5	7	3	2	7	0	0	34
W	0	2	2	6	6	10	8	3	4	0	0	41
WNW	0	2	2	0	9	30	11	12	10	1	0	77
NW	0	0	3	1	2	25	10	13	2	0	0	56
NNW	0	1	5	1	6	8	13	2	0	0	0	36
Tot	0	15	42	48	169	198	123	85	52	11	1	744

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 745  
Hours of Missing Data . . . . . 6  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class E - Slightly Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	2	7	4	11	0	6	5	1	0	0	36
NNE	0	0	5	11	11	15	3	3	0	0	0	48
NE	0	2	6	12	28	12	2	1	0	0	0	63
ENE	0	1	6	17	29	2	2	0	0	0	0	57
E	0	5	1	5	25	13	5	0	0	0	0	54
ESE	0	2	1	4	28	10	9	3	1	0	0	58
SE	0	0	7	8	9	9	3	5	0	0	0	41
SSE	0	1	4	7	9	11	5	3	0	0	0	40
S	0	1	6	2	21	19	9	4	15	5	0	82
SSW	0	2	4	6	8	9	7	5	7	8	0	56
SW	0	1	5	2	3	5	4	3	1	2	0	26
WSW	0	2	4	6	9	4	2	2	2	0	0	31
W	0	4	7	10	15	18	9	4	1	0	0	68
WNW	0	5	2	12	14	18	4	1	0	0	0	56
NW	0	2	5	15	14	11	1	1	0	0	0	49
NNW	0	2	3	4	11	7	5	2	0	0	0	34
Tot	0	32	73	125	245	163	76	42	28	15	0	799

Hours of Calm . . . . .	4
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	803
Hours of Missing Data . . . . .	6
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class F - Moderately Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	2	0	0	0	0	0	0	0	0	3
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	2	5	1	1	0	0	0	0	0	0	9
ENE	0	2	5	0	0	0	0	0	0	0	0	7
E	0	0	4	2	0	0	0	0	0	0	0	6
ESE	0	2	0	6	5	0	0	0	0	0	0	13
SE	0	3	1	1	3	0	0	0	0	0	0	8
SSE	0	4	0	1	1	0	0	0	0	0	0	6
S	0	1	2	3	4	3	1	0	0	0	0	14
SSW	0	2	1	1	1	4	0	0	0	0	0	9
SW	1	6	5	7	7	0	0	0	0	0	0	26
WSW	0	4	6	3	1	0	0	0	0	0	0	14
W	0	4	7	5	1	0	0	0	0	0	0	17
WNW	0	1	6	3	0	0	0	0	0	0	0	10
NW	0	14	3	2	0	0	0	0	0	0	0	19
NNW	0	2	3	4	2	2	0	0	0	0	0	13
Tot	1	48	50	39	26	9	1	0	0	0	0	174

Hours of Calm . . . . . 5  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 179  
Hours of Missing Data . . . . . 6  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class G - Extremely Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	1	0	0	0	0	0	0	0	0	1
NNE	0	2	0	0	0	0	0	0	0	0	0	2
NE	0	0	0	0	0	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	1	2	0	0	0	0	0	0	0	3
ESE	0	1	0	1	1	0	0	0	0	0	0	3
SE	0	1	0	0	0	0	0	0	0	0	0	1
SSE	0	3	0	0	0	0	0	0	0	0	0	3
S	1	1	1	0	0	0	0	0	0	0	0	3
SSW	0	1	1	0	0	0	0	0	0	0	0	2
SW	0	5	3	6	2	0	0	0	0	0	0	16
WSW	0	4	6	0	1	0	0	0	0	0	0	11
W	1	2	0	0	0	0	0	0	0	0	0	3
WNW	0	2	0	0	0	0	0	0	0	0	0	2
NW	0	1	0	0	0	0	0	0	0	0	0	1
NNW	0	3	0	0	0	0	0	0	0	0	0	3
Tot	2	26	13	9	4	0	0	0	0	0	0	54

Hours of Calm . . . . .	12
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	66
Hours of Missing Data . . . . .	6
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

All Stabilities

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	5	7	13	14	12	7	8	7	2	76
NNE	0	2	1	2	26	27	28	27	23	14	2	152
NE	0	0	1	6	40	53	50	30	32	5	2	219
ENE	0	0	3	11	39	55	29	9	11	2	0	159
E	0	1	2	9	19	29	31	21	19	5	0	136
ESE	0	0	2	10	14	26	30	27	28	2	1	140
SE	0	1	5	4	20	19	22	5	18	2	0	96
SSE	0	0	3	12	13	21	9	10	14	6	3	91
S	0	3	2	7	13	18	27	22	32	12	21	157
SSW	0	0	6	3	15	15	18	12	31	15	11	126
SW	0	1	4	6	16	16	15	10	12	6	10	96
WSW	0	1	4	8	18	32	22	21	11	8	7	132
W	0	3	3	6	24	32	34	26	47	7	5	187
WNW	0	2	3	7	9	22	39	39	22	33	8	184
NW	0	2	9	7	5	18	25	22	25	22	3	138
NNW	0	1	1	5	14	13	9	13	28	5	0	89
Tot	0	18	54	110	298	410	400	301	361	151	75	2178

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	2178
Hours of Missing Data . . . . .	6
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class A - Extremely Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	2	1	2	1	1	0	0	0	7
NNE	0	0	0	1	2	2	1	5	3	0	0	14
NE	0	0	0	0	4	15	14	9	6	1	1	50
ENE	0	0	0	0	3	4	4	1	1	0	0	13
E	0	0	0	2	4	3	3	1	2	0	0	15
ESE	0	0	0	0	0	1	0	3	3	1	0	8
SE	0	0	0	0	0	0	0	0	3	0	0	3
SSE	0	0	0	0	1	0	0	0	4	0	0	5
S	0	0	0	0	0	0	0	0	3	1	0	4
SSW	0	0	0	0	0	0	0	0	5	3	0	8
SW	0	0	0	1	2	2	3	1	0	2	2	13
WSW	0	0	0	0	0	2	1	5	4	0	5	17
W	0	0	0	0	1	1	4	3	12	0	1	22
WNW	0	0	0	0	1	1	3	2	5	13	2	27
NW	0	0	0	0	0	1	0	0	3	9	3	16
NNW	0	0	0	0	1	3	0	0	1	1	0	6
Tot	0	0	0	6	20	37	34	31	55	31	14	228
Hours of Calm . . . . .												0
Hours of Variable Direction . . . . .												0
Hours of Valid Data . . . . .												228
Hours of Missing Data . . . . .												6
Hours in Period . . . . .												2184



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class B - Moderately Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	1	1	0	0	0	0	0	0	2
NNE	0	0	0	0	1	2	0	1	0	0	0	4
NE	0	0	0	0	2	1	2	1	3	1	0	10
ENE	0	0	0	0	1	0	0	1	0	0	0	2
E	0	0	1	0	1	1	0	0	1	0	0	4
ESE	0	0	0	0	0	1	0	0	1	0	0	2
SE	0	0	0	0	0	3	1	1	0	0	0	5
SSE	0	0	0	1	1	1	0	1	0	0	0	4
S	0	0	0	0	1	1	1	1	1	1	0	6
SSW	0	0	0	0	0	1	0	1	3	0	0	5
SW	0	0	0	1	0	2	1	0	0	0	1	5
WSW	0	0	0	1	2	3	1	1	1	0	1	10
W	0	0	0	0	0	0	0	0	1	0	0	1
WNW	0	0	0	0	0	0	2	1	1	1	3	8
NW	0	0	0	0	0	0	0	1	1	1	0	3
NNW	0	0	0	0	0	0	0	0	2	1	0	3
Tot	0	0	1	4	10	16	8	10	15	5	5	74

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 74  
Hours of Missing Data . . . . . 6  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class C - Slightly Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	1	0	1	1	0	0	0	0	3
NNE	0	0	0	0	1	0	0	1	0	0	0	2
NE	0	0	0	0	3	0	2	1	2	0	0	8
ENE	0	0	0	1	0	1	1	1	0	0	0	4
E	0	0	0	0	1	1	0	0	0	0	0	2
ESE	0	0	0	1	3	0	0	2	0	0	0	6
SE	0	0	1	0	1	1	0	0	0	0	0	3
SSE	0	0	0	2	0	0	2	0	1	0	0	5
S	0	0	0	2	0	1	0	2	3	1	1	10
SSW	0	0	2	0	1	0	0	0	2	0	0	5
SW	0	0	0	0	0	0	1	0	2	1	1	5
WSW	0	0	0	1	2	2	0	3	1	0	0	9
W	0	0	0	0	0	1	2	0	0	0	0	3
WNW	0	0	0	0	0	0	0	0	3	2	1	6
NW	0	0	0	2	0	0	3	3	0	1	0	9
NNW	0	0	0	0	0	1	1	0	1	0	0	3
Tot	0	0	3	10	12	9	13	13	15	5	3	83

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 83  
Hours of Missing Data . . . . . 6  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class D - Neutral

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	3	2	2	2	4	3	4	1	2	23
NNE	0	0	0	0	8	9	17	10	11	13	2	70
NE	0	0	0	2	9	18	22	15	19	3	1	89
ENE	0	0	1	1	8	20	14	3	7	2	0	56
E	0	1	1	2	5	12	15	9	12	5	0	62
ESE	0	0	2	6	4	8	9	10	14	1	0	54
SE	0	0	1	2	8	5	1	1	4	2	0	24
SSE	0	0	3	5	4	6	2	0	3	5	1	29
S	0	3	0	4	5	5	4	5	4	4	2	36
SSW	0	0	4	1	5	4	6	3	8	6	7	44
SW	0	0	2	2	0	5	0	1	2	3	3	18
WSW	0	0	2	3	6	3	4	6	2	4	1	31
W	0	1	3	0	8	4	8	9	8	7	3	51
WNW	0	0	2	0	1	4	19	22	11	16	2	77
NW	0	0	4	2	1	4	10	5	13	11	0	50
NNW	0	0	1	1	4	5	1	3	15	1	0	31
Tot	0	5	29	33	78	114	136	105	137	84	24	745

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	745
Hours of Missing Data . . . . .	6
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class E - Slightly Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	0	1	5	5	5	3	4	6	0	30
NNE	0	0	0	1	14	14	10	10	9	1	0	59
NE	0	0	1	2	20	19	10	4	2	0	0	58
ENE	0	0	1	4	21	28	10	3	3	0	0	70
E	0	0	0	4	3	11	13	11	4	0	0	46
ESE	0	0	0	2	3	15	19	9	10	0	1	59
SE	0	1	1	1	6	6	10	3	11	0	0	39
SSE	0	0	0	1	5	10	5	9	6	1	2	39
S	0	0	0	1	3	10	19	13	17	5	18	86
SSW	0	0	0	2	5	7	11	6	10	6	4	51
SW	0	0	1	1	7	3	1	4	8	0	3	28
WSW	0	1	1	1	3	8	7	4	3	4	0	32
W	0	1	0	3	6	11	16	14	26	0	1	78
WNW	0	2	1	2	2	12	13	14	2	1	0	49
NW	0	1	1	0	3	9	12	13	8	0	0	47
NNW	0	0	0	3	4	2	4	8	9	2	0	32
Tot	0	7	7	29	110	170	165	128	132	26	29	803

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	803
Hours of Missing Data . . . . .	6
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class F - Moderately Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	1	0	3	4	1	0	0	0	0	9
NNE	0	2	0	0	0	0	0	0	0	0	0	2
NE	0	0	0	1	2	0	0	0	0	0	0	3
ENE	0	0	1	5	5	2	0	0	0	0	0	13
E	0	0	0	1	3	1	0	0	0	0	0	5
ESE	0	0	0	1	4	1	1	3	0	0	0	10
SE	0	0	2	1	3	4	7	0	0	0	0	17
SSE	0	0	0	2	1	3	0	0	0	0	0	6
S	0	0	2	0	3	1	3	1	4	0	0	14
SSW	0	0	0	0	2	1	1	2	3	0	0	9
SW	0	1	0	1	2	4	8	3	0	0	0	19
WSW	0	0	0	0	1	8	3	2	0	0	0	14
W	0	1	0	3	3	10	4	0	0	0	0	21
WNW	0	0	0	2	5	5	2	0	0	0	0	14
NW	0	1	3	1	1	4	0	0	0	0	0	10
NNW	0	1	0	0	5	2	3	2	0	0	0	13
Tot	0	6	9	18	43	50	33	13	7	0	0	179

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	179
Hours of Missing Data . . . . .	6
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class G - Extremely Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total	
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00		
N	0	0	1	0	1	0	0	0	0	0	0	0	2
NNE	0	0	1	0	0	0	0	0	0	0	0	0	1
NE	0	0	0	1	0	0	0	0	0	0	0	0	1
ENE	0	0	0	0	1	0	0	0	0	0	0	0	1
E	0	0	0	0	2	0	0	0	0	0	0	0	2
ESE	0	0	0	0	0	0	1	0	0	0	0	0	1
SE	0	0	0	0	2	0	3	0	0	0	0	0	5
SSE	0	0	0	1	1	1	0	0	0	0	0	0	3
S	0	0	0	0	1	0	0	0	0	0	0	0	1
SSW	0	0	0	0	2	2	0	0	0	0	0	0	4
SW	0	0	1	0	5	0	1	1	0	0	0	0	8
WSW	0	0	1	2	4	6	6	0	0	0	0	0	19
W	0	0	0	0	6	5	0	0	0	0	0	0	11
WNW	0	0	0	3	0	0	0	0	0	0	0	0	3
NW	0	0	1	2	0	0	0	0	0	0	0	0	3
NNW	0	0	0	1	0	0	0	0	0	0	0	0	1
Tot	0	0	5	10	25	14	11	1	0	0	0	0	66

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	66
Hours of Missing Data . . . . .	6
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

All Stabilities

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	2	3	5	11	3	8	17	7	5	61
NNE	0	0	2	3	14	11	20	25	32	13	11	131
NE	0	0	3	1	15	37	48	50	51	17	8	230
ENE	0	1	2	4	27	46	49	20	23	1	0	173
E	0	0	2	3	12	23	25	28	29	19	3	144
ESE	0	0	2	5	9	13	14	19	41	12	1	116
SE	0	0	1	2	15	14	15	19	28	17	3	114
SSE	0	1	2	5	13	14	11	15	25	9	4	99
S	0	0	2	7	5	12	15	11	47	19	22	140
SSW	0	1	5	2	9	10	5	15	31	39	30	147
SW	0	3	9	2	8	8	10	10	16	16	8	90
WSW	0	0	2	3	15	14	11	18	28	7	19	117
W	0	0	2	5	13	16	26	25	48	27	8	170
WNW	0	0	3	0	10	9	27	38	45	29	26	187
NW	0	2	4	6	4	12	23	31	40	31	15	168
NNW	0	1	2	4	7	7	10	9	29	25	0	94
Tot	0	9	45	55	181	257	312	341	530	288	163	2181

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 2181  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class A - Extremely Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	2	0	0	0	0	0	2
NNE	0	0	0	0	2	0	0	2	1	0	0	5
NE	0	0	0	0	0	4	6	5	0	1	1	17
ENE	0	0	0	0	1	2	4	0	0	0	0	7
E	0	0	0	0	1	0	0	1	0	0	0	2
ESE	0	0	0	0	0	0	0	2	1	1	0	4
SE	0	0	0	0	0	0	0	0	1	0	0	1
SSE	0	0	0	0	0	0	0	0	1	0	0	1
S	0	0	0	0	0	0	0	0	1	0	0	1
SSW	0	0	0	0	0	0	0	0	0	1	0	1
SW	0	0	0	0	1	0	1	0	0	2	0	4
WSW	0	0	0	0	0	0	0	1	1	0	4	6
W	0	0	0	0	0	0	0	1	4	2	0	7
WNW	0	0	0	0	0	0	0	0	1	1	1	3
NW	0	0	0	0	0	0	0	0	0	4	7	11
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	0	0	0	5	8	11	12	11	12	13	72

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 72  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2184



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class B - Moderately Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	1	0	0	0	0	0	1
NNE	0	0	0	1	0	1	3	0	1	0	0	6
NE	0	0	0	0	5	5	3	4	7	0	1	25
ENE	0	0	0	0	2	2	1	2	1	0	0	8
E	0	0	0	0	5	4	2	0	1	0	0	12
ESE	0	0	0	0	0	1	1	1	1	0	0	4
SE	0	0	0	0	0	0	1	0	0	3	0	4
SSE	0	0	0	0	2	0	0	0	4	0	0	6
S	0	0	0	0	1	1	1	0	3	0	0	6
SSW	0	0	0	0	0	0	0	0	0	6	1	7
SW	0	0	0	1	0	1	1	0	0	1	1	5
WSW	0	0	0	0	2	2	1	3	2	2	3	15
W	0	0	0	0	0	1	3	1	6	3	1	15
WNW	0	0	0	0	1	1	2	3	4	2	5	18
NW	0	0	0	0	0	1	0	0	2	4	3	10
NNW	0	0	0	0	0	1	2	0	1	0	0	4
Tot	0	0	0	2	18	22	21	14	33	21	15	146

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 146  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class C - Slightly Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	1	1	0	2	0	0	0	0	0	4
NNE	0	0	0	1	3	1	0	2	1	0	1	9
NE	0	0	0	0	1	3	3	4	7	1	1	20
ENE	0	0	0	1	3	2	1	2	1	0	0	10
E	0	0	0	1	1	2	0	0	2	0	0	6
ESE	0	0	0	1	1	1	0	1	2	0	0	6
SE	0	0	0	0	1	3	0	0	1	0	0	5
SSE	0	0	0	2	1	2	0	2	1	0	0	8
S	0	0	0	2	1	1	0	0	6	1	0	11
SSW	0	0	1	0	1	1	0	0	3	2	0	8
SW	0	0	2	0	0	0	0	1	1	2	1	7
WSW	0	0	0	3	3	4	0	3	1	1	2	17
W	0	0	0	0	1	2	3	1	1	0	0	8
WNW	0	0	0	0	0	0	1	1	1	1	6	10
NW	0	0	0	2	0	0	3	1	2	1	3	12
NNW	0	0	0	1	0	0	2	0	0	1	0	4
Tot	0	0	4	15	17	24	13	18	30	10	14	145

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	145
Hours of Missing Data . . . . .	3
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class D - Neutral

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)										Total	
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0		>10.00
N	0	0	1	1	3	3	0	4	6	4	5	27
NNE	0	0	1	1	6	3	10	13	17	8	10	69
NE	0	0	0	1	9	14	21	31	28	14	5	123
ENE	0	1	2	1	10	20	30	14	20	1	0	99
E	0	0	0	2	2	6	14	16	16	19	3	78
ESE	0	0	1	4	6	7	8	8	20	7	0	61
SE	0	0	1	1	8	8	4	1	4	11	2	40
SSE	0	1	2	2	4	8	3	2	4	5	4	35
S	0	0	1	4	3	5	4	1	12	6	5	41
SSW	0	0	2	1	6	3	2	7	7	9	16	53
SW	0	2	5	0	1	2	2	2	6	3	6	29
WSW	0	0	1	0	3	3	6	3	8	3	5	32
W	0	0	0	2	6	4	4	10	15	11	6	58
WNW	0	0	3	0	4	3	8	22	22	13	13	88
NW	0	0	4	3	1	4	13	16	16	21	2	80
NNW	0	0	2	1	3	4	3	2	17	17	0	49
Tot	0	4	26	24	75	97	132	152	218	152	82	962

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	962
Hours of Missing Data . . . . .	3
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class E - Slightly Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	1	1	3	0	1	4	0	0	10
NNE	0	0	0	0	0	5	7	6	11	5	0	34
NE	0	0	2	0	0	10	15	6	8	1	0	42
ENE	0	0	0	2	10	17	11	2	1	0	0	43
E	0	0	0	0	2	6	6	6	9	0	0	29
ESE	0	0	1	0	1	3	5	5	16	4	1	36
SE	0	0	0	1	4	3	8	16	16	3	1	52
SSE	0	0	0	1	5	3	7	7	13	4	0	40
S	0	0	0	0	0	2	6	10	25	12	17	72
SSW	0	1	1	0	0	4	3	7	19	16	13	64
SW	0	1	2	0	4	3	6	6	5	6	0	33
WSW	0	0	0	0	5	5	3	3	7	1	5	29
W	0	0	1	2	5	5	4	7	16	11	1	52
WNW	0	0	0	0	1	3	10	9	11	10	1	45
NW	0	2	0	1	1	1	5	11	20	1	0	42
NNW	0	1	0	0	3	0	1	4	10	4	0	23
Tot	0	5	7	8	42	73	97	106	191	78	39	646

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 646  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class F - Moderately Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)										Total	
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0		>10.00
N	0	0	0	0	0	0	3	3	7	3	0	16
NNE	0	0	1	0	1	0	0	2	1	0	0	5
NE	0	0	1	0	0	0	0	0	1	0	0	2
ENE	0	0	0	0	0	3	2	0	0	0	0	5
E	0	0	2	0	0	5	3	4	1	0	0	15
ESE	0	0	0	0	1	1	0	0	1	0	0	3
SE	0	0	0	0	2	0	2	1	4	0	0	9
SSE	0	0	0	0	1	1	1	4	0	0	0	7
S	0	0	1	1	0	2	1	0	0	0	0	5
SSW	0	0	1	1	1	2	0	1	2	5	0	13
SW	0	0	0	0	1	2	0	1	3	2	0	9
WSW	0	0	1	0	2	0	1	5	8	0	0	17
W	0	0	0	1	1	4	9	5	6	0	0	26
WNW	0	0	0	0	4	2	2	2	6	2	0	18
NW	0	0	0	0	1	5	2	3	0	0	0	11
NNW	0	0	0	2	1	2	2	3	1	3	0	14
Tot	0	0	7	5	16	29	28	34	41	15	0	175

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 175  
Hours of Missing Data . . . . . 3  
Hours in Period . . . . . 2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: April through June 2009

Stability Class G - Extremely Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)										Total	
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0		>10.00
N	0	0	0	0	1	0	0	0	0	0	0	1
NNE	0	0	0	0	2	1	0	0	0	0	0	3
NE	0	0	0	0	0	1	0	0	0	0	0	1
ENE	0	0	0	0	1	0	0	0	0	0	0	1
E	0	0	0	0	1	0	0	1	0	0	0	2
ESE	0	0	0	0	0	0	0	2	0	0	0	2
SE	0	0	0	0	0	0	0	1	2	0	0	3
SSE	0	0	0	0	0	0	0	0	2	0	0	2
S	0	0	0	0	0	1	3	0	0	0	0	4
SSW	0	0	0	0	1	0	0	0	0	0	0	1
SW	0	0	0	1	1	0	0	0	1	0	0	3
WSW	0	0	0	0	0	0	0	0	1	0	0	1
W	0	0	1	0	0	0	3	0	0	0	0	4
WNW	0	0	0	0	0	0	4	1	0	0	0	5
NW	0	0	0	0	1	1	0	0	0	0	0	2
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	0	1	1	8	4	10	5	6	0	0	35

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	35
Hours of Missing Data . . . . .	3
Hours in Period . . . . .	2184

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

All Stabilities

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	4	24	21	30	10	4	0	0	0	0	93
NNE	0	4	9	27	25	14	1	0	1	0	0	81
NE	0	3	19	38	63	23	6	3	0	0	0	155
ENE	0	6	15	53	92	11	2	0	0	0	0	179
E	0	2	10	21	95	31	3	0	0	0	0	162
ESE	0	1	12	12	33	20	13	1	0	0	0	92
SE	0	4	9	12	24	21	12	13	2	0	0	97
SSE	0	7	4	15	29	17	21	8	0	0	0	101
S	0	8	18	10	46	11	18	5	2	0	0	118
SSW	0	5	12	19	26	34	28	16	15	0	0	155
SW	0	5	21	35	29	23	18	6	17	0	0	154
WSW	0	5	18	22	22	19	15	5	3	0	0	109
W	0	9	17	28	35	24	9	7	11	2	0	142
WNW	0	14	27	22	52	37	19	10	8	1	0	190
NW	0	14	52	33	62	47	17	8	1	0	0	234
NNW	0	4	31	21	41	32	8	5	1	0	0	143
Tot	0	95	298	389	704	374	194	87	61	3	0	2205
Hours of Calm . . . . .												2
Hours of Variable Direction . . . . .												0
Hours of Valid Data . . . . .												2207
Hours of Missing Data . . . . .												1
Hours in Period . . . . .												2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class A - Extremely Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	2	1	7	2	0	0	0	0	0	12
NNE	0	0	0	2	4	1	0	0	0	0	0	7
NE	0	0	1	2	6	2	3	1	0	0	0	15
ENE	0	0	1	7	15	1	2	0	0	0	0	26
E	0	0	0	3	16	6	0	0	0	0	0	25
ESE	0	0	0	2	6	2	1	0	0	0	0	11
SE	0	0	0	2	0	1	2	0	0	0	0	5
SSE	0	0	0	0	0	0	3	0	0	0	0	3
S	0	0	0	2	3	0	0	1	0	0	0	6
SSW	0	0	0	1	1	6	4	4	2	0	0	18
SW	0	0	0	1	1	4	2	1	11	0	0	20
WSW	0	0	0	1	4	6	6	0	0	0	0	17
W	0	0	0	1	1	8	3	3	0	0	0	16
WNW	0	0	0	1	2	2	7	1	0	0	0	13
NW	0	0	0	1	4	3	2	0	0	0	0	10
NNW	0	0	0	2	1	2	0	2	0	0	0	7
Tot	0	0	4	29	71	46	35	13	13	0	0	211

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 211  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class B - Moderately Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	1	2	2	0	0	0	0	5
NNE	0	0	0	1	2	0	0	0	0	0	0	3
NE	0	0	1	0	2	2	0	0	0	0	0	5
ENE	0	0	0	1	4	1	0	0	0	0	0	6
E	0	0	0	1	4	1	0	0	0	0	0	6
ESE	0	0	0	0	2	1	1	1	0	0	0	5
SE	0	0	0	1	1	0	0	0	0	0	0	2
SSE	0	0	0	1	1	2	0	0	0	0	0	4
S	0	0	0	0	2	0	1	1	0	0	0	4
SSW	0	0	0	0	0	0	2	3	3	0	0	8
SW	0	0	0	0	0	1	1	1	2	0	0	5
WSW	0	0	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	4	1	2	0	0	0	0	7
WNW	0	0	0	0	2	6	2	3	0	0	0	13
NW	0	0	0	1	5	5	2	1	0	0	0	14
NNW	0	0	0	2	2	1	2	0	0	0	0	7
Tot	0	0	1	8	32	23	15	10	5	0	0	94

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 94  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class C - Slightly Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	1	4	1	1	0	0	0	0	7
NNE	0	0	1	2	2	2	0	0	0	0	0	7
NE	0	0	0	2	3	2	2	0	0	0	0	9
ENE	0	0	2	2	2	0	0	0	0	0	0	6
E	0	0	1	1	5	1	0	0	0	0	0	8
ESE	0	0	1	0	1	1	0	0	0	0	0	3
SE	0	0	0	0	0	0	1	1	0	0	0	2
SSE	0	0	0	0	1	1	2	0	0	0	0	4
S	0	0	0	0	2	0	1	0	0	0	0	3
SSW	0	0	0	0	2	0	1	0	1	0	0	4
SW	0	0	1	0	3	2	0	0	0	0	0	6
WSW	0	0	0	1	2	1	5	2	1	0	0	12
W	0	0	0	0	2	4	0	2	0	0	0	8
WNW	0	0	0	1	1	8	1	0	0	0	0	11
NW	0	0	0	1	4	6	1	1	0	0	0	13
NNW	0	0	1	0	2	2	1	0	0	0	0	6
Tot	0	0	7	11	36	31	16	6	2	0	0	109

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 109  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class D - Neutral

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	2	3	9	4	1	0	0	0	0	20
NNE	0	0	1	3	6	1	0	0	0	0	0	11
NE	0	0	6	5	15	11	1	1	0	0	0	39
ENE	0	0	4	11	21	6	0	0	0	0	0	42
E	0	1	6	3	21	8	2	0	0	0	0	41
ESE	0	0	3	2	11	4	6	0	0	0	0	26
SE	0	1	2	3	7	1	2	2	2	0	0	20
SSE	0	1	1	3	3	11	9	3	0	0	0	31
S	0	2	2	1	6	3	5	2	1	0	0	22
SSW	0	0	3	1	9	11	5	4	7	0	0	40
SW	0	0	1	4	6	7	6	3	4	0	0	31
WSW	0	0	2	6	6	8	3	3	2	0	0	30
W	0	1	0	2	8	4	4	2	5	2	0	28
WNW	0	1	5	3	13	14	6	4	2	1	0	49
NW	0	1	4	3	22	20	9	5	0	0	0	64
NNW	0	0	1	4	6	11	4	3	0	0	0	29
Tot	0	9	43	57	169	124	63	32	23	3	0	523

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 523  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class E - Slightly Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	9	15	8	1	0	0	0	0	0	34
NNE	0	1	5	14	11	10	1	0	1	0	0	43
NE	0	2	7	27	37	6	0	1	0	0	0	80
ENE	0	3	8	32	50	3	0	0	0	0	0	96
E	0	1	3	13	48	15	1	0	0	0	0	81
ESE	0	1	4	5	11	10	5	0	0	0	0	36
SE	0	2	4	4	10	11	6	10	0	0	0	47
SSE	0	2	2	8	17	3	7	5	0	0	0	44
S	0	2	9	4	22	5	11	1	1	0	0	55
SSW	0	3	1	9	11	17	16	5	2	0	0	64
SW	0	4	3	7	10	7	9	1	0	0	0	41
WSW	0	1	5	9	8	4	1	0	0	0	0	28
W	0	4	8	17	20	7	0	0	6	0	0	62
WNW	0	3	8	11	31	6	3	2	6	0	0	70
NW	0	2	12	15	22	13	3	1	1	0	0	69
NNW	0	0	8	9	24	16	1	0	1	0	0	59
Tot	0	32	96	199	340	134	64	26	18	0	0	909

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 910  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class F - Moderately Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	2	8	1	1	0	0	0	0	0	0	12
NNE	0	3	2	5	0	0	0	0	0	0	0	10
NE	0	1	4	2	0	0	0	0	0	0	0	7
ENE	0	3	0	0	0	0	0	0	0	0	0	3
E	0	0	0	0	1	0	0	0	0	0	0	1
ESE	0	0	4	3	2	2	0	0	0	0	0	11
SE	0	1	3	2	4	7	1	0	0	0	0	18
SSE	0	3	1	3	7	0	0	0	0	0	0	14
S	0	4	7	1	11	3	0	0	0	0	0	26
SSW	0	2	7	6	3	0	0	0	0	0	0	18
SW	0	1	12	21	9	2	0	0	0	0	0	45
WSW	0	2	11	5	2	0	0	0	0	0	0	20
W	0	3	5	8	0	0	0	0	0	0	0	16
WNW	0	3	10	6	3	1	0	0	0	0	0	23
NW	0	8	24	9	5	0	0	0	0	0	0	46
NNW	0	2	8	0	5	0	0	0	0	0	0	15
Tot	0	38	106	72	53	15	1	0	0	0	0	285

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 286  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class G - Extremely Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	3	0	0	0	0	0	0	0	0	3
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	2	1	0	0	0	0	0	3
SSE	0	1	0	0	0	0	0	0	0	0	0	1
S	0	0	0	2	0	0	0	0	0	0	0	2
SSW	0	0	1	2	0	0	0	0	0	0	0	3
SW	0	0	4	2	0	0	0	0	0	0	0	6
WSW	0	2	0	0	0	0	0	0	0	0	0	2
W	0	1	4	0	0	0	0	0	0	0	0	5
WNW	0	7	4	0	0	0	0	0	0	0	0	11
NW	0	3	12	3	0	0	0	0	0	0	0	18
NNW	0	2	13	4	1	0	0	0	0	0	0	20
Tot	0	16	41	13	3	1	0	0	0	0	0	74

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 74  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

All Stabilities

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	2	12	33	29	12	2	0	0	0	91
NNE	0	1	9	10	23	33	5	9	2	1	0	93
NE	0	0	10	27	70	47	22	7	3	0	0	186
ENE	0	1	7	27	94	62	15	1	0	0	0	207
E	0	6	8	12	38	41	50	17	3	0	0	175
ESE	0	0	6	10	14	13	15	22	3	0	0	83
SE	0	1	4	8	17	19	28	14	28	0	0	119
SSE	0	2	3	6	10	21	19	16	8	1	0	86
S	0	4	3	3	15	24	21	26	19	0	1	116
SSW	0	2	5	8	22	26	48	30	26	13	0	180
SW	0	2	3	8	18	16	22	8	26	16	0	119
WSW	0	1	3	5	28	33	17	10	11	1	0	109
W	0	1	3	7	27	39	31	18	12	9	8	155
WNW	0	2	6	5	27	36	43	26	17	4	3	169
NW	0	1	3	7	36	53	50	24	15	1	0	190
NNW	0	0	4	9	29	33	32	15	5	0	0	127
Tot	0	25	79	164	501	525	430	245	178	46	12	2205

Hours of Calm . . . . .	2
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	2207
Hours of Missing Data . . . . .	1
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class A - Extremely Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	0	3	6	2	0	0	0	0	11
NNE	0	0	0	0	5	3	0	0	0	0	0	8
NE	0	0	0	1	11	5	1	4	2	0	0	24
ENE	0	0	0	3	11	4	0	0	0	0	0	18
E	0	0	0	3	7	11	6	0	0	0	0	27
ESE	0	0	0	1	3	3	1	1	0	0	0	9
SE	0	0	0	1	0	0	1	2	0	0	0	4
SSE	0	0	0	1	0	1	1	1	0	0	0	4
S	0	0	0	1	3	1	1	0	1	0	0	7
SSW	0	0	0	0	0	3	6	6	5	2	0	22
SW	0	0	0	1	0	1	2	0	1	8	0	13
WSW	0	0	0	2	1	8	3	5	1	0	0	20
W	0	0	0	0	1	1	5	4	5	0	0	16
WNW	0	0	1	0	1	1	2	6	1	0	0	12
NW	0	0	0	1	3	2	2	1	0	0	0	9
NNW	0	0	0	1	2	1	1	0	2	0	0	7
Tot	0	0	1	16	51	51	34	30	18	10	0	211

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 211  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class B - Moderately Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	0	1	1	3	0	0	0	0	5
NNE	0	0	0	1	0	2	1	0	0	0	0	4
NE	0	0	0	1	0	1	1	0	0	0	0	3
ENE	0	0	0	0	5	2	1	0	0	0	0	8
E	0	0	0	0	2	4	0	0	0	0	0	6
ESE	0	0	0	1	0	0	1	1	1	0	0	4
SE	0	0	0	2	2	0	1	0	0	0	0	5
SSE	0	0	0	0	0	0	1	0	0	0	0	1
S	0	0	0	0	2	0	0	4	1	0	0	7
SSW	0	0	0	0	0	0	1	2	2	1	0	6
SW	0	0	0	0	0	1	0	0	1	2	0	4
WSW	0	0	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	3	2	1	2	1	0	0	9
WNW	0	0	0	0	1	2	2	2	3	0	0	10
NW	0	0	0	0	4	6	1	2	1	0	0	14
NNW	0	0	0	2	3	0	1	2	0	0	0	8
Tot	0	0	0	7	23	21	15	15	10	3	0	94

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	94
Hours of Missing Data . . . . .	1
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class C - Slightly Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	3	2	1	1	0	0	0	7
NNE	0	0	0	1	2	2	0	0	0	0	0	5
NE	0	0	0	1	3	3	2	1	0	0	0	10
ENE	0	0	0	2	4	2	0	0	0	0	0	8
E	0	0	0	1	3	2	1	0	0	0	0	7
ESE	0	0	0	1	1	0	0	0	0	0	0	2
SE	0	0	0	0	1	0	1	0	1	0	0	3
SSE	0	0	0	0	1	0	1	2	0	0	0	4
S	0	0	0	0	1	1	0	1	0	0	0	3
SSW	0	0	0	0	2	0	1	0	0	1	0	4
SW	0	0	0	2	2	1	1	1	1	1	0	9
WSW	0	0	0	0	3	1	1	3	2	0	0	10
W	0	0	0	0	1	1	6	0	2	0	0	10
WNW	0	0	0	0	2	2	2	2	1	0	0	9
NW	0	0	0	0	5	1	4	2	1	0	0	13
NNW	0	0	1	0	1	3	0	0	0	0	0	5
Tot	0	0	1	8	35	21	21	13	8	2	0	109

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 109  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class D - Neutral

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	5	5	9	2	1	0	0	0	22
NNE	0	0	2	3	1	4	0	0	0	0	0	10
NE	0	0	3	9	11	7	11	0	1	0	0	42
ENE	0	0	1	6	15	16	5	0	0	0	0	43
E	0	1	3	3	13	8	9	7	1	0	0	45
ESE	0	0	0	4	2	4	2	7	0	0	0	19
SE	0	0	1	1	5	5	3	2	5	0	0	22
SSE	0	1	1	3	1	6	8	8	1	0	0	29
S	0	1	2	1	2	6	2	3	4	0	0	21
SSW	0	0	4	3	5	6	7	7	5	7	0	44
SW	0	0	0	1	6	2	6	4	7	4	0	30
WSW	0	0	0	1	8	1	10	1	6	1	0	28
W	0	0	1	2	6	4	4	3	3	1	8	32
WNW	0	1	0	4	7	10	12	6	8	0	1	49
NW	0	1	3	2	7	14	16	8	8	1	0	60
NNW	0	0	1	2	5	5	5	6	3	0	0	27
Tot	0	5	22	50	99	107	102	63	52	14	9	523

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 523  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class E - Slightly Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	2	6	11	6	3	0	0	0	0	28
NNE	0	0	1	2	11	16	4	9	2	1	0	46
NE	0	0	3	6	34	31	7	2	0	0	0	83
ENE	0	0	2	9	57	38	9	1	0	0	0	116
E	0	2	3	1	10	16	34	10	2	0	0	78
ESE	0	0	1	3	7	5	10	12	0	0	0	38
SE	0	0	3	3	6	11	16	5	16	0	0	60
SSE	0	0	0	0	4	11	6	2	7	1	0	31
S	0	2	1	1	3	12	12	9	12	0	1	53
SSW	0	2	0	3	10	7	16	15	14	2	0	69
SW	0	0	2	3	5	5	8	2	14	1	0	40
WSW	0	0	1	1	5	11	2	1	2	0	0	23
W	0	1	1	5	8	17	14	8	1	8	0	63
WNW	0	0	4	0	9	15	20	7	4	4	2	65
NW	0	0	0	3	12	16	19	10	5	0	0	65
NNW	0	0	1	1	9	15	18	7	0	0	0	51
Tot	0	7	25	47	201	232	198	100	79	17	3	909

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 910  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class F - Moderately Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	6	3	1	0	0	0	0	10
NNE	0	0	2	2	4	6	0	0	0	0	0	14
NE	0	0	2	4	7	0	0	0	0	0	0	13
ENE	0	1	3	7	2	0	0	0	0	0	0	13
E	0	1	2	2	3	0	0	0	0	0	0	8
ESE	0	0	3	0	1	1	1	1	2	0	0	9
SE	0	1	0	1	3	3	5	4	5	0	0	22
SSE	0	1	2	2	3	3	2	3	0	0	0	16
S	0	1	0	0	2	4	4	9	1	0	0	21
SSW	0	0	1	1	5	9	14	0	0	0	0	30
SW	0	2	1	0	5	6	5	1	2	0	0	22
WSW	0	0	2	1	10	10	1	0	0	0	0	24
W	0	0	0	0	7	14	1	1	0	0	0	23
WNW	0	1	0	0	6	5	4	3	0	0	0	19
NW	0	0	0	0	4	9	6	1	0	0	0	20
NNW	0	0	1	2	5	8	6	0	0	0	0	22
Tot	0	8	19	22	73	81	50	23	10	0	0	286

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 286  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class G - Extremely Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	0	1	4	2	0	0	0	0	0	8
NNE	0	1	4	1	0	0	0	0	0	0	0	6
NE	0	0	2	5	4	0	0	0	0	0	0	11
ENE	0	0	1	0	0	0	0	0	0	0	0	1
E	0	2	0	2	0	0	0	0	0	0	0	4
ESE	0	0	2	0	0	0	0	0	0	0	0	2
SE	0	0	0	0	0	0	1	1	1	0	0	3
SSE	0	0	0	0	1	0	0	0	0	0	0	1
S	0	0	0	0	2	0	2	0	0	0	0	4
SSW	0	0	0	1	0	1	3	0	0	0	0	5
SW	0	0	0	1	0	0	0	0	0	0	0	1
WSW	0	1	0	0	1	2	0	0	0	0	0	4
W	0	0	1	0	1	0	0	0	0	0	0	2
WNW	0	0	1	1	1	1	1	0	0	0	0	5
NW	0	0	0	1	1	5	2	0	0	0	0	9
NNW	0	0	0	1	4	1	1	0	0	0	0	7
Tot	0	5	11	14	19	12	10	1	1	0	0	73

Hours of Calm . . . . .	1
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	74
Hours of Missing Data . . . . .	1
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

All Stabilities

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	1	2	3	7	17	18	11	17	14	0	0	90
NNE	0	2	1	11	12	24	14	7	6	3	0	80
NE	0	0	6	14	21	28	54	20	13	2	0	158
ENE	0	1	5	19	75	88	50	9	2	0	0	249
E	0	2	2	12	39	39	33	34	28	1	0	190
ESE	0	2	3	4	15	15	10	19	31	3	0	102
SE	0	0	2	8	9	10	22	19	31	9	0	110
SSE	0	3	3	5	6	9	25	14	11	6	1	83
S	0	2	4	4	10	12	17	16	31	13	0	109
SSW	0	2	2	3	8	7	21	24	51	34	6	158
SW	0	0	1	5	13	14	16	21	36	25	2	133
WSW	0	1	1	5	13	18	24	15	18	9	2	106
W	0	0	0	5	11	34	28	27	16	4	12	137
WNW	0	0	2	8	12	13	35	31	52	6	10	169
NW	0	1	3	7	16	29	46	49	46	6	2	205
NNW	0	1	3	6	16	23	21	27	29	1	0	127
Tot	1	19	41	123	293	381	427	349	415	122	35	2206

Hours of Calm . . . . .	1
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	2207
Hours of Missing Data . . . . .	1
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class A - Extremely Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)										Total	
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0		>10.00
N	0	0	0	1	0	0	0	0	0	0	0	1
NNE	0	0	0	0	3	2	0	0	0	0	0	5
NE	0	0	0	0	4	3	0	3	1	0	0	11
ENE	0	0	0	0	5	4	0	0	1	0	0	10
E	0	0	0	0	1	5	4	0	0	0	0	10
ESE	0	0	0	0	0	2	0	0	0	0	0	2
SE	0	0	0	1	0	0	0	1	0	0	0	2
SSE	0	0	0	0	0	0	1	1	0	0	0	2
S	0	0	0	0	1	2	0	0	0	0	0	3
SSW	0	0	0	0	0	0	1	2	1	0	0	4
SW	0	0	0	0	0	0	1	0	1	3	0	5
WSW	0	0	0	1	0	2	0	1	2	0	0	6
W	0	0	0	0	0	2	3	2	1	0	0	8
WNW	0	0	0	0	0	0	1	0	4	0	0	5
NW	0	0	0	0	0	0	0	1	1	0	0	2
NNW	0	0	0	0	2	1	0	0	0	0	0	3
Tot	0	0	0	3	16	23	11	11	12	3	0	79

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	79
Hours of Missing Data . . . . .	1
Hours in Period . . . . .	2208



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class B - Moderately Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)										Total	
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0		>10.00
N	0	0	0	1	3	4	3	1	0	0	0	12
NNE	0	0	0	1	2	2	0	0	0	0	0	5
NE	0	0	0	3	3	0	1	0	0	0	0	7
ENE	0	0	0	2	5	4	1	0	0	0	0	12
E	0	0	0	2	7	8	3	2	0	0	0	22
ESE	0	0	0	1	0	1	0	1	0	0	0	3
SE	0	0	0	2	1	0	1	1	0	0	0	5
SSE	0	0	0	0	1	0	1	2	0	0	0	4
S	0	0	0	2	3	1	0	0	2	0	0	8
SSW	0	0	0	0	0	1	4	2	7	1	0	15
SW	0	0	0	0	1	1	3	1	0	5	1	12
WSW	0	0	0	1	0	3	3	2	2	0	0	11
W	0	0	0	0	0	1	2	3	2	1	0	9
WNW	0	0	0	0	2	1	1	3	5	1	0	13
NW	0	0	0	0	1	5	4	1	1	0	0	12
NNW	0	0	0	0	3	0	2	0	2	0	0	7
Tot	0	0	0	15	32	32	29	19	21	8	1	157

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	157
Hours of Missing Data . . . . .	1
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class C - Slightly Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	3	4	1	1	0	0	0	9
NNE	0	0	0	1	2	3	1	0	0	0	0	7
NE	0	0	0	1	2	2	4	2	1	0	0	12
ENE	0	0	2	3	8	1	1	0	0	0	0	15
E	0	0	1	5	7	5	2	0	0	0	0	20
ESE	0	0	0	1	1	1	1	2	1	0	0	7
SE	0	0	0	0	0	0	1	0	2	0	0	3
SSE	0	0	0	0	0	0	3	2	2	0	0	7
S	0	0	0	1	2	2	0	1	2	0	0	8
SSW	0	0	0	0	1	1	1	3	0	4	0	10
SW	0	0	0	1	1	2	2	2	2	3	0	13
WSW	0	0	0	0	3	1	1	1	6	0	1	13
W	0	0	0	0	2	4	3	3	0	2	1	15
WNW	0	0	1	0	2	2	10	3	4	0	1	23
NW	0	0	2	1	3	6	5	5	4	0	0	26
NNW	0	0	0	2	3	3	1	3	1	0	0	13
Tot	0	0	6	16	40	37	37	28	25	9	3	201

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 201  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class D - Neutral

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	2	5	4	4	4	2	0	0	21
NNE	0	1	1	5	3	10	6	0	0	0	0	26
NE	0	0	5	4	3	13	9	7	1	1	0	43
ENE	0	0	1	7	26	39	29	6	1	0	0	109
E	0	0	0	2	11	12	11	19	7	0	0	62
ESE	0	0	2	1	5	5	4	9	8	0	0	34
SE	0	0	1	3	4	5	8	3	8	1	0	33
SSE	0	1	0	3	0	3	10	4	7	4	0	32
S	0	1	3	0	3	3	5	1	6	3	0	25
SSW	0	2	1	1	3	2	8	6	11	7	3	44
SW	0	0	1	1	5	5	5	8	9	6	0	40
WSW	0	0	0	3	6	4	7	5	6	2	1	34
W	0	0	0	3	4	6	6	3	7	1	11	41
WNW	0	0	0	6	4	7	8	11	13	5	7	61
NW	0	0	1	3	7	7	20	17	19	3	0	77
NNW	0	1	3	3	5	6	9	9	10	1	0	47
Tot	0	6	19	47	94	131	149	112	115	34	22	729

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 729  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class E - Slightly Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	2	1	2	4	1	6	4	0	0	21
NNE	0	1	0	3	0	2	5	4	2	3	0	20
NE	0	0	0	6	4	8	29	8	10	0	0	65
ENE	0	0	2	3	22	36	19	3	0	0	0	85
E	0	2	0	3	7	4	12	13	21	1	0	63
ESE	0	1	1	0	6	1	4	7	22	2	0	44
SE	0	0	1	2	2	5	10	10	15	6	0	51
SSE	0	0	2	0	3	5	10	4	1	2	1	28
S	0	0	1	1	0	1	6	12	13	8	0	42
SSW	0	0	1	0	2	1	4	8	19	18	3	56
SW	0	0	0	1	5	5	4	9	14	8	1	47
WSW	0	1	0	0	4	5	9	3	1	7	0	30
W	0	0	0	2	4	14	10	10	6	0	0	46
WNW	0	0	1	0	3	3	10	12	19	0	2	50
NW	0	0	0	2	4	7	12	15	16	1	2	59
NNW	0	0	0	0	0	7	5	10	8	0	0	30
Tot	0	6	11	24	68	108	150	134	171	56	9	737

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	737
Hours of Missing Data . . . . .	1
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class F - Moderately Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	1	0	1	0	2	2	1	5	5	0	0	17
NNE	0	0	0	0	2	5	2	3	3	0	0	15
NE	0	0	0	0	5	2	11	0	0	1	0	19
ENE	0	1	0	3	8	4	0	0	0	0	0	16
E	0	0	1	0	5	5	1	0	0	0	0	12
ESE	0	0	0	1	2	5	1	0	0	1	0	10
SE	0	0	0	0	1	0	2	4	6	2	0	15
SSE	0	2	1	2	2	1	0	1	1	0	0	10
S	0	1	0	0	1	3	4	1	8	2	0	20
SSW	0	0	0	1	2	2	3	3	13	4	0	28
SW	0	0	0	2	1	1	1	1	10	0	0	16
WSW	0	0	1	0	0	3	4	3	1	0	0	12
W	0	0	0	0	1	7	4	6	0	0	0	18
WNW	0	0	0	2	1	0	5	2	7	0	0	17
NW	0	1	0	1	1	4	5	10	5	2	0	29
NNW	0	0	0	1	3	5	2	2	6	0	0	19
Tot	1	5	4	13	37	49	46	41	65	12	0	273

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 274  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: July through September 2009

Stability Class G - Extremely Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	0	2	2	0	1	0	3	0	0	9
NNE	0	0	0	1	0	0	0	0	1	0	0	2
NE	0	0	1	0	0	0	0	0	0	0	0	1
ENE	0	0	0	1	1	0	0	0	0	0	0	2
E	0	0	0	0	1	0	0	0	0	0	0	1
ESE	0	1	0	0	1	0	0	0	0	0	0	2
SE	0	0	0	0	1	0	0	0	0	0	0	1
SSE	0	0	0	0	0	0	0	0	0	0	0	0
S	0	0	0	0	0	0	2	1	0	0	0	3
SSW	0	0	0	1	0	0	0	0	0	0	0	1
SW	0	0	0	0	0	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	1	2	3	2	0	0	8
Tot	0	2	1	5	6	1	5	4	6	0	0	30

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 30  
Hours of Missing Data . . . . . 1  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

All Stabilities

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	4	6	5	12	18	15	2	2	0	0	64
NNE	0	0	2	1	17	17	16	2	2	0	0	57
NE	1	2	6	5	20	24	8	3	1	0	0	70
ENE	0	4	8	6	27	30	33	4	0	0	0	112
E	0	2	5	10	35	39	22	26	21	1	0	161
ESE	0	4	3	17	49	27	9	7	17	5	0	138
SE	0	1	11	9	19	30	37	17	13	2	0	139
SSE	0	5	12	11	61	43	34	11	21	3	0	201
S	0	3	16	17	52	48	34	19	20	6	0	215
SSW	0	3	6	12	31	30	25	12	17	0	0	136
SW	0	4	7	23	32	26	29	13	22	7	0	163
WSW	0	6	3	10	23	21	22	22	22	2	5	136
W	0	4	9	11	38	30	49	29	31	12	4	217
WNW	0	3	8	17	47	28	27	17	11	1	0	159
NW	0	4	11	9	31	29	11	17	17	0	0	129
NNW	0	5	3	5	16	22	23	17	5	0	0	96
Tot	1	54	116	168	510	462	394	218	222	39	9	2193

Hours of Calm . . . . .	2
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	2195
Hours of Missing Data . . . . .	13
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class A - Extremely Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	1	0	1	1	0	0	0	3
NNE	0	0	0	0	0	0	1	0	0	0	0	1
NE	0	0	0	0	0	2	0	0	0	0	0	2
ENE	0	0	0	0	2	1	0	0	0	0	0	3
E	0	0	0	0	0	1	0	0	0	0	0	1
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0	0	0	0	0	0
SSW	0	0	0	1	0	0	0	0	2	0	0	3
SW	0	0	0	0	0	1	3	1	1	0	0	6
WSW	0	0	0	0	0	5	8	6	4	0	0	23
W	0	0	0	0	1	1	3	0	3	0	0	8
WNW	0	0	0	0	0	0	2	1	0	0	0	3
NW	0	0	0	0	0	0	0	1	3	0	0	4
NNW	0	0	0	0	1	1	1	0	0	0	0	3
Tot	0	0	0	1	5	12	19	10	13	0	0	60

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 60  
Hours of Missing Data . . . . . 13  
Hours in Period . . . . . 2208



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class B - Moderately Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	0	0	0	1	0	0	0	0	1
NNE	0	0	0	0	0	0	1	0	0	0	0	1
NE	0	0	1	0	0	0	0	0	0	0	0	1
ENE	0	0	0	0	1	0	0	0	0	0	0	1
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	1	0	1	1	0	0	0	0	3
SSE	0	0	0	0	0	0	1	0	0	0	0	1
S	0	0	0	0	1	0	0	0	0	0	0	1
SSW	0	0	0	0	0	4	0	0	1	0	0	5
SW	0	0	0	0	0	0	0	0	1	1	0	2
WSW	0	0	0	0	1	0	4	1	1	0	0	7
W	0	0	0	0	4	1	2	0	0	0	0	7
WNW	0	0	0	0	0	1	1	0	1	0	0	3
NW	0	0	1	0	1	0	0	1	1	0	0	4
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	0	2	1	8	7	11	2	5	1	0	37

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	37
Hours of Missing Data . . . . .	13
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class C - Slightly Unstable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	1	1	0	0	0	0	0	2
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	1	1	0	0	0	0	0	2
ENE	0	0	1	0	0	0	0	0	0	0	0	1
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	1	0	0	0	0	0	1
SSE	0	0	1	0	2	1	3	0	0	1	0	8
S	0	0	0	0	1	1	0	0	0	0	0	2
SSW	0	0	0	0	0	2	1	1	0	0	0	4
SW	0	0	1	1	0	0	0	0	1	1	0	4
WSW	0	0	0	0	0	1	0	0	0	0	0	1
W	0	0	0	0	1	0	0	0	2	0	0	3
WNW	0	0	0	0	0	2	2	0	0	0	0	4
NW	0	0	0	0	0	0	0	0	1	0	0	1
NNW	0	0	0	0	1	0	0	0	0	0	0	1
Tot	0	0	3	1	7	10	6	1	4	2	0	34

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	34
Hours of Missing Data . . . . .	13
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class D - Neutral

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	1	2	2	3	13	12	1	2	0	0	36
NNE	0	0	1	0	8	8	12	1	2	0	0	32
NE	0	0	0	2	8	11	4	2	1	0	0	28
ENE	0	1	3	1	7	12	23	3	0	0	0	50
E	0	0	2	2	10	21	15	18	14	0	0	82
ESE	0	0	1	1	8	3	2	2	6	5	0	28
SE	0	0	1	1	5	5	11	2	6	1	0	32
SSE	0	1	1	1	16	13	15	5	9	2	0	63
S	0	0	2	4	10	17	11	12	11	3	0	70
SSW	0	1	1	4	8	10	16	5	6	0	0	51
SW	0	2	0	7	9	7	10	6	12	4	0	57
WSW	0	1	2	2	10	7	9	11	12	0	5	59
W	0	1	1	7	20	13	29	28	21	10	4	134
WNW	0	1	5	8	23	16	14	15	10	0	0	92
NW	0	1	3	3	4	7	8	13	11	0	0	50
NNW	0	1	0	2	2	10	19	17	5	0	0	56
Tot	0	11	25	47	151	173	210	141	128	25	9	920

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	920
Hours of Missing Data . . . . .	13
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class E - Slightly Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	1	2	1	6	4	1	0	0	0	0	15
NNE	0	0	1	1	6	6	2	1	0	0	0	17
NE	1	1	5	3	9	9	4	1	0	0	0	33
ENE	0	1	3	5	16	17	10	1	0	0	0	53
E	0	1	2	6	23	16	7	8	7	1	0	71
ESE	0	2	1	10	30	23	7	5	11	0	0	89
SE	0	0	3	4	10	20	24	15	7	1	0	84
SSE	0	4	6	9	37	29	15	6	12	0	0	118
S	0	2	7	11	32	24	22	7	9	3	0	117
SSW	0	0	2	5	15	11	8	6	8	0	0	55
SW	0	2	3	6	13	10	15	6	7	1	0	63
WSW	0	1	0	5	10	7	1	4	5	2	0	35
W	0	0	1	3	11	15	15	1	5	2	0	53
WNW	0	0	0	7	24	7	8	1	0	1	0	48
NW	0	1	5	4	19	21	3	2	1	0	0	56
NNW	0	3	1	2	10	11	3	0	0	0	0	30
Tot	1	19	42	82	271	230	145	64	72	11	0	937

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 938  
Hours of Missing Data . . . . . 13  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class F - Moderately Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	2	2	2	1	0	0	0	0	0	0	7
NNE	0	0	0	0	2	3	0	0	0	0	0	5
NE	0	1	0	0	2	1	0	0	0	0	0	4
ENE	0	1	1	0	1	0	0	0	0	0	0	3
E	0	0	1	2	2	1	0	0	0	0	0	6
ESE	0	1	0	4	11	1	0	0	0	0	0	17
SE	0	1	7	2	3	3	1	0	0	0	0	17
SSE	0	0	4	1	6	0	0	0	0	0	0	11
S	0	1	5	1	8	6	1	0	0	0	0	22
SSW	0	2	0	1	8	3	0	0	0	0	0	14
SW	0	0	3	4	9	8	1	0	0	0	0	25
WSW	0	3	1	2	2	1	0	0	0	0	0	9
W	0	3	7	1	1	0	0	0	0	0	0	12
WNW	0	2	3	2	0	2	0	0	0	0	0	9
NW	0	1	2	2	7	1	0	0	0	0	0	13
NNW	0	0	2	0	1	0	0	0	0	0	0	3
Tot	0	18	38	24	64	30	3	0	0	0	0	177

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 178  
Hours of Missing Data . . . . . 13  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class G - Extremely Stable

Elevations: Winds 35ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	0	0	0	0	0	0	0	0	0
NNE	0	0	0	0	1	0	0	0	0	0	0	1
NE	0	0	0	0	0	0	0	0	0	0	0	0
ENE	0	1	0	0	0	0	0	0	0	0	0	1
E	0	1	0	0	0	0	0	0	0	0	0	1
ESE	0	1	1	2	0	0	0	0	0	0	0	4
SE	0	0	0	1	1	0	0	0	0	0	0	2
SSE	0	0	0	0	0	0	0	0	0	0	0	0
S	0	0	2	1	0	0	0	0	0	0	0	3
SSW	0	0	3	1	0	0	0	0	0	0	0	4
SW	0	0	0	5	1	0	0	0	0	0	0	6
WSW	0	1	0	1	0	0	0	0	0	0	0	2
W	0	0	0	0	0	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0	0	0	0	0	0
NW	0	1	0	0	0	0	0	0	0	0	0	1
NNW	0	1	0	1	1	0	0	0	0	0	0	3
Tot	0	6	6	12	4	0	0	0	0	0	0	28

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	28
Hours of Missing Data . . . . .	13
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

All Stabilities

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	2	3	7	7	15	18	5	2	0	59
NNE	0	0	4	2	9	8	19	19	4	1	0	66
NE	0	0	0	5	9	20	19	19	10	1	0	83
ENE	0	2	6	5	15	21	20	23	7	0	0	99
E	0	2	5	2	14	15	30	19	38	12	7	144
ESE	0	0	4	6	8	22	30	10	14	4	3	101
SE	0	2	0	3	13	26	32	34	35	8	2	155
SSE	0	1	5	5	14	31	45	25	28	18	2	174
S	0	0	2	6	22	37	43	33	39	12	6	200
SSW	0	1	3	6	12	38	46	30	26	16	3	181
SW	0	4	4	5	9	18	23	22	44	15	12	156
WSW	0	2	4	4	8	24	26	26	27	23	9	153
W	0	0	2	10	20	27	26	40	52	21	20	218
WNW	0	0	3	7	17	30	29	25	31	10	0	152
NW	0	0	4	3	6	19	27	21	28	10	0	118
NNW	0	0	1	3	5	11	20	28	22	2	0	92
Tot	0	14	49	75	188	354	450	392	410	155	64	2151

Hours of Calm . . . . .	1
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	2152
Hours of Missing Data . . . . .	56
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class A - Extremely Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	1	0	0	2	0	0	0	3
NNE	0	0	0	0	0	0	0	1	0	0	0	1
NE	0	0	0	0	0	1	1	0	0	0	0	2
ENE	0	0	0	0	0	2	0	0	0	0	0	2
E	0	0	0	0	1	0	1	0	0	0	0	2
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0	0	0	0	0	0
SSW	0	0	0	1	0	0	0	0	0	3	0	4
SW	0	0	0	0	0	1	0	4	0	0	0	5
WSW	0	0	0	0	0	3	6	5	8	3	0	25
W	0	0	0	0	1	0	1	2	0	2	0	6
WNW	0	0	0	0	0	0	1	1	1	0	0	3
NW	0	0	0	0	0	1	0	0	4	0	0	5
NNW	0	0	0	0	1	0	0	1	0	0	0	2
Tot	0	0	0	1	4	8	10	16	13	8	0	60

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 60  
Hours of Missing Data . . . . . 56  
Hours in Period . . . . . 2208



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class B - Moderately Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	2	0	0	0	2
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	1	0	0	0	0	0	1
ENE	0	0	0	1	0	0	0	0	0	0	0	1
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	1	0	1	1	0	0	0	0	3
SSE	0	0	0	0	0	0	1	0	0	0	0	1
S	0	0	0	0	0	1	0	0	0	0	0	1
SSW	0	0	0	0	0	1	3	0	0	1	0	5
SW	0	0	0	0	0	0	0	0	0	2	0	2
WSW	0	0	0	0	1	0	0	4	1	1	0	7
W	0	0	0	0	2	3	2	1	0	1	0	9
WNW	0	0	0	0	0	0	1	0	0	0	0	1
NW	0	0	1	0	0	1	0	0	1	1	0	4
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	0	1	2	3	8	8	7	2	6	0	37

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 37  
Hours of Missing Data . . . . . 56  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class C - Slightly Unstable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	1	0	0	0	0	1
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	1	1	0	0	0	0	2
ENE	0	0	0	0	0	0	0	0	0	0	0	0
E	0	0	1	0	0	0	0	0	0	0	0	1
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	1	1	0	0	0	0	2
SSE	0	0	1	0	1	0	3	1	0	0	1	7
S	0	0	0	0	1	0	2	0	0	0	0	3
SSW	0	0	0	0	0	0	2	1	0	0	0	3
SW	0	0	1	1	0	0	0	0	1	0	1	4
WSW	0	0	0	0	0	1	0	0	0	0	0	1
W	0	0	0	0	1	0	1	1	0	2	0	5
WNW	0	0	0	0	0	0	1	0	1	0	0	2
NW	0	0	0	0	0	0	0	0	1	0	0	1
NNW	0	0	0	0	0	2	0	0	0	0	0	2
Tot	0	0	3	1	3	5	12	3	3	2	2	34

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 34  
Hours of Missing Data . . . . . 56  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class D - Neutral

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	1	1	3	3	11	11	5	2	0	37
NNE	0	0	1	1	4	6	11	8	2	1	0	34
NE	0	0	0	0	5	5	7	7	5	1	0	30
ENE	0	1	2	1	5	6	10	17	6	0	0	48
E	0	0	2	1	3	7	13	9	24	8	5	72
ESE	0	0	1	1	3	5	4	1	2	2	3	22
SE	0	2	0	1	1	7	6	10	6	2	1	36
SSE	0	0	1	3	3	17	9	8	11	6	1	59
S	0	0	0	2	6	11	9	10	15	4	3	60
SSW	0	0	2	2	4	9	15	15	11	6	2	66
SW	0	2	0	1	8	6	5	7	11	8	6	54
WSW	0	2	2	2	3	10	5	9	13	15	7	68
W	0	0	1	3	10	15	9	26	40	15	14	133
WNW	0	0	1	5	9	16	15	12	19	10	0	87
NW	0	0	1	2	1	4	3	5	17	9	0	42
NNW	0	0	1	2	2	1	9	18	22	2	0	57
Tot	0	7	16	28	70	128	141	173	209	91	42	905

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 906  
Hours of Missing Data . . . . . 56  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class E - Slightly Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)										Total	
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0		>10.00
N	0	0	1	2	1	4	2	3	0	0	0	13
NNE	0	0	3	1	2	1	5	7	2	0	0	21
NE	0	0	0	2	4	9	9	12	5	0	0	41
ENE	0	1	4	2	10	11	10	6	1	0	0	45
E	0	2	2	1	9	7	15	7	14	4	2	63
ESE	0	0	2	4	1	14	24	9	11	2	0	67
SE	0	0	0	0	8	12	18	20	28	6	1	93
SSE	0	1	1	2	8	13	31	16	17	12	0	101
S	0	0	2	4	12	19	26	20	20	8	3	114
SSW	0	1	1	2	7	21	16	9	15	6	1	79
SW	0	0	2	1	1	10	11	6	23	5	5	64
WSW	0	0	0	0	1	5	9	7	5	4	2	33
W	0	0	0	1	1	8	13	10	12	1	6	52
WNW	0	0	0	0	5	13	11	12	8	0	0	49
NW	0	0	2	0	1	8	20	14	5	0	0	50
NNW	0	0	0	1	1	7	11	7	0	0	0	27
Tot	0	5	20	23	72	162	231	165	166	48	20	912

Hours of Calm . . . . .	0
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	912
Hours of Missing Data . . . . .	56
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class F - Moderately Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	2	0	1	0	0	0	0	3
NNE	0	0	0	0	3	0	3	3	0	0	0	9
NE	0	0	0	3	0	2	1	0	0	0	0	6
ENE	0	0	0	0	0	1	0	0	0	0	0	1
E	0	0	0	0	1	1	1	3	0	0	0	6
ESE	0	0	0	1	3	3	2	0	1	0	0	10
SE	0	0	0	1	2	5	5	4	1	0	0	18
SSE	0	0	2	0	1	1	1	0	0	0	0	5
S	0	0	0	0	3	5	6	3	4	0	0	21
SSW	0	0	0	1	1	6	8	5	0	0	0	21
SW	0	0	1	2	0	0	6	4	9	0	0	22
WSW	0	0	0	1	0	5	5	1	0	0	0	12
W	0	0	0	6	4	1	0	0	0	0	0	11
WNW	0	0	2	2	3	1	0	0	2	0	0	10
NW	0	0	0	1	4	5	4	2	0	0	0	16
NNW	0	0	0	0	1	1	0	2	0	0	0	4
Tot	0	0	5	18	28	37	43	27	17	0	0	175

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 175  
Hours of Missing Data . . . . . 56  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class G - Extremely Stable

Elevations: Winds 150ft      Stability 150ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	0	0	0	0	0
NNE	0	0	0	0	0	1	0	0	0	0	0	1
NE	0	0	0	0	0	1	0	0	0	0	0	1
ENE	0	0	0	1	0	1	0	0	0	0	0	2
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	1	0	1	0	0	0	0	0	0	2
SE	0	0	0	0	2	0	1	0	0	0	0	3
SSE	0	0	0	0	1	0	0	0	0	0	0	1
S	0	0	0	0	0	1	0	0	0	0	0	1
SSW	0	0	0	0	0	1	2	0	0	0	0	3
SW	0	2	0	0	0	1	1	1	0	0	0	5
WSW	0	0	2	1	3	0	1	0	0	0	0	7
W	0	0	1	0	1	0	0	0	0	0	0	2
WNW	0	0	0	0	0	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	2	4	2	8	6	5	1	0	0	0	28

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 28  
Hours of Missing Data . . . . . 56  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

All Stabilities

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)										Total	
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0		>10.00
N	0	1	0	2	6	4	9	15	26	2	0	65
NNE	0	0	2	2	4	4	13	12	11	2	1	51
NE	0	0	1	2	3	4	14	12	16	7	1	60
ENE	0	1	3	2	9	24	28	26	38	2	0	133
E	0	0	7	4	4	14	18	28	26	25	8	134
ESE	0	2	2	4	9	4	5	8	23	15	3	75
SE	0	1	1	2	6	12	18	26	50	15	4	135
SSE	0	0	3	4	11	23	31	40	40	27	10	189
S	0	0	0	2	10	16	22	33	51	21	17	172
SSW	0	1	2	6	1	14	26	45	50	29	8	182
SW	0	1	3	1	7	13	19	26	37	35	15	157
WSW	0	3	1	2	6	13	19	29	30	26	20	149
W	0	0	1	2	21	24	19	25	65	26	25	208
WNW	0	1	0	1	11	14	24	23	33	21	6	134
NW	0	0	2	2	6	8	11	17	41	23	5	115
NNW	0	0	2	1	2	3	12	22	44	11	0	97
Tot	0	11	30	39	116	194	288	387	581	287	123	2056

Hours of Calm . . . . .	1
Hours of Variable Direction . . . . .	0
Hours of Valid Data . . . . .	2057
Hours of Missing Data . . . . .	151
Hours in Period . . . . .	2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class A - Extremely Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	1	0	0	0	0	1
ENE	0	0	0	0	0	1	0	0	0	0	0	1
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0	0	0	1	0	1
WSW	0	0	0	0	0	0	1	1	4	0	0	6
W	0	0	0	0	0	0	0	0	1	0	0	1
WNW	0	0	0	0	0	0	0	1	1	0	0	2
NW	0	0	0	0	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	0	0	0	0	1	2	2	6	1	0	12

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 12  
Hours of Missing Data . . . . . 151  
Hours in Period . . . . . 2208



DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class B - Moderately Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5- 1.0	1.1- 1.5	1.6- 2.0	2.1- 3.0	3.1- 4.0	4.1- 5.0	5.1- 6.0	6.1- 8.0	8.1- 10.0	>10.00	
N	0	0	0	0	1	0	0	1	1	0	0	3
NNE	0	0	0	0	0	0	0	0	1	0	0	1
NE	0	0	0	0	0	0	0	0	0	0	0	0
ENE	0	0	0	0	0	2	0	0	0	0	0	2
E	0	0	0	0	0	1	0	1	0	0	0	2
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	2	1	2	0	0	1	6
S	0	0	0	0	0	0	0	0	0	0	2	2
SSW	0	0	0	1	0	0	2	0	0	2	0	5
SW	0	0	0	0	0	0	0	2	2	1	1	6
WSW	0	0	0	0	1	3	3	4	5	2	1	19
W	0	0	0	0	2	2	0	2	1	2	1	10
WNW	0	0	0	0	0	0	1	1	0	0	0	2
NW	0	0	1	0	0	0	0	0	1	2	0	4
NNW	0	0	0	0	1	0	1	1	0	0	0	3
Tot	0	0	1	1	5	10	8	14	11	9	6	65

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 65  
Hours of Missing Data . . . . . 151  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class C - Slightly Unstable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	1	0	0	0	0	0	1
NNE	0	0	0	1	0	0	0	1	0	0	0	2
NE	0	0	1	0	0	1	1	0	0	0	0	3
ENE	0	0	0	0	0	1	0	0	0	0	0	1
E	0	0	1	0	0	0	0	0	0	0	0	1
ESE	0	0	0	0	0	0	0	0	0	0	0	0
SE	0	0	0	1	0	0	1	0	0	0	0	2
SSE	0	0	1	0	2	3	3	0	2	0	0	11
S	0	0	0	0	1	0	1	0	0	0	1	3
SSW	0	0	0	1	0	1	3	2	1	1	0	9
SW	0	0	1	0	0	1	1	0	1	1	1	6
WSW	0	0	0	0	0	1	0	2	1	1	0	5
W	0	0	0	0	1	2	1	1	0	2	1	8
WNW	0	0	0	0	0	0	2	2	2	1	0	7
NW	0	0	0	0	0	1	0	0	2	1	0	4
NNW	0	0	0	0	0	0	0	0	0	0	0	0
Tot	0	0	4	3	4	12	13	8	9	7	3	63
Hours of Calm . . . . .												0
Hours of Variable Direction . . . . .												0
Hours of Valid Data . . . . .												63
Hours of Missing Data . . . . .												151
Hours in Period . . . . .												2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class D - Neutral

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	1	0	1	5	2	7	11	20	2	0	49
NNE	0	0	1	1	4	4	12	10	8	2	1	43
NE	0	0	0	2	3	2	10	10	6	2	1	36
ENE	0	1	2	1	9	13	22	23	37	2	0	110
E	0	0	3	3	4	12	14	24	21	24	8	113
ESE	0	2	1	1	5	2	4	6	7	3	2	33
SE	0	1	0	0	2	5	6	9	17	7	3	50
SSE	0	0	1	1	4	10	17	14	10	12	7	76
S	0	0	0	2	7	9	14	20	21	8	3	84
SSW	0	1	2	2	0	5	12	24	12	8	6	72
SW	0	1	1	1	4	5	10	10	7	18	12	69
WSW	0	3	1	1	3	5	7	9	10	20	18	77
W	0	0	1	2	8	16	10	13	51	21	21	143
WNW	0	1	0	1	9	12	18	12	23	16	4	96
NW	0	0	0	2	3	3	7	7	21	16	5	64
NNW	0	0	1	1	0	2	5	11	33	11	0	64
Tot	0	11	14	22	70	107	175	213	304	172	91	1179

Hours of Calm . . . . . 1  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 1180  
Hours of Missing Data . . . . . 151  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class E - Slightly Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	2	3	5	0	0	10
NNE	0	0	1	0	0	0	1	0	2	0	0	4
NE	0	0	0	0	0	1	2	2	8	3	0	16
ENE	0	0	1	1	0	4	3	1	1	0	0	11
E	0	0	2	1	0	1	3	3	4	1	0	15
ESE	0	0	1	3	1	2	1	1	13	11	0	33
SE	0	0	1	0	2	6	10	16	28	7	1	71
SSE	0	0	0	1	3	7	8	20	24	13	2	78
S	0	0	0	0	2	6	7	13	29	12	11	80
SSW	0	0	0	1	1	5	7	18	30	15	2	79
SW	0	0	0	0	2	1	6	9	17	13	1	49
WSW	0	0	0	0	1	2	6	12	6	3	1	31
W	0	0	0	0	1	2	8	5	12	1	2	31
WNW	0	0	0	0	0	1	3	7	7	3	1	22
NW	0	0	1	0	0	2	2	10	14	3	0	32
NNW	0	0	1	0	1	0	0	6	7	0	0	15
Tot	0	0	8	7	14	40	69	126	207	85	21	577

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 577  
Hours of Missing Data . . . . . 151  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class F - Moderately Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	1	0	1	0	0	0	0	0	2
NNE	0	0	0	0	0	0	0	1	0	0	0	1
NE	0	0	0	0	0	0	0	0	2	2	0	4
ENE	0	0	0	0	0	2	2	2	0	0	0	6
E	0	0	1	0	0	0	1	0	1	0	0	3
ESE	0	0	0	0	3	0	0	0	3	1	1	8
SE	0	0	0	1	2	1	1	1	5	1	0	12
SSE	0	0	1	2	2	1	1	4	3	2	0	16
S	0	0	0	0	0	1	0	0	1	1	0	3
SSW	0	0	0	1	0	0	2	0	7	3	0	13
SW	0	0	1	0	0	3	1	5	9	1	0	20
WSW	0	0	0	1	1	2	2	1	3	0	0	10
W	0	0	0	0	7	2	0	4	0	0	0	13
WNW	0	0	0	0	2	1	0	0	0	1	1	5
NW	0	0	0	0	3	2	2	0	3	1	0	11
NNW	0	0	0	0	0	1	4	4	4	0	0	13
Tot	0	0	3	6	20	17	16	22	41	13	2	140

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 140  
Hours of Missing Data . . . . . 151  
Hours in Period . . . . . 2208

DRESDEN NUCLEAR POWER STATION  
2009 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

METEOROLOGICAL DATA

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

Period: October through December 2009

Stability Class G - Extremely Stable

Elevations: Winds 300ft      Stability 300ft

Wind Direction Sector	Wind Speed Range (m/s)											Total
	<0.50	0.5-1.0	1.1-1.5	1.6-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	6.1-8.0	8.1-10.0	>10.00	
N	0	0	0	0	0	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0	0	0	0	0	0
ENE	0	0	0	0	0	1	1	0	0	0	0	2
E	0	0	0	0	0	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0	1	0	0	0	1
SE	0	0	0	0	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	1	0	1	0	0	2
S	0	0	0	0	0	0	0	0	0	0	0	0
SSW	0	0	0	0	0	3	0	1	0	0	0	4
SW	0	0	0	0	1	3	1	0	1	0	0	6
WSW	0	0	0	0	0	0	0	0	1	0	0	1
W	0	0	0	0	2	0	0	0	0	0	0	2
WNW	0	0	0	0	0	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	2	0	0	0	0	2
Tot	0	0	0	0	3	7	5	2	3	0	0	20

Hours of Calm . . . . . 0  
Hours of Variable Direction . . . . . 0  
Hours of Valid Data . . . . . 20  
Hours of Missing Data . . . . . 151  
Hours in Period . . . . . 2208