



Dresden Nuclear Power Station
6500 North Dresden Road
Morris, IL 60450

10 CFR 50.36a (a)(2)

June 28, 2018

SVPLTR: #18-0020

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

Dresden Nuclear Power Station, Units 1, 2 and 3
Facility Operating License No. DPR-2
Renewed Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-010, 50-237, and 50-249

Subject: Corrected Dresden Nuclear Power Station 2017 Radioactive Effluent Release Report

The Radioactive Effluent Release Report for January through December 2017 for Dresden Nuclear Power Station (DNPS) is submitted in accordance with Sections 6.9.A.4 and 5.6.3, "Radioactive Effluent Release Report," of the DNPS Unit 1 and Units 2 and 3 Technical Specifications, respectively and 10 CFR 50.36a (a)(2), "Technical specifications on effluents from nuclear power reactors." Due to a discrepancy in the attachments of the original submittal, a corrected copy is being provided.

Should you have any questions concerning this letter, please contact Mr. Bruce Franzen, Regulatory Assurance Manager, at (815) 416-2800.

Respectfully,

A handwritten signature in black ink, appearing to read "Peter J. Karaba".

Peter J. Karaba
Site Vice President
Dresden Nuclear Power Station

FE48
NMSSD1
NRR
NMSS

Attachments:

1. DNPS 2017 Annual Radioactive Effluent Release Report
2. Dresden Station Offsite Dose Calculation Manual, Revision 13
3. RW-AA-100, Process Control Program for Radioactive Wastes, Revision 12

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector, DNPS

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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 to any organ.

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. Effluent Concentration Limits

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:
- d. Tritium:
- e. Gross Alpha

The 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.

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 Chemical Cleaning Building effluent, the design basis flows are used to calculate curies released.

f. Carbon-14:

Carbon-14 activity released is estimated using Electric Power Research Institute Technical Report 1021106 Boiling Water Reactor proxy values (5.1 Ci per GWth year, Section 3.7) and the rated thermal capacity maintained for the entire calendar year. Resultant dose is calculated using approved methodologies.

g. 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, Fe-55, and Ni-63. Results from the quarter are conservatively applied for each month of the quarter. Batch release volume is based on LPCI heat exchanger volume.

h. Estimated Total Errors:

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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.

i. 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.

5. Batch Releases (does not include Abnormal / Unmonitored Releases described below in points 6 and 7)

a. Liquid - Radwaste Liquid Effluents - None

Liquid - CCSW/LPCI

(1) Number of batch releases:	0
(2) Total time period for batch releases:	0.00E+00 minutes
(3) Maximum time period for a batch release:	0.00E+00 minutes
(4) Average time period for a batch release:	0.00E+00 minutes
(5) Minimum time period for a batch release:	0.00E+00 minutes
(6) Average stream flow during periods of release of effluent into a flowing stream:	0.00E+00 lpm

b. Gaseous - None

6. Abnormal Releases (reported in Summation of all Releases tables as well as in Radiological Impact on Man section)

a. Liquid

(1) Number of releases:	0
(2) Total activity released:	0.00E+00 Ci

b. Gaseous

(1) Number of releases:	0
(2) Total activity released:	0.00E+00 Ci

7. Unmonitored Releases (reported in Summation of all Releases tables as well as in Radiological Impact on Man section)

a. Liquid

(1) Number of releases:	1 (examples: Storm Sewer System, Sewage Treatment Plant Effluent)
(2) Total activity released:	1.76E-01 Ci

Water in on-site storm sewers is routinely sampled and analyzed for tritium content. The highest storm drain concentrations of tritium measured during each month of 2017 were used to calculate the released activity for each month. The total activity released to the environment is based on an estimated typical discharge flow of 10 gallons per minute. Low level tritium was detected throughout the year 2017. The total estimated tritium activity released via the storm sewers in 2017 was 1.76E-01 Ci.

Water in the Sewage Treatment Plant (STP) effluent is routinely sampled and analyzed for tritium, gross alpha, Sr-89, Sr-90, Fe-55, and Ni-63. Tritium was not detected in the STP effluent in 2017. All other nuclide values were less than the Lower Limit of Detection (<LLD).

The estimated dose from these liquid releases was well below regulatory limits.

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b. Gaseous

- (1) Number of releases: 4 (examples: Unit 1 Main Turbine Floor and Unit 1 Fuel Building, Chemistry Laboratory Ventilation Effluent, Units 2/3 Heating Steam System, East Turbine Building Ventilation, and Isolation Condenser Actuation)
- (2) Total activity released: 1.42E-04 Ci

The Unit 1 Main Turbine Floor is used as an area to work on contaminated equipment. The Unit 1 Fuel Building is used as a storage area and potentially as a work area. The ventilation systems to these areas are no longer operational and the areas are at ambient pressure with the outside environment. The potential exists for airborne activity to be released to the environment through various points. Based on the work normally performed in these areas, an estimated 7.20E-05 Ci of Cs-137 was released via this path during 2017.

The Chemistry Laboratory exhausts directly into the environment via its ventilation system. This release path is not monitored. Based on an evaluation of activities performed in the area, the estimated activity released to the environment from the laboratory in 2017 is 4.64E-05 Ci.

The Unit 2/3 Heating Steam System has been contaminated in the past. The system continues to contain low-level contamination. During normal operation, the condensate is converted to steam, a portion of which gets vented to the atmosphere. Tritium was the only nuclide detected in 2017. An estimated 1.81E-05 Ci of activity was released to the environment during 2017.

The East Turbine Building Ventilation System exhausts directly into the environment. This release path is not monitored. Low-level removable contamination has been detected in the system in the past. An estimated 2.20E-06 Ci of Co-60 and 2.78E-06 Ci of Cs-137 was released to the environment during 2017.

No Isolation Condenser actuations occurred in 2017.

The estimated dose from these gaseous releases was well below regulatory limits.

8. Summary of Offsite Dose Calculation Manual (ODCM) Changes by Dresden Nuclear Power Station (DNPS) in 2017:

Revision 13 of the ODCM was issued in January 2017. The Revision 13 changes were related to removing the requirement to enter Mode 2 due to non-functional Condenser Air Ejector Radiation Monitors. The revision also included instituting programmatic sampling requirements of the off-gas systems to allow continued plant operation, while maintaining the ability to validate that the off-gas system effluents are within applicable limits, in the event of non-functioning Condenser Air Ejector Radiation Monitors. Finally, the revision included modifying the ODCM bases to reflect the changes in the requirements described above.

The Dresden Station ODCM, Revision 13, is included as Attachment 1 of this document.

9. Errata:

None

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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

UNITS 1,2,3

GASEOUS EFFLUENTS

SUMMATION OF ALL RELEASES

	Units	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Est. Total Error, %
A. Fission & activation gases						
1. Total release	Ci	1.12E+01	1.05E+01	1.45E+01	1.27E+01	1.31E+01
2. Average release rate for period	μCi/sec	1.45E+00	1.34E+00	1.82E+00	1.60E+00	
3. Percent of ODCM annual dose limit	% Whole Body	2.29E-04	2.15E-04	2.17E-04	1.77E-04	
	% Skin	6.49E-05	6.13E-05	6.18E-05	5.08E-05	

B. Iodine-131

1. Total release	Ci	2.41E-04	3.05E-04	2.78E-04	2.12E-04	2.60E+01
2. Average release rate for period	μCi/sec	3.10E-05	3.88E-05	3.50E-05	2.66E-05	
3. Percent of ODCM annual dose limit (*)	%	4.47E-03	5.46E-03	5.02E-03	3.90E-03	

C. Particulates

1. Particulates with half-lives > 8 days	Ci	6.11E-04	7.83E-04	1.03E-03	7.26E-04	2.94E+01
2. Average release rate for period	μCi/sec	7.86E-05	9.96E-05	1.29E-04	9.14E-05	
3. Percent of ODCM annual dose limit (*)	%	4.47E-03	5.46E-03	5.02E-03	3.90E-03	

D. Tritium

1. Total release	Ci	3.08E+00	2.50E+00	2.17E+00	4.54E+00	7.56E+00
2. Average release rate for period	μCi/sec	3.97E-01	3.17E-01	2.73E-01	5.71E-01	
3. Percent of ODCM annual dose limit (*)	%	4.47E-03	5.46E-03	5.02E-03	3.90E-03	

E. Gross Alpha

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.94E+01
2. Average release rate for period	μCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of ODCM annual dose limit	%	N/A	N/A	N/A	N/A	

F. Carbon-14

1. Total release	Ci	7.38E+00	7.46E+00	7.54E+00	6.64E+00	
2. Average release rate for period	μCi/sec	9.49E-01	9.49E-01	9.49E-01	8.35E-01	

(*): "Percent of ODCM annual dose limit" indicates combined total of Iodine-131, Particulates, and Tritium

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

Licensee: Exelon Nuclear

UNIT 1 GASEOUS EFFLUENTS SUMMATION OF ALL RELEASES

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

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	1.31E+01
2. Average release rate for period	µCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of ODCM quarterly dose limit	%γ	N/A	N/A	N/A	N/A	
	%β	N/A	N/A	N/A	N/A	

B. Iodine-131

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.60E+01
2. Average release rate for period	µCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of ODCM quarterly dose limit (*)	%	N/A	N/A	N/A	N/A	

C. Particulates

1. Particulates with half-lives > 8 days	Ci	1.93E-05	2.04E-05	2.07E-05	1.90E-05	2.94E+01
2. Average release rate for period	µCi/sec	2.48E-06	2.60E-06	2.60E-06	2.40E-06	
3. Percent of ODCM quarterly dose limit (*)	%	6.26E-03	6.33E-03	6.35E-03	6.24E-03	

D. Tritium

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	7.56E+00
2. Average release rate for period	µCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of ODCM quarterly dose limit (*)	%	N/A	N/A	N/A	N/A	

E. Gross Alpha

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.94E+01
2. Average release rate for period	µCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of ODCM quarterly dose limit	%	N/A	N/A	N/A	N/A	

F. Carbon-14

1. Total release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
2. Average release rate for period	µCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

(*): "Percent of ODCM quarterly dose limit" indicates combined total of Iodine-131, Particulates, and Tritium

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EFFLUENT AND WASTE DISPOSAL SUMMARY
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Facility: Dresden Nuclear Power Station Units 1,2,3

Licensee: Exelon Nuclear

UNIT 2 GASEOUS EFFLUENTS SUMMATION OF ALL RELEASES

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

1. Total release	Ci	5.22E+00	5.01E+00	6.05E+00	3.73E+00	1.31E+01
2. Average release rate for period	µCi/sec	6.71E-01	6.37E-01	7.61E-01	4.70E-01	
3. Percent of ODCM quarterly dose limit	%γ	3.87E-03	3.79E-03	3.30E-03	1.96E-03	
	%β	7.79E-05	1.26E-04	7.44E-05	6.79E-05	

B. Iodine-131

1. Total release	Ci	9.04E-05	1.27E-04	1.59E-04	8.17E-05	2.60E+01
2. Average release rate for period	µCi/sec	1.16E-05	1.62E-05	2.00E-05	1.03E-05	
3. Percent of ODCM quarterly dose limit (*)	%	1.47E-01	1.49E-01	1.53E-01	1.16E-01	

C. Particulates

1. Particulates with half-lives > 8 days	Ci	2.16E-04	3.15E-04	5.69E-04	2.92E-04	2.94E+01
2. Average release rate for period	µCi/sec	2.78E-05	4.00E-05	7.16E-05	3.68E-05	
3. Percent of ODCM quarterly dose limit (*)	%	1.47E-01	1.49E-01	1.53E-01	1.16E-01	

D. Tritium

1. Total release	Ci	1.13E+00	1.04E+00	1.13E+00	1.66E+00	7.56E+00
2. Average release rate for period	µCi/sec	1.46E-01	1.32E-01	1.42E-01	2.09E-01	
3. Percent of ODCM quarterly dose limit (*)	%	1.47E-01	1.49E-01	1.53E-01	1.16E-01	

E. Gross Alpha

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.94E+01
2. Average release rate for period	µCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of ODCM quarterly dose limit	%	N/A	N/A	N/A	N/A	

F. Carbon-14

1. Total release	Ci	3.69E+00	3.73E+00	3.77E+00	2.87E+00	
2. Average release rate for period	µCi/sec	4.75E-01	4.74E-01	4.74E-01	3.61E-01	

(*): "Percent of ODCM quarterly dose limit" indicates combined total of Iodine-131, Particulates, and Tritium

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UNIT 3

GASEOUS EFFLUENTS

SUMMATION OF ALL RELEASES

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

1. Total release	Ci	6.03E+00	5.53E+00	8.41E+00	8.98E+00	1.31E+01
2. Average release rate for period	μCi/sec	7.76E-01	7.03E-01	1.06E+00	1.13E+00	
3. Percent of ODCM quarterly dose limit	%γ	4.61E-03	4.25E-03	4.94E-03	4.78E-03	
	%β	8.77E-05	1.31E-04	1.04E-04	1.64E-04	

B. Iodine-131

1. Total release	Ci	1.51E-04	1.78E-04	1.20E-04	1.30E-04	2.60E+01
2. Average release rate for period	μCi/sec	1.94E-05	2.26E-05	1.51E-05	1.64E-05	
3. Percent of ODCM quarterly dose limit (*)	%	1.49E-01	1.51E-01	1.52E-01	1.53E-01	

C. Particulates

1. Particulates with half-lives > 8 days	Ci	3.76E-04	4.48E-04	4.39E-04	4.15E-04	2.94E+01
2. Average release rate for period	μCi/sec	4.83E-05	5.70E-05	5.53E-05	5.22E-05	
3. Percent of ODCM quarterly dose limit (*)	%	1.49E-01	1.51E-01	1.52E-01	1.53E-01	

D. Tritium

1. Total release	Ci	1.95E+00	1.45E+00	1.05E+00	2.87E+00	7.56E+00
2. Average release rate for period	μCi/sec	2.51E-01	1.85E-01	1.32E-01	3.62E-01	
3. Percent of ODCM quarterly dose limit (*)	%	1.49E-01	1.51E-01	1.52E-01	1.53E-01	

E. Gross Alpha

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.94E+01
2. Average release rate for period	μCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of ODCM quarterly dose limit	%	N/A	N/A	N/A	N/A	

F. Carbon-14

1. Total release	Ci	3.69E+00	3.73E+00	3.77E+00	3.77E+00	
2. Average release rate for period	μCi/sec	4.75E-01	4.74E-01	4.74E-01	4.74E-01	

(*): "Percent of ODCM quarterly dose limit" indicates combined total of Iodine-131, Particulates, and Tritium

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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.

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Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	1.80E-05	1.80E-05	1.80E-05	2.08E-05	7.48E-05
Ba-140	Ci	<LLD	<LLD	<LLD	4.53E-09	4.53E-09
Ce-141	Ci	<LLD	<LLD	<LLD	1.06E-11	1.06E-11
Ce-144	Ci	<LLD	<LLD	<LLD	6.66E-10	6.66E-10
Hf-181	Ci	<LLD	<LLD	<LLD	7.34E-11	7.34E-11
Total for period	Ci	1.80E-05	1.80E-05	1.80E-05	2.44E-05	7.84E-05
4. Tritium						
Total for period	Ci	<LLD	<LLD	<LLD	1.81E-05	1.81E-05
5. Gross Alpha						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
6. Carbon-14						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

(*): The values in this table represent Unit 1 Main Turbine Floor and Unit 1 Fuel Building, Chemistry Laboratory Ventilation Effluent, East Turbine Building Ventilation System, Units 2/3 Heating Steam System unmonitored effluents.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNITS 1,2,3 GROUND (*)		GROUND RELEASES				BATCH MODE
Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path during this time period.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 1 GROUND (*) GROUND RELEASES CONTINUOUS MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci	N/A	N/A	N/A	N/A	N/A
Kr-85	Ci	N/A	N/A	N/A	N/A	N/A
Kr-85m	Ci	N/A	N/A	N/A	N/A	N/A
Kr-87	Ci	N/A	N/A	N/A	N/A	N/A
Kr-88	Ci	N/A	N/A	N/A	N/A	N/A
Xe-131m	Ci	N/A	N/A	N/A	N/A	N/A
Xe-133	Ci	N/A	N/A	N/A	N/A	N/A
Xe-133m	Ci	N/A	N/A	N/A	N/A	N/A
Xe-135	Ci	N/A	N/A	N/A	N/A	N/A
Xe-135m	Ci	N/A	N/A	N/A	N/A	N/A
Xe-138	Ci	N/A	N/A	N/A	N/A	N/A
Total for period	Ci	None	None	None	None	None
2. Iodines and Halogens						
Br-82	Ci	N/A	N/A	N/A	N/A	N/A
Br-84	Ci	N/A	N/A	N/A	N/A	N/A
I-131	Ci	N/A	N/A	N/A	N/A	N/A
I-132	Ci	N/A	N/A	N/A	N/A	N/A
I-133	Ci	N/A	N/A	N/A	N/A	N/A
I-134	Ci	N/A	N/A	N/A	N/A	N/A
I-135	Ci	N/A	N/A	N/A	N/A	N/A
Total for period	Ci	None	None	None	None	None
3. Particulates						
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-57	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	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-117m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-125	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	1.80E-05	1.80E-05	1.80E-05	1.80E-05	7.20E-05
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	1.80E-05	1.80E-05	1.80E-05	1.80E-05	7.20E-05
4. Tritium						
Total for period	Ci	None	None	None	None	None
5. Gross Alpha						
Total for period	Ci	None	None	None	None	None
6. Carbon-14						
Total for period	Ci	None	None	None	None	None

(*): The values in this table represent Unit 1 Main Turbine Floor and Unit 1 Fuel Building unmonitored effluent.

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 1 GROUND (*)		GROUND RELEASES				BATCH MODE
Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					

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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 2 GROUND (*)		GROUND RELEASES			CONTINUOUS MODE	
Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci	<LLD	<LLD	<LLD	1.03E-07	1.03E-07
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	1.56E-07	1.56E-07
Kr-87	Ci	<LLD	<LLD	<LLD	9.02E-07	9.02E-07
Kr-88	Ci	<LLD	<LLD	<LLD	6.01E-07	6.01E-07
Xe-131m	Ci	<LLD	<LLD	<LLD	9.55E-09	9.55E-09
Xe-133	Ci	<LLD	<LLD	<LLD	4.88E-08	4.88E-08
Xe-133m	Ci	<LLD	<LLD	<LLD	2.86E-11	2.86E-11
Xe-135	Ci	<LLD	<LLD	<LLD	8.12E-07	8.12E-07
Xe-135m	Ci	<LLD	<LLD	<LLD	1.58E-06	1.58E-06
Xe-138	Ci	<LLD	<LLD	<LLD	6.02E-06	6.02E-06
Total for period	Ci	<LLD	<LLD	<LLD	1.02E-05	1.02E-05
2. Iodines and Halogens						
Br-82	Ci	<LLD	<LLD	<LLD	7.16E-09	7.16E-09
Br-84	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	<LLD	<LLD	<LLD	4.42E-11	4.42E-11
I-132	Ci	<LLD	<LLD	<LLD	3.83E-10	3.83E-10
I-133	Ci	<LLD	<LLD	<LLD	3.43E-10	3.43E-10
I-134	Ci	<LLD	<LLD	<LLD	1.40E-07	1.40E-07
I-135	Ci	<LLD	<LLD	<LLD	5.34E-10	5.34E-10
Total for period	Ci	<LLD	<LLD	<LLD	1.48E-07	1.48E-07
3. Particulates						
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	7.82E-08	7.82E-08
Mn-54	Ci	<LLD	<LLD	<LLD	1.15E-07	1.15E-07
Co-57	Ci	<LLD	<LLD	<LLD	1.71E-10	1.71E-10
Co-58	Ci	<LLD	<LLD	<LLD	4.38E-08	4.38E-08
Fe-59	Ci	<LLD	<LLD	<LLD	3.76E-08	3.76E-08
Co-60	Ci	<LLD	<LLD	<LLD	2.48E-06	2.48E-06
Zn-65	Ci	<LLD	<LLD	<LLD	6.13E-08	6.13E-08
Nb-95	Ci	<LLD	<LLD	<LLD	3.20E-09	3.20E-09
Zr-95	Ci	<LLD	<LLD	<LLD	3.12E-09	3.12E-09
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	2.02E-08	2.02E-08
Sn-113	Ci	<LLD	<LLD	<LLD	7.46E-10	7.46E-10
Sn-117m	Ci	<LLD	<LLD	<LLD	6.67E-09	6.67E-09
Te-123m	Ci	<LLD	<LLD	<LLD	6.88E-09	6.88E-09
Sb-124	Ci	<LLD	<LLD	<LLD	7.30E-09	7.30E-09
Sb-125	Ci	<LLD	<LLD	<LLD	9.17E-10	9.17E-10

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	2.78E-06	2.78E-06
Ba-140	Ci	<LLD	<LLD	<LLD	2.00E-09	2.00E-09
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	6.35E-10	6.35E-10
Hf-181	Ci	<LLD	<LLD	<LLD	7.34E-11	7.34E-11
Total for period	Ci	<LLD	<LLD	<LLD	5.64E-06	5.64E-06
4. Tritium						
Total for period	Ci	None	None	None	None	None
5. Gross Alpha						
Total for period	Ci	None	None	None	None	None
6. Carbon-14						
Total for period	Ci	None	None	None	None	None

(*): The values in this table represent Chemistry Laboratory Ventilation Effluent and East Turbine Building Ventilation System unmonitored effluents.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 2 GROUND (*)	GROUND RELEASES					BATCH MODE
Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path during this time period.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 3 GROUND (*)	GROUND RELEASES				CONTINUOUS MODE	
Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci	<LLD	<LLD	<LLD	1.78E-07	1.78E-07
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	1.42E-07	1.42E-07
Kr-87	Ci	<LLD	<LLD	<LLD	8.15E-07	8.15E-07
Kr-88	Ci	<LLD	<LLD	<LLD	5.13E-07	5.13E-07
Xe-131m	Ci	<LLD	<LLD	<LLD	6.58E-09	6.58E-09
Xe-133	Ci	<LLD	<LLD	<LLD	5.78E-08	5.78E-08
Xe-133m	Ci	<LLD	<LLD	<LLD	2.85E-11	2.85E-11
Xe-135	Ci	<LLD	<LLD	<LLD	9.04E-07	9.04E-07
Xe-135m	Ci	<LLD	<LLD	<LLD	1.95E-06	1.95E-06
Xe-138	Ci	<LLD	<LLD	<LLD	6.96E-06	6.96E-06
Total for period	Ci	<LLD	<LLD	<LLD	1.15E-05	1.15E-05
2. Iodines and Halogens						
Br-82	Ci	<LLD	<LLD	<LLD	9.81E-10	9.81E-10
Br-84	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	<LLD	<LLD	<LLD	6.23E-11	6.23E-11
I-132	Ci	<LLD	<LLD	<LLD	2.62E-10	2.62E-10
I-133	Ci	<LLD	<LLD	<LLD	3.67E-10	3.67E-10
I-134	Ci	<LLD	<LLD	<LLD	3.77E-07	3.77E-07
I-135	Ci	<LLD	<LLD	<LLD	5.22E-10	5.22E-10
Total for period	Ci	<LLD	<LLD	<LLD	3.79E-07	3.79E-07
3. Particulates						
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	8.26E-08	8.26E-08
Mn-54	Ci	<LLD	<LLD	<LLD	1.31E-07	1.31E-07
Co-57	Ci	<LLD	<LLD	<LLD	2.09E-10	2.09E-10
Co-58	Ci	<LLD	<LLD	<LLD	5.58E-08	5.58E-08
Fe-59	Ci	<LLD	<LLD	<LLD	2.46E-08	2.46E-08
Co-60	Ci	<LLD	<LLD	<LLD	3.30E-07	3.30E-07
Zn-65	Ci	<LLD	<LLD	<LLD	7.07E-08	7.07E-08
Nb-95	Ci	<LLD	<LLD	<LLD	5.70E-09	5.70E-09
Zr-95	Ci	<LLD	<LLD	<LLD	4.04E-09	4.04E-09
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	6.95E-09	6.95E-09
Sn-113	Ci	<LLD	<LLD	<LLD	1.24E-09	1.24E-09
Sn-117m	Ci	<LLD	<LLD	<LLD	5.12E-09	5.12E-09
Te-123m	Ci	<LLD	<LLD	<LLD	5.27E-09	5.27E-09
Sb-124	Ci	<LLD	<LLD	<LLD	6.74E-09	6.74E-09
Sb-125	Ci	<LLD	<LLD	<LLD	1.40E-09	1.40E-09

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	2.53E-09	2.53E-09
Ce-141	Ci	<LLD	<LLD	<LLD	1.06E-11	1.06E-11
Ce-144	Ci	<LLD	<LLD	<LLD	3.11E-11	3.11E-11
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	<LLD	<LLD	<LLD	7.34E-07	7.34E-07
4. Tritium						
Total for period	Ci	<LLD	<LLD	<LLD	1.81E-05	1.81E-05
5. Gross Alpha						
Total for period	Ci	None	None	None	None	None
6. Carbon-14						
Total for period	Ci	None	None	None	None	None

(*): The values in this table represent Chemistry Laboratory Ventilation Effluent and Units 2/3 Heating Steam unmonitored effluents.

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 3 GROUND (*)		GROUND RELEASES				BATCH MODE
Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					

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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path during this time period.

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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNITS 1,2,3 MAIN CHIMNEYS ELEVATED RELEASES CONTINUOUS MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci	5.04E-01	3.74E-01	4.93E-01	2.59E-01	1.63E+00
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	6.91E-02	6.07E-02	7.06E-02	6.29E-02	2.63E-01
Kr-87	Ci	2.30E-01	2.15E-01	2.12E-01	1.71E-01	8.28E-01
Kr-88	Ci	1.33E-01	1.27E-01	1.21E-01	1.01E-01	4.82E-01
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	3.33E+00	2.28E+00	6.19E+00	5.66E+00	1.75E+01
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	1.91E-01	1.81E-01	1.19E+00	5.69E-01	2.13E+00
Xe-135m	Ci	1.31E+00	1.29E+00	1.23E+00	1.03E+00	4.86E+00
Xe-138	Ci	5.48E+00	5.28E+00	4.96E+00	4.24E+00	2.00E+01
Total for period	Ci	1.12E+01	9.81E+00	1.45E+01	1.21E+01	4.76E+01
2. Iodines and Halogens						
Br-82	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Br-84	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	2.41E-04	3.05E-04	2.78E-04	2.12E-04	1.04E-03
I-132	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	1.41E-03	2.17E-03	2.17E-03	1.51E-03	7.27E-03
I-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	8.67E-04	1.64E-03	1.96E-03	2.29E-04	4.69E-03
Total for period	Ci	2.52E-03	4.12E-03	4.41E-03	1.95E-03	1.30E-02
3. Particulates						
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	3.96E-05	3.02E-05	3.27E-05	4.39E-05	1.46E-04
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	3.54E-05	7.19E-05	7.52E-05	3.58E-05	2.18E-04
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	1.42E-05	4.72E-05	6.50E-05	2.41E-05	1.50E-04
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	2.18E-04	2.45E-04	3.14E-04	2.48E-04	1.03E-03
Zn-65	Ci	1.53E-04	2.63E-04	3.80E-04	1.12E-04	9.08E-04
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	5.83E-06	3.25E-06	<LLD	<LLD	9.08E-06
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-117m	Ci	3.16E-05	3.24E-05	5.91E-05	4.55E-05	1.69E-04
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-125	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	2.98E-06	<LLD	<LLD	<LLD	2.98E-06
Ba-140	Ci	6.63E-05	4.97E-05	6.44E-05	7.46E-05	2.55E-04
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	5.67E-04	7.42E-04	9.90E-04	5.84E-04	2.88E-03
4. Tritium						
Total for period	Ci	2.52E+00	2.02E+00	1.73E+00	3.98E+00	1.02E+01
5. Gross Alpha						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
6. Carbon-14						
Total for period	Ci	7.38E+00	7.46E+00	7.54E+00	6.64E+00	2.90E+01

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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNITS 1,2,3 MAIN CHIMNEYS (*) ELEVATED RELEASES BATCH MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					

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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 1 MAIN CHIMNEY (*) ELEVATED RELEASES CONTINUOUS MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
I. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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					
Co-57	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					

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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No continuous releases via this effluent path

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 1 MAIN CHIMNEY (²)

ELEVATED RELEASES

BATCH MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					

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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-125	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	1.13E-06	<LLD	<LLD	<LLD	1.13E-06
Ba-140	Ci	2.34E-05	2.12E-05	3.40E-05	2.46E-05	1.03E-04
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	2.06E-04	3.10E-04	5.62E-04	2.19E-04	1.30E-03
4. Tritium						
Total for period	Ci	9.24E-01	8.42E-01	9.87E-01	1.46E+00	4.21E+00
5. Gross Alpha						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
6. Carbon-14						
Total for period	Ci	3.69E+00	3.73E+00	3.77E+00	2.87E+00	1.41E+01

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 2 MAIN CHIMNEY (*)	ELEVATED RELEASES					BATCH MODE
Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					

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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 3 MAIN CHIMNEY ELEVATED RELEASES CONTINUOUS MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci	4.68E-01	2.93E-01	4.46E-01	1.83E-01	1.39E+00
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-85m	Ci	4.75E-02	4.09E-02	4.91E-02	4.60E-02	1.84E-01
Kr-87	Ci	1.09E-01	9.92E-02	1.07E-01	1.12E-01	4.27E-01
Kr-88	Ci	5.80E-02	5.59E-02	6.14E-02	6.27E-02	2.38E-01
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	1.76E+00	1.20E+00	3.52E+00	3.98E+00	1.05E+01
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	9.27E-02	8.67E-02	6.41E-01	3.94E-01	1.21E+00
Xe-135m	Ci	6.98E-01	6.81E-01	7.27E-01	7.37E-01	2.84E+00
Xe-138	Ci	2.79E+00	2.71E+00	2.86E+00	3.03E+00	1.14E+01
Total for period	Ci	6.03E+00	5.17E+00	8.41E+00	8.54E+00	2.82E+01
2. Iodines and Halogens						
Br-82	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Br-84	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	1.51E-04	1.78E-04	1.20E-04	1.30E-04	5.78E-04
I-132	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	8.85E-04	1.27E-03	9.33E-04	9.51E-04	4.04E-03
I-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	5.40E-04	9.50E-04	8.41E-04	1.24E-04	2.46E-03
Total for period	Ci	1.58E-03	2.39E-03	1.89E-03	1.20E-03	7.07E-03
3. Particulates						
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	2.49E-05	1.77E-05	1.41E-05	2.82E-05	8.48E-05
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	2.28E-05	4.19E-05	3.23E-05	2.12E-05	1.18E-04
Co-58	Ci	9.19E-06	2.77E-05	2.80E-05	1.47E-05	7.95E-05
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	1.38E-04	1.43E-04	1.35E-04	1.53E-04	5.70E-04
Zn-65	Ci	9.81E-05	1.53E-04	1.63E-04	6.67E-05	4.81E-04
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	3.79E-06	1.94E-06	<LLD	<LLD	5.73E-06
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-117m	Ci	1.95E-05	1.89E-05	2.54E-05	3.08E-05	9.46E-05
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-125	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	1.85E-06	<LLD	<LLD	<LLD	1.85E-06
Ba-140	Ci	4.29E-05	2.85E-05	3.04E-05	5.00E-05	1.52E-04
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	3.61E-04	4.33E-04	4.29E-04	3.65E-04	1.59E-03
4. Tritium						
Total for period	Ci	1.59E+00	1.18E+00	7.46E-01	2.52E+00	6.04E+00
5. Gross Alpha						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
6. Carbon-14						
Total for period	Ci	3.69E+00	3.73E+00	3.77E+00	3.77E+00	1.50E+01

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 3 MAIN CHIMNEY (*) ELEVATED RELEASES BATCH MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNITS 1,2,3 (*) MIXED MODE RELEASES CONTINUOUS MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
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-131m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	7.32E-01	<LLD	6.11E-01	1.34E+00
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	3.97E-06	<LLD	1.21E-05	5.93E-06	2.20E-05
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	3.97E-06	7.32E-01	1.21E-05	6.11E-01	1.34E+00
2. Iodines and Halogens						
Br-82	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Br-84	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	<LLD	<LLD	<LLD	2.08E-07	2.08E-07
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
Total for period	Ci	<LLD	<LLD	<LLD	2.08E-07	2.08E-07
3. Particulates						
Cr-51	Ci	<LLD	<LLD	<LLD	7.20E-05	7.20E-05
Mn-54	Ci	1.17E-06	<LLD	<LLD	4.48E-06	5.65E-06
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	2.90E-06	2.90E-06
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	2.50E-05	2.22E-05	2.05E-05	3.06E-05	9.83E-05
Zn-65	Ci	<LLD	<LLD	<LLD	7.64E-06	7.64E-06
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Sn-117m	Ci	<LLD	4.96E-07	<LLD	5.13E-07	1.01E-06
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-125	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
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	2.62E-05	2.27E-05	2.05E-05	1.18E-04	1.88E-04
4. Tritium						
Total for period	Ci	5.67E-01	4.78E-01	4.38E-01	5.58E-01	2.04E+00
5. Gross Alpha						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
6. Carbon-14						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

(*): Units 1,2,3 mixed modes releases include Unit 1 Chemical Cleaning Building, Unit 2 Reactor Building Vent and Unit 3 Reactor Building Vent.

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNITS 1,2,3 (*)	MIXED MODE RELEASES				BATCH MODE	
Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
Nuclides Released						
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): Units 1,2,3 mixed modes releases include Unit 1 Chemical Cleaning Building, Unit 2 Reactor Building Vent and Unit 3 Reactor Building Vent. No batch releases via these effluent paths.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 1 CHEMICAL CLEANING BUILDING MIXED MODE RELEASES CONTINUOUS MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci	N/A	N/A	N/A	N/A	N/A
Kr-85	Ci	N/A	N/A	N/A	N/A	N/A
Kr-85m	Ci	N/A	N/A	N/A	N/A	N/A
Kr-87	Ci	N/A	N/A	N/A	N/A	N/A
Kr-88	Ci	N/A	N/A	N/A	N/A	N/A
Xe-131m	Ci	N/A	N/A	N/A	N/A	N/A
Xe-133	Ci	N/A	N/A	N/A	N/A	N/A
Xe-133m	Ci	N/A	N/A	N/A	N/A	N/A
Xe-135	Ci	N/A	N/A	N/A	N/A	N/A
Xe-135m	Ci	N/A	N/A	N/A	N/A	N/A
Xe-138	Ci	N/A	N/A	N/A	N/A	N/A
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
2. Iodines and Halogens						
Br-82	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Br-84	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
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
3. Particulates						
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-57	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	1.29E-06	2.43E-06	2.67E-06	1.04E-06	7.44E-06
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-117m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-125	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
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	1.29E-06	2.43E-06	2.67E-06	1.04E-06	7.44E-06
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): Analysis not required per Dresden Station ODCM

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 1 CHEMICAL CLEANING BUILDING (*) MIXED MODE RELEASES BATCH MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 2 REACTOR BUILDING VENT MIXED MODE RELEASES CONTINUOUS MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
Nuclides Released						
1. Fission and Activation Gases						
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-131m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	3.71E-01	<LLD	1.78E-01	5.49E-01
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	5.61E-06	<LLD	5.61E-06
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	<LLD	3.71E-01	5.61E-06	1.78E-01	5.49E-01
2. Iodines and Halogens						
Br-82	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Br-84	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	<LLD	<LLD	<LLD	9.50E-08	9.50E-08
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
Total for period	Ci	<LLD	<LLD	<LLD	9.50E-08	9.50E-08
3. Particulates						
Cr-51	Ci	<LLD	<LLD	<LLD	4.68E-05	4.68E-05
Mn-54	Ci	1.17E-06	<LLD	<LLD	1.61E-06	2.78E-06
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	1.04E-06	1.04E-06
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	9.35E-06	5.13E-06	7.38E-06	1.22E-05	3.41E-05
Zn-65	Ci	<LLD	<LLD	<LLD	5.34E-06	5.34E-06
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-117m	Ci	<LLD	<LLD	<LLD	5.13E-07	5.13E-07
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-125	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
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	1.05E-05	5.13E-06	7.38E-06	6.75E-05	9.06E-05
4. Tritium						
Total for period	Ci	2.09E-01	1.99E-01	1.39E-01	2.05E-01	7.52E-01
5. Gross Alpha						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
6. Carbon-14						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 2 REACTOR BUILDING VENT (*) MIXED MODE RELEASES BATCH MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					
Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 3 REACTOR BUILDING VENT MIXED MODE RELEASES CONTINUOUS MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
1. Fission and Activation Gases						
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-131m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	3.61E-01	<LLD	4.33E-01	7.94E-01
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-135	Ci	3.97E-06	<LLD	6.49E-06	5.93E-06	1.64E-05
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	3.97E-06	3.61E-01	6.49E-06	4.33E-01	7.94E-01
2. Iodines and Halogens						
Br-82	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Br-84	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	<LLD	<LLD	<LLD	1.13E-07	1.13E-07
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
Total for period	Ci	<LLD	<LLD	<LLD	1.13E-07	1.13E-07
3. Particulates						
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	2.52E-05	2.52E-05
Mn-54	Ci	<LLD	<LLD	<LLD	2.88E-06	2.88E-06
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	1.86E-06	1.86E-06

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	1.44E-05	1.46E-05	1.05E-05	1.73E-05	5.67E-05
Zn-65	Ci	<LLD	<LLD	<LLD	2.30E-06	2.30E-06
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-117m	Ci	<LLD	4.96E-07	<LLD	<LLD	4.96E-07
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-125	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
Hf-181	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	1.44E-05	1.51E-05	1.05E-05	4.96E-05	8.95E-05
4. Tritium						
Total for period	Ci	3.58E-01	2.79E-01	2.99E-01	3.53E-01	1.29E+00
5. Gross Alpha						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
6. Carbon-14						
Total for period	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

GASEOUS EFFLUENTS

UNIT 3 REACTOR BUILDING VENT (*) MIXED MODE RELEASES BATCH MODE

Nuclides Released	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	ANNUAL
Nuclides Released						
1. Fission and Activation Gases						
Ar-41	Ci					
Kr-85	Ci					
Kr-85m	Ci					
Kr-87	Ci					
Kr-88	Ci					
Xe-131m	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 and Halogens						
Br-82	Ci					
Br-84	Ci					
I-131	Ci					
I-132	Ci					
I-133	Ci					
I-134	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-57	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Nb-95	Ci					
Zr-95	Ci					

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Mo-99	Ci					
Ag-110m	Ci					
Sn-113	Ci					
Sn-117m	Ci					
Te-123m	Ci					
Sb-124	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
Ce-144	Ci					
Hf-181	Ci					
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
4. Tritium						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
5. Gross Alpha						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)
6. Carbon-14						
Total for period	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

UNITS 1,2,3 (*) LIQUID EFFLUENTS SUMMATION OF ALL RELEASES

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

1. Total release (not including H-3, gases, alpha)	Ci	<LLD	<LLD	<LLD	<LLD	1.95E+01
2. Average diluted concentration during period	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - organ	% (**)	N/A	N/A	N/A	N/A	

B. Tritium

1. Total release	Ci	3.97E-02	4.25E-02	3.30E-02	6.05E-02	2.37E+00
2. Average diluted concentration during period	µCi/ml	1.68E-11	1.81E-11	1.39E-11	2.56E-11	
3. Percent of applicable dose limit - whole body	% (**)	9.67E-06	1.03E-05	8.04E-06	1.47E-05	

C. Dissolved and entrained gases

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.03E+01
2. Average diluted concentration during period	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - organ	% (**)	N/A	N/A	N/A	N/A	

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	4.91E+06	4.96E+06	5.01E+06	5.01E+06
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F. Volume of dilution water used during period	Liters	2.37E+12	2.34E+12	2.37E+12	2.37E+12
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(*): The values in these tables include Storm Sewer System and Sewage Treatment System unmonitored effluent path.

(**): These percentages are calculated referencing the quarterly "per unit" limits

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

UNIT 1 (*) LIQUID EFFLUENTS SUMMATION OF ALL RELEASES

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

1. Total release (not including H-3, gases, alpha)	Ci	<LLD	<LLD	<LLD	<LLD	1.95E+01
2. Average diluted concentration during period	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - organ	%	N/A	N/A	N/A	N/A	

B. Tritium

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.37E+00
2. Average diluted concentration during period	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - whole body	%	N/A	N/A	N/A	N/A	

C. Dissolved and entrained gases

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.03E+01
2. Average diluted concentration during period	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - organ	%	N/A	N/A	N/A	N/A	

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	N/A	N/A	N/A	N/A
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F. Volume of dilution water used during period	Liters	N/A	N/A	N/A	N/A
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(*): The values in this these tables include the Sewage Treatment unmonitored effluent path.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

UNIT 2 (*) LIQUID EFFLUENTS SUMMATION OF ALL RELEASES

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

1. Total release (not including H-3, gases, alpha)	Ci	<LLD	<LLD	<LLD	<LLD	1.95E+01
2. Average diluted concentration during period	μCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - organ	%	N/A	N/A	N/A	N/A	

B. Tritium

1. Total release	Ci	1.98E-02	2.12E-02	1.65E-02	3.02E-02	2.37E+00
2. Average diluted concentration during period	μCi/ml	1.68E-11	1.81E-11	1.39E-11	2.56E-11	
3. Percent of applicable dose limit - whole body	%	4.83E-06	5.17E-06	4.02E-06	7.37E-06	

C. Dissolved and entrained gases

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.03E+01
2. Average diluted concentration during period	μCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - organ	%	N/A	N/A	N/A	N/A	

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	2.45E+06	2.48E+06	2.51E+06	2.51E+06
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F. Volume of dilution water used during period	Liters	1.18E+12	1.17E+12	1.18E+12	1.18E+12
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(*): The values in these tables include the Storm Sewer System unmonitored effluent path. The Storm Sewer System is 50% allocated to Unit 2.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

UNIT 3 (*) LIQUID EFFLUENTS SUMMATION OF ALL RELEASES

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

1. Total release (not including H-3, gases, alpha)	Ci	<LLD	<LLD	<LLD	<LLD	1.95E+01
2. Average diluted concentration during period	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - organ	%	N/A	N/A	N/A	N/A	

B. Tritium

1. Total release	Ci	1.98E-02	2.12E-02	1.65E-02	3.02E-02	2.37E+00
2. Average diluted concentration during period	µCi/ml	1.68E-11	1.81E-11	1.39E-11	2.56E-11	
3. Percent of applicable dose limit - whole body	%	4.83E-06	5.17E-06	4.02E-06	7.37E-06	

C. Dissolved and entrained gases

1. Total release	Ci	<LLD	<LLD	<LLD	<LLD	2.03E+01
2. Average diluted concentration during period	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
3. Percent of applicable dose limit - organ	%	N/A	N/A	N/A	N/A	

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	2.45E+06	2.48E+06	2.51E+06	2.51E+06
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F. Volume of dilution water used during period	Liters	1.18E+12	1.17E+12	1.18E+12	1.18E+12
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(*): The values in these tables include the Storm Sewer System unmonitored effluent path. The Storm Sewer System is 50% allocated to Unit 3.

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
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EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

TABLE OF LOWER LIMITS OF DETECTABILITY
 FOR LIQUID EFFLUENTS

1.	FISSION/ACTIVATION GASES	$\mu\text{Ci/ml}$
	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	$\mu\text{Ci/ml}$
	I-131	1.00E-06
3.	PARTICULATES	$\mu\text{Ci/ml}$
	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	$\mu\text{Ci/ml}$
	H-3	1.00E-05
	Gross Alpha	1.00E-07

The above values are the ODCM-required LLDs.

DRESDEN NUCLEAR POWER STATION
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EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 1 SEWAGE TREATMENT PLANT (*)

CONTINUOUS MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
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-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	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	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	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	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

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
Total	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

(*): The Sewage Treatment Plant is 100% allocated to Unit 1.

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 1 SEWAGE TREATMENT PLANT (*)

BATCH MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 2 STORM SEWER SYSTEM (*)

CONTINUOUS MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
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-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	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	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	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	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

H-3	Ci	1.98E-02	2.12E-02	1.65E-02	3.02E-02	8.78E-02
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
Total	Ci	1.98E-02	2.12E-02	1.65E-02	3.02E-02	8.78E-02

(*): The Storm Sewer System is 50% allocated to Unit 2.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 2 STORM SEWER SYSTEM (*)

BATCH MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 3 STORM SEWER SYSTEM (*)

CONTINUOUS MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
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-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	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	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Zr-95	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	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
Total	Ci	<LLD	<LLD	<LLD	<LLD	<LLD

H-3	Ci	1.98E-02	2.12E-02	1.65E-02	3.02E-02	8.78E-02
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
Total	Ci	1.98E-02	2.12E-02	1.65E-02	3.02E-02	8.78E-02

(*): The Storm Sewer System is 50% allocated to Unit 3.

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 3 STORM SEWER SYSTEM (*)

BATCH MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 2 RADWASTE (*)

CONTINUOUS MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	Ci					
Mo-99	Ci					
Tc-99m	Ci					
Ru-103	Ci					
Ag-110m	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-136	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No continuous releases via this effluent path

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 2 RADWASTE (*)

BATCH MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 3 RADWASTE (*)

CONTINUOUS MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	Ci					
Mo-99	Ci					
Tc-99m	Ci					
Ru-103	Ci					
Ag-110m	Ci					
Sb-125	Ci					
Cs-134	Ci					
Cs-136	Ci					
Cs-137	Ci					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No continuous releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 3 RADWASTE (*)

BATCH MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 2 CONTAINMENT COOLING SERVICE WATER (*)

CONTINUOUS MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No continuous releases via this effluent path

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 2 CONTAINMENT COOLING SERVICE WATER (*)

BATCH MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 3 CONTAINMENT COOLING SERVICE WATER (*)

CONTINUOUS MODE

	Unit	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No continuous releases via this effluent path

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

EFFLUENT AND WASTE DISPOSAL SUMMARY
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

LIQUID EFFLUENTS

UNIT 3 CONTAINMENT COOLING SERVICE WATER (*)

BATCH MODE

Unit		1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
Fe-55	Ci					
Sr-89	Ci					
Sr-90	Ci					
I-131	Ci					
I-133	Ci					
I-135	Ci					
Cr-51	Ci					
Mn-54	Ci					
Co-58	Ci					
Fe-59	Ci					
Co-60	Ci					
Zn-65	Ci					
Zr-95	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					
Ba-140	Ci					
Ce-141	Ci					
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					
Total	Ci	None (*)	None (*)	None (*)	None (*)	None (*)

(*): No batch releases via this effluent path

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

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

Types of Waste

Type of Waste	Unit	12-Month Period	Est. Total Error, %
a. Spent resins, filter sludges / filters, evaporator bottoms, etc.	m ³	1.60E+02	+/- 2.50E+01
	Ci	9.21E+02	
b. Dry compressible waste, contaminated equipment, etc.	m ³	8.43E+02	+/- 2.50E+01
	Ci	1.13E+01	
c. Irradiated components, control rods, etc.	m ³	0.00E+00	N/A
	Ci	0.00E+00	
d. Other - Contaminated Oil	m ³	0.00E+00	+/- 2.50E+01
	Ci	0.00E+00	

Estimate of Major (i.e., ≥1%) Nuclide Composition (by Type of Waste)

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

<u>Nuclide</u>	<u>Percent %</u>	<u>Curies</u>
Fe-55	49.81	4.59E+02
Co-60	36.99	3.41E+02
Cs-137	6.55	6.03E+01
Zn-65	2.53	2.33E+01
Ni-63	1.54	1.41E+01
Mn-54	1.27	1.17E+01

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

b. Dry compressible waste, contaminated equipment, etc.

<u>Nuclide</u>	<u>Percent %</u>	<u>Curies</u>
Fe-55	54.14	6.12E+00
Co-60	28.89	3.26E+00
Mn-54	8.23	9.30E-01
Zn-65	3.61	4.08E-01
Cs-137	1.75	1.97E-01

Shipment type: LSA
Solidification agent or absorbent: None

c. Irradiated components, control rods, etc.

<u>Nuclide</u>	<u>Percent %</u>	<u>Curies</u>
NONE	N/A	N/A

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

d. Other – N/A

<u>Nuclide</u>	<u>Percent %</u>	<u>Curies</u>
NONE	N/A	N/A

Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
34	Motor freight (exclusive use only)	Energy Solutions - Bear Creek Road, Oak Ridge, TN
21	Motor freight (exclusive use only)	Energy Solutions - Clive, UT
5	Motor freight (exclusive use only)	Waste Control Specialists - Andrew, TX

IRRADIATED FUEL SHIPMENTS (DISPOSITION)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
NONE	N/A	N/A

CHANGES TO THE PROCESS CONTROL PROGRAM

In 2017, a change was made to the Dresden Station Process Control Program with the approval of Revision 12 of RW-AA-100, Process Control Program for Radioactive Wastes. The change was a minor change to provide reference information related to additional fleet power plants, and did not affect the processing of radioactive waste at Dresden Staion. Revision 12 of RW-AA-100 is included as Attachment 2 of this document.

MAJOR CHANGES TO RADIOACTIVE WAST TREATMENT SYSTEMS

There were no major changes to the radioactive liquid, gaseous, or solid waste treatment systems in 2017.

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

RADIOLOGICAL IMPACT ON MAN
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

1. Doses to a Member of the Public due to Liquid Releases in 2017 (from 01/01/2017 to 12/31/2017):

UNITS 1,2,3

Total Body: 6.42E-07 mrem

Organ: 6.42E-07 mrem

UNIT 1

Total Body: N/A

Organ: N/A

UNIT 2

Total Body: 3.21E-07 mrem

Organ: 3.21E-07 mrem

UNIT 3

Total Body: 3.21E-07 mrem

Organ: 3.21E-07 mrem

The above annual liquid dose values are reported per Dresden-site (UNITS 1,2,3) as well as per each individual reactor unit (UNIT 1, UNIT 2, UNIT 3). Regulatory annual liquid dose limits are listed on page 1 section 1.d.3) and section 1.d.4), of this report as well as in Dresden ODCM. The above annual liquid dose values are well below any regulatory limits.

2. Doses to a Member of the Public due to Gaseous Releases in 2017 (from 01/01/2017 to 12/31/2017):

UNITS 1,2,3

Gamma air (fission and activation gases): 1.58E-03 mrad

Beta air (fission and activation gases): 8.32E-05 mrad

Total Body (noble gases): 1.05E-03 mrem

Skin (noble gases): 1.79E-03 mrem

Organ - bone (radioiodines/tritium/particulates): 8.89E-02 mrem

UNIT 1

Gamma air (fission and activation gases): N/A

Beta air (fission and activation gases): N/A

Total Body (noble gases): N/A

Skin (noble gases): N/A

Organ - liver (radioiodines/tritium/particulates): 2.71E-03 mrem

UNIT 2

Gamma air (fission and activation gases): 6.46E-04 mrad

Beta air (fission and activation gases): 3.46E-05 mrad

Total Body (noble gases): 4.29E-04 mrem

Skin (noble gases): 7.35E-04 mrem

Organ - bone (radioiodines/tritium/particulates): 4.24E-02 mrem

UNIT 3

Gamma air (fission and activation gases): 9.29E-04 mrad

Beta air (fission and activation gases): 4.86E-05 mrad

Total Body (noble gases): 6.17E-04 mrem

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RADIOLOGICAL IMPACT ON MAN
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Skin (noble gases): 1.05E-03 mrem

Organ - bone (radioiodines/tritium/particulates): 4.53E-02 mrem

The above annual gaseous dose values are reported per Dresden-site (UNITS 1,2,3) as well as per each individual reactor unit (UNIT 1, UNIT 2, UNIT 3). Regulatory annual gaseous dose limits are listed on page 1 section 1.a. and section 1.b.,c., of this report as well as in Dresden ODCM. The above annual gaseous dose values are well below any regulatory limits.

3. Doses to a Member of the Public due to Direct Radiation in 2017 (from 01/01/2017 to 12/31/2017):

UNITS 1,2,3

Total Body (skyshine): 8.78E+00 mrem

UNITS 1

Total Body (skyshine): N/A

UNITS 2

Total Body (skyshine): 4.21E+00 mrem

UNITS 3

Total Body (skyshine): 4.57E+00 mrem

The above annual direct dose values are reported per Dresden-site (UNITS 1,2,3) as well as per each individual reactor unit (UNIT 1, UNIT 2, UNIT 3). These numbers are calculated per ODCM methodologies, and are used to demonstrate compliance with 40CFR190 total dose limit requirements listed on page 1 section 1.e., of this report as well as in Dresden ODCM.

4. Total body doses to the population and average doses to individuals in the population from all receiving-water-related-pathways are not applicable to Dresden Station. No downstream drinking water pathway exist within the specified distance of 10 kilometers (6.2miles).
5. Total body doses to the population and average doses to individuals in the population from gaseous effluents to a distance of 50 miles from the site are not applicable to Dresden Station.
6. Doses from liquid and gaseous effluent to members of the public due to their activities inside the site boundary for the report period are not applicable to Dresden Station. Any member of the public who is onsite for a significant period of time is issued an Optical Stimulated Luminescent Dosimeter (OSLD) to monitor direct radiation exposure.
7. For the report period, there were no effluent radiation monitors that exceeded the ODCM allowed inoperability time.
8. 40CFR190 / 10CFR72 Compliance:

The General Electric Hitachi Nuclear Energy Morris Operation (GEH Morris Operation) facility is physically located near Dresden Station, hence it is considered in the evaluation of the uranium fuel cycle on members of the public in the general environment.

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RADIOLOGICAL IMPACT ON MAN
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden decommissioning activities (Unit 1) and operations (Units 2 and 3) resulted in a maximum $8.89\text{E-}02$ mrem organ dose and $8.78\text{E+}00$ mrem total body dose. The Radiological Environmental Monitoring Program (REMP) direct radiation monitoring at or near the site boundary demonstrates that total body dose calculations to account for skyshine as found in the ODCM are conservative.

No effluents were released from the Dresden Independent Spent Fuel Storage Installations (ISFSIs) during 2017. REMP direct radiation monitoring at or near the site boundary demonstrates that the ISFSIs do not result in measurable dose to the public.

According to the 2017 GEH Morris Operation 10CFR72.44(d)(3) report, dated 2/20/2018, for the 2017 calendar year, the maximum dose at their site boundary from direct radiation exposure was $3.83\text{E-}01$ mrem. The maximum organ dose from site activities was $3.10\text{E-}07$ mrem for 2017.

Maximum combined total body dose from Dresden Station and GEH Morris Operation activities was $9.16\text{E+}00$ mrem during 2017, which was 36.64 % of the 40CFR190 limit of 25 mrem.

Maximum combined organ dose from Dresden and GEH Morris Operation activities was $8.89\text{E-}02$ mrem during 2017. This was 0.36 % of the 40CFR190 limit of 25 mrem to any organ. The combined thyroid dose was $7.07\text{E-}02$ mrem. This was 0.09 % of the 40CFR190 limit of 75 mrem.

DRESDEN NUCLEAR POWER STATION
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 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Extremely Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	1	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	1	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	0	3	0	0	3
SE	0	0	0	1	0	0	1
SSE	0	0	0	0	0	0	0
S	0	1	1	0	0	0	2
SSW	0	0	0	1	1	0	2
SW	0	0	2	0	6	0	8
WSW	0	2	1	1	0	0	4
W	0	0	0	3	2	1	6
WNW	0	0	4	0	0	0	4
NW	0	0	3	5	1	0	9
NNW	0	1	2	5	0	0	8
Variable	0	0	0	0	0	0	0
Total	0	4	15	19	10	1	49

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Moderately Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	3	0	0	0	5
NNE	0	0	1	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	1	0	0	1
SE	0	0	1	0	0	0	1
SSE	0	1	1	1	0	0	3
S	0	0	3	0	0	0	3
SSW	0	1	2	0	0	0	3
SW	0	0	3	0	0	0	3
WSW	0	3	2	0	0	0	5
W	0	1	1	3	0	1	6
WNW	0	0	4	0	1	0	5
NW	0	0	10	0	1	0	11
NNW	0	1	3	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	0	9	34	5	2	1	51

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Slightly Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	1	0	0	0	0	1
ENE	0	0	2	0	0	0	2
E	0	2	1	0	0	0	3
ESE	0	0	0	0	0	0	0
SE	0	1	1	1	0	0	3
SSE	0	0	0	3	0	0	3
S	0	2	2	1	0	0	5
SSW	0	0	3	2	1	0	6
SW	0	1	0	0	0	0	1
WSW	0	1	1	0	0	0	2
W	0	1	1	0	0	0	2
WNW	0	2	4	2	0	0	8
NW	0	0	4	0	0	0	4
NNW	0	0	1	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	0	11	20	9	1	0	41

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Neutral - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	3	8	17	6	0	0	34
NNE	2	9	7	0	0	0	18
NE	1	17	8	0	0	0	26
ENE	3	6	8	2	0	0	19
E	2	7	10	1	0	0	20
ESE	3	6	3	3	0	0	15
SE	1	6	4	4	0	0	15
SSE	0	4	12	8	0	0	24
S	0	14	10	16	6	0	46
SSW	1	4	11	14	0	0	30
SW	0	3	10	5	0	0	18
WSW	2	9	3	4	1	0	19
W	1	10	16	24	8	0	59
WNW	0	3	37	7	1	0	48
NW	1	10	22	4	1	0	38
NNW	1	6	18	3	0	0	28
Variable	0	0	0	0	0	0	0
Total	21	122	196	101	17	0	457

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Slightly Stable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	7	31	19	3	0	0	60
NNE	10	28	23	2	0	0	63
NE	1	30	27	4	0	0	62
ENE	6	41	18	0	0	0	65
E	3	60	30	2	0	0	95
ESE	4	24	40	6	0	0	74
SE	4	9	23	6	0	0	42
SSE	2	35	40	24	0	0	101
S	5	14	21	41	17	8	106
SSW	2	13	18	5	0	0	38
SW	3	8	11	7	1	0	30
WSW	2	12	17	14	0	0	45
W	4	35	72	30	5	0	146
WNW	9	56	92	35	2	0	194
NW	2	48	72	10	0	0	132
NNW	6	35	42	6	0	0	89
Variable	0	0	0	0	0	0	0
Total	70	479	565	195	25	8	1342

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Moderately Stable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	3	1	1	0	0	0	5
NNE	5	3	0	0	0	0	8
NE	0	1	0	0	0	0	1
ENE	2	1	0	0	0	0	3
E	1	0	0	0	0	0	1
ESE	2	15	0	0	0	0	17
SE	1	3	0	0	0	0	4
SSE	7	5	0	0	0	0	12
S	6	7	2	0	0	0	15
SSW	6	22	3	0	0	0	31
SW	4	10	11	1	0	0	26
WSW	4	5	3	0	0	0	12
W	5	6	0	0	0	0	11
WNW	3	3	0	0	0	0	6
NW	8	6	0	0	0	0	14
NNW	6	3	0	0	0	0	9
Variable	0	0	0	0	0	0	0
Total	63	91	20	1	0	0	175

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Extremely Stable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	3	0	0	0	0	0	3
NNE	1	0	0	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	1	0	0	0	0	0	1
ESE	2	0	0	0	0	0	2
SE	1	0	0	0	0	0	1
SSE	2	0	0	0	0	0	2
S	2	0	0	0	0	0	2
SSW	7	1	0	0	0	0	8
SW	4	4	0	0	0	0	8
WSW	3	1	0	0	0	0	4
W	3	0	0	0	0	0	3
WNW	3	0	0	0	0	0	3
NW	2	0	0	0	0	0	2
NNW	1	1	0	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	35	7	0	0	0	0	42

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Extremely Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	1	0	0	1
NNW	0	0	0	1	1	0	2
Variable	0	0	0	0	0	0	0
Total	0	0	0	2	1	0	3

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Moderately Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	3	0	0	0	3
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	2	0	2
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	1	0	0	1
SW	0	0	1	0	0	4	5
WSW	0	0	0	0	0	1	1
W	0	0	0	0	2	2	4
WNW	0	0	2	4	3	0	9
NW	0	0	0	4	0	0	4
NNW	0	0	1	4	1	0	6
Variable	0	0	0	0	0	0	0
Total	0	0	8	13	8	7	36

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
Stability Class - Slightly Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	3	2	0	0	5
NNE	0	0	2	0	0	0	2
NE	0	1	0	0	0	0	1
ENE	0	0	2	0	0	0	2
E	0	0	4	0	0	0	4
ESE	0	0	0	0	3	0	3
SE	0	0	2	0	1	0	3
SSE	0	0	3	3	1	0	7
S	0	0	6	0	0	0	6
SSW	0	1	0	2	0	1	4
SW	0	2	2	4	0	2	10
WSW	0	3	4	0	1	0	8
W	0	1	3	4	3	4	15
WNW	0	1	6	11	1	0	19
NW	0	0	2	14	2	3	21
NNW	0	0	3	3	0	0	6
Variable	0	0	0	0	0	0	0
Total	0	9	42	43	12	10	116

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Neutral - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	5	32	29	4	0	71
NNE	1	6	17	15	3	0	42
NE	1	7	29	29	6	0	72
ENE	3	10	45	20	3	0	81
E	1	8	26	23	9	1	68
ESE	4	1	21	29	9	3	67
SE	3	6	7	12	4	0	32
SSE	0	6	8	29	25	2	70
S	1	7	10	24	42	38	122
SSW	2	6	10	23	15	3	59
SW	0	5	8	17	3	1	34
WSW	0	6	10	7	14	3	40
W	0	5	9	62	28	31	135
WNW	1	2	22	82	52	8	167
NW	1	2	27	63	26	5	124
NNW	3	4	27	36	8	0	78
Variable	0	0	0	0	0	0	0
Total	22	86	308	500	251	95	1262

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 62
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Slightly Stable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	3	12	6	1	0	22
NNE	1	5	15	2	0	0	23
NE	0	5	6	5	0	0	16
ENE	1	2	5	4	0	0	12
E	0	2	3	15	0	0	20
ESE	0	0	3	11	3	0	17
SE	0	4	6	21	9	0	40
SSE	1	0	12	18	8	2	41
S	1	2	3	28	5	1	40
SSW	0	0	12	15	5	0	32
SW	0	0	10	20	11	4	45
WSW	0	3	6	13	15	4	41
W	0	2	6	22	7	0	37
WNW	0	0	18	28	8	1	55
NW	0	5	19	26	8	0	58
NNW	0	5	10	19	1	1	36
Variable	0	0	0	0	0	0	0
Total	4	38	146	253	81	13	535

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 4
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
 Stability Class - Moderately Stable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	4	1	0	0	7
NNE	0	0	4	0	0	0	4
NE	1	4	0	0	0	0	5
ENE	0	1	0	0	0	0	1
E	0	1	0	0	0	0	1
ESE	1	2	0	1	0	0	4
SE	0	4	3	8	0	0	15
SSE	0	0	4	3	0	0	7
S	1	0	1	2	0	0	4
SSW	1	0	1	4	7	0	13
SW	1	1	12	9	2	0	25
WSW	0	1	4	2	2	0	9
W	1	1	10	4	0	0	16
WNW	0	2	1	1	0	0	4
NW	1	1	3	1	0	0	6
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	7	20	47	36	11	0	121

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: January - March 2017
Stability Class - Extremely Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	2	1	0	0	5
NNE	0	1	0	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	1	0	0	0	0	1
E	1	0	0	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	1	0	0	0	0	0	1
S	1	0	0	0	0	0	1
SSW	0	0	1	0	0	0	1
SW	0	0	0	1	0	0	1
WSW	0	1	0	1	0	0	2
W	0	0	1	0	0	0	1
WNW	0	0	1	0	0	0	1
NW	0	0	2	0	0	0	2
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	3	5	7	3	0	0	18

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
Stability Class - Extremely Unstable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	1	5	6	0	0	12
NNE	0	1	3	1	0	0	5
NE	0	1	8	5	0	0	14
ENE	0	0	1	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	3	0	0	0	3
SE	0	1	2	0	0	0	3
SSE	0	0	0	1	0	0	1
S	0	0	0	5	0	0	5
SSW	0	1	2	4	1	0	8
SW	0	2	5	6	1	0	14
WSW	0	0	5	2	0	0	7
W	0	0	0	1	0	0	1
WNW	0	0	3	1	0	0	4
NW	0	0	6	1	0	0	7
NNW	0	4	10	1	0	0	15
Variable	0	0	0	0	0	0	0
Total	0	11	53	34	2	0	100

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Moderately Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	1	2	1	0	0	4
NNE	0	1	1	2	0	0	4
NE	0	1	7	1	0	0	9
ENE	0	1	0	0	0	0	1
E	0	0	1	0	0	0	1
ESE	0	3	1	0	0	0	4
SE	0	1	6	0	0	0	7
SSE	0	1	0	1	0	0	2
S	0	1	0	1	0	0	2
SSW	0	3	1	4	1	0	9
SW	0	1	2	1	0	0	4
WSW	0	1	6	5	0	0	12
W	0	1	4	2	0	0	7
WNW	0	1	4	1	0	0	6
NW	0	0	3	0	0	0	3
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	17	38	19	1	0	75

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Slightly Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	1	0	0	0	0	1
NNE	0	1	1	1	0	0	3
NE	0	3	3	0	0	0	6
ENE	0	1	0	0	0	0	1
E	0	1	2	0	0	0	3
ESE	0	3	2	0	0	0	5
SE	0	0	0	0	0	0	0
SSE	0	1	0	0	0	0	1
S	0	2	2	2	1	0	7
SSW	0	2	4	2	1	0	9
SW	0	5	1	0	0	0	6
WSW	1	0	8	3	0	0	12
W	0	2	7	8	0	0	17
WNW	0	2	4	5	0	0	11
NW	0	1	1	0	0	0	2
NNW	0	1	5	1	0	0	7
Variable	0	0	0	0	0	0	0
Total	1	26	40	22	2	0	91

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Neutral - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	5	12	6	2	0	0	25
NNE	1	6	22	5	4	0	38
NE	2	8	24	14	1	0	49
ENE	1	12	11	1	0	0	25
E	2	16	16	0	0	0	34
ESE	4	9	8	0	0	0	21
SE	1	15	15	0	0	0	31
SSE	0	11	11	6	0	0	28
S	0	6	10	14	7	0	37
SSW	7	7	17	18	6	0	55
SW	5	13	8	12	0	0	38
WSW	1	10	28	9	2	0	50
W	2	17	25	23	0	0	67
WNW	0	13	32	11	0	0	56
NW	3	3	6	3	0	0	15
NNW	3	1	9	7	0	0	20
Variable	0	0	0	0	0	0	0
Total	37	159	248	125	20	0	589

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Slightly Stable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	9	17	16	7	0	0	49
NNE	5	37	19	8	1	0	70
NE	10	43	41	12	1	1	108
ENE	10	55	10	0	0	0	75
E	6	49	30	0	0	0	85
ESE	4	18	17	1	0	0	40
SE	1	10	8	1	0	0	20
SSE	5	17	24	7	0	0	53
S	4	20	40	26	12	1	103
SSW	2	29	37	29	3	0	100
SW	5	21	7	6	2	0	41
WSW	6	11	22	10	0	0	49
W	5	36	15	5	0	0	61
WNW	3	17	36	3	0	0	59
NW	5	7	17	1	0	0	30
NNW	5	6	11	4	0	0	26
Variable	0	0	0	0	0	0	0
Total	85	393	350	120	19	2	969

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Moderately Stable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	3	3	0	0	0	0	6
NNE	4	4	4	0	0	0	12
NE	4	5	0	0	0	0	9
ENE	3	2	0	0	0	0	5
E	1	8	0	0	0	0	9
ESE	6	10	2	0	0	0	18
SE	3	7	3	0	0	0	13
SSE	6	7	0	0	0	0	13
S	3	15	0	0	0	0	18
SSW	3	15	2	0	0	0	20
SW	8	16	0	0	0	0	24
WSW	5	12	1	0	0	0	18
W	13	17	0	0	0	0	30
WNW	7	0	0	0	0	0	7
NW	9	7	0	0	0	0	16
NNW	3	12	0	0	0	0	15
Variable	0	0	0	0	0	0	0
Total	81	140	12	0	0	0	233

Hours of calm in this stability class: 4
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Extremely Stable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	2	0	0	0	0	0	2
NNE	1	1	0	0	0	0	2
NE	0	0	0	0	0	0	0
ENE	1	0	0	0	0	0	1
E	0	0	0	0	0	0	0
ESE	3	2	0	0	0	0	5
SE	0	2	0	0	0	0	2
SSE	3	2	1	0	0	0	6
S	2	1	0	0	0	0	3
SSW	10	2	0	0	0	0	12
SW	8	19	0	0	0	0	27
WSW	12	3	0	0	0	0	15
W	17	1	0	0	0	0	18
WNW	9	0	0	0	0	0	9
NW	8	0	0	0	0	0	8
NNW	8	4	0	0	0	0	12
Variable	0	0	0	0	0	0	0
Total	84	37	1	0	0	0	122

Hours of calm in this stability class: 1
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017

Stability Class - Extremely Unstable - 300Ft-35Ft Delta-T (F)

Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Moderately Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	3	0	1	4
NNE	0	0	0	1	2	0	3
NE	0	0	0	6	2	0	8
ENE	0	0	0	2	0	0	2
E	0	0	0	0	0	0	0
ESE	0	0	3	0	0	0	3
SE	0	0	0	1	0	0	1
SSE	0	0	0	0	0	0	0
S	0	0	0	0	3	0	3
SSW	0	0	1	1	0	0	2
SW	0	0	0	3	1	2	6
WSW	0	0	0	1	1	0	2
W	0	0	0	0	0	0	0
WNW	0	0	0	1	1	0	2
NW	0	0	1	1	0	0	2
NNW	0	0	4	4	1	0	9
Variable	0	0	0	0	0	0	0
Total	0	0	9	24	11	3	47

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Slightly Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	1	4	1	4	0	10
NNE	0	1	2	2	1	0	6
NE	0	0	4	13	2	0	19
ENE	0	0	0	1	0	0	1
E	0	1	1	2	0	0	4
ESE	0	1	4	2	0	0	7
SE	0	0	3	2	0	0	5
SSE	0	1	0	0	2	0	3
S	0	1	0	1	2	0	4
SSW	0	0	3	5	3	1	12
SW	0	2	1	3	5	2	13
WSW	0	0	2	12	6	1	21
W	0	1	2	9	6	0	18
WNW	0	0	1	9	6	0	16
NW	0	0	2	2	0	0	4
NNW	0	0	5	4	1	0	10
Variable	0	0	0	0	0	0	0
Total	0	9	34	68	38	4	153

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Neutral - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	9	9	5	4	4	32
NNE	2	8	14	15	11	6	56
NE	0	9	19	46	35	6	115
ENE	1	14	37	26	3	0	81
E	1	15	17	31	6	0	70
ESE	2	11	17	12	2	0	44
SE	0	7	16	9	0	0	32
SSE	1	5	16	6	5	2	35
S	1	7	9	13	20	15	65
SSW	3	6	6	24	18	19	76
SW	3	15	10	11	9	9	57
WSW	3	9	16	29	20	9	86
W	1	5	18	28	26	5	83
WNW	2	6	25	48	24	6	111
NW	0	5	8	12	6	0	31
NNW	1	4	3	17	6	5	36
Variable	0	0	0	0	0	0	0
Total	22	135	240	332	195	86	1010

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
Stability Class - Slightly Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	1	5	8	4	0	18
NNE	1	7	11	22	4	0	45
NE	1	5	18	27	0	2	53
ENE	2	20	21	6	0	0	49
E	1	10	14	18	0	0	43
ESE	0	5	15	12	8	0	40
SE	0	3	9	13	5	0	30
SSE	0	5	3	13	15	0	36
S	0	3	17	24	23	22	89
SSW	0	4	17	44	33	14	112
SW	0	6	10	26	4	2	48
WSW	0	5	10	13	6	0	34
W	0	1	17	26	0	0	44
WNW	0	3	5	26	4	0	38
NW	1	2	5	17	0	0	25
NNW	0	5	5	9	1	0	20
Variable	0	0	0	0	0	0	0
Total	6	85	182	304	107	40	724

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
 Stability Class - Moderately Stable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	3	2	4	0	0	10
NNE	0	4	2	1	0	0	7
NE	0	2	1	3	0	0	6
ENE	1	3	1	0	0	0	5
E	0	5	2	4	1	0	12
ESE	0	1	1	2	1	0	5
SE	1	2	6	6	2	0	17
SSE	0	4	7	2	0	0	13
S	0	4	1	4	2	0	11
SSW	1	3	1	3	1	0	9
SW	2	0	5	9	1	0	17
WSW	1	4	9	11	0	0	25
W	0	4	11	18	0	0	33
WNW	1	3	9	7	0	0	20
NW	0	1	4	1	0	0	6
NNW	2	2	5	4	0	0	13
Variable	0	0	0	0	0	0	0
Total	10	45	67	79	8	0	209

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: April - June 2017
Stability Class - Extremely Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	1	0	0	1
NNE	0	2	1	0	0	0	3
NE	1	2	0	0	0	0	3
ENE	1	1	0	0	0	0	2
E	0	2	0	0	0	0	2
ESE	1	1	0	0	0	0	2
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	1	1	0	0	0	2
SSW	0	1	0	0	0	0	1
SW	1	1	0	2	0	0	4
WSW	0	1	1	1	0	0	3
W	1	2	1	5	0	0	9
WNW	0	1	2	0	0	0	3
NW	0	0	2	0	0	0	2
NNW	0	0	3	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	5	15	12	9	0	0	41

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 0

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
 Stability Class - Extremely Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	7	0	0	0	7
NNE	0	0	2	0	0	0	2
NE	0	0	10	0	0	0	10
ENE	0	1	3	0	0	0	4
E	0	5	3	0	0	0	8
ESE	0	2	3	0	0	0	5
SE	0	2	0	0	0	0	2
SSE	0	1	2	0	0	0	3
S	0	0	3	0	0	0	3
SSW	0	1	5	0	0	0	6
SW	0	0	4	0	0	0	4
WSW	0	1	1	1	0	0	3
W	0	1	1	0	0	0	2
WNW	0	0	2	1	0	0	3
NW	0	0	0	1	0	0	1
NNW	0	3	8	0	0	0	11
Variable	0	0	0	0	0	0	0
Total	0	17	54	3	0	0	74

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
 Stability Class - Moderately Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	4	0	0	0	4
NNE	0	0	6	0	0	0	6
NE	0	1	5	0	0	0	6
ENE	0	0	2	0	0	0	2
E	0	2	0	0	0	0	2
ESE	1	2	1	0	0	0	4
SE	0	2	0	0	0	0	2
SSE	0	3	2	0	0	0	5
S	0	5	2	1	0	0	8
SSW	0	0	5	0	0	0	5
SW	0	1	2	2	0	0	5
WSW	0	4	4	2	0	0	10
W	0	1	4	0	0	0	5
WNW	0	2	3	0	0	0	5
NW	0	1	5	1	0	0	7
NNW	0	3	7	0	0	0	10
Variable	0	0	0	0	0	0	0
Total	1	27	52	6	0	0	86

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
 Stability Class - Slightly Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	6	1	1	0	0	8
NNE	0	5	1	3	0	0	9
NE	0	3	3	0	0	0	6
ENE	0	4	0	0	0	0	4
E	0	2	0	0	0	0	2
ESE	0	3	0	0	0	0	3
SE	0	1	2	0	0	0	3
SSE	1	4	3	0	0	0	8
S	1	2	1	1	0	0	5
SSW	0	2	4	0	0	0	6
SW	0	3	1	0	0	0	4
WSW	0	7	2	0	0	0	9
W	0	5	3	0	0	0	8
WNW	0	6	5	1	0	0	12
NW	0	5	6	0	0	0	11
NNW	0	3	4	0	0	0	7
Variable	0	0	0	0	0	0	0
Total	2	61	36	6	0	0	105

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017

Stability Class - Neutral - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	3	13	4	0	0	0	20
NNE	7	17	12	2	0	0	38
NE	4	19	17	1	0	0	41
ENE	2	20	1	0	0	0	23
E	4	15	2	0	0	0	21
ESE	5	23	3	0	0	0	31
SE	5	17	6	3	0	0	31
SSE	4	25	16	1	0	0	46
S	3	24	11	2	0	0	40
SSW	5	21	20	0	0	0	46
SW	4	15	7	4	0	0	30
WSW	5	27	5	1	0	0	38
W	6	26	21	5	0	0	58
WNW	4	17	23	0	0	0	44
NW	3	15	17	3	0	0	38
NNW	4	25	12	2	0	0	43
Variable	0	0	0	0	0	0	0
Total	68	319	177	24	0	0	588

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
Stability Class - Slightly Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	7	12	5	0	0	0	24
NNE	5	30	14	1	0	0	50
NE	7	56	11	0	0	0	74
ENE	13	55	2	0	0	0	70
E	8	49	2	0	0	0	59
ESE	6	41	0	0	0	0	47
SE	10	36	22	0	0	0	68
SSE	8	35	10	0	0	0	53
S	14	21	23	0	0	0	58
SSW	8	14	13	1	0	0	36
SW	8	13	3	0	0	0	24
WSW	5	16	8	0	0	0	29
W	10	27	17	0	0	0	54
WNW	9	28	8	0	0	0	45
NW	19	29	14	0	0	0	62
NNW	5	30	13	0	0	0	48
Variable	0	0	0	0	0	0	0
Total	142	492	165	2	0	0	801

Hours of calm in this stability class: 1
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
 Stability Class - Moderately Stable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	10	5	0	0	0	0	15
NNE	7	17	0	0	0	0	24
NE	6	5	0	0	0	0	11
ENE	4	1	0	0	0	0	5
E	6	4	0	0	0	0	10
ESE	9	16	1	0	0	0	26
SE	10	23	10	0	0	0	43
SSE	11	20	0	0	0	0	31
S	20	13	0	0	0	0	33
SSW	18	7	0	0	0	0	25
SW	13	28	0	0	0	0	41
WSW	9	5	1	0	0	0	15
W	13	6	0	0	0	0	19
WNW	14	10	0	0	0	0	24
NW	26	16	0	0	0	0	42
NNW	14	14	0	0	0	0	28
Variable	0	0	0	0	0	0	0
Total	190	190	12	0	0	0	392

Hours of calm in this stability class: 5
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
 Stability Class - Extremely Stable - 150Ft-35Ft Delta-T (P)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	5	0	0	0	0	0	5
NNE	1	0	0	0	0	0	1
NE	2	0	0	0	0	0	2
ENE	1	0	0	0	0	0	1
E	0	0	0	0	0	0	0
ESE	3	5	0	0	0	0	8
SE	4	2	2	0	0	0	8
SSE	1	3	0	0	0	0	4
S	7	1	0	0	0	0	8
SSW	11	1	0	0	0	0	12
SW	24	16	0	0	0	0	40
WSW	7	1	0	0	0	0	8
W	5	0	0	0	0	0	5
WNW	11	0	0	0	0	0	11
NW	15	0	0	0	0	0	15
NNW	16	2	0	0	0	0	18
Variable	0	0	0	0	0	0	0
Total	113	31	2	0	0	0	146

Hours of calm in this stability class: 7
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
Stability Class - Extremely Unstable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	2	0	0	2
SE	0	1	0	0	0	0	1
SSE	0	1	0	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	4

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
 Stability Class - Moderately Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	4	0	0	4
NNE	0	0	0	0	0	0	0
NE	0	0	1	4	0	0	5
ENE	0	0	2	0	0	0	2
E	0	0	5	0	0	0	5
ESE	0	0	1	1	0	0	2
SE	0	0	0	0	0	0	0
SSE	0	1	0	0	0	0	1
S	0	1	0	1	0	0	2
SSW	0	0	0	1	0	0	1
SW	0	0	0	3	0	0	3
WSW	0	0	1	0	0	0	1
W	0	0	0	0	0	0	0
WNW	0	0	0	1	0	0	1
NW	0	0	0	3	0	0	3
NNW	0	0	1	1	0	0	2
Variable	0	0	0	0	0	0	0
Total	0	2	11	19	0	0	32

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
 Stability Class - Slightly Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	1	6	2	0	0	9
NNE	0	1	1	6	0	0	8
NE	0	0	4	5	0	0	9
ENE	0	2	6	4	0	0	12
E	0	0	4	0	0	0	4
ESE	0	3	2	1	0	0	6
SE	0	2	1	0	0	0	3
SSE	0	3	3	0	0	0	6
S	0	2	4	1	0	0	7
SSW	0	0	10	2	0	0	12
SW	0	0	1	1	0	0	2
WSW	0	4	4	2	4	0	14
W	0	4	1	3	0	0	8
WNW	0	6	2	3	0	0	11
NW	0	1	5	3	2	0	11
NNW	0	3	11	6	0	0	20
Variable	0	0	0	0	0	0	0
Total	0	32	65	39	6	0	142

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
Stability Class - Neutral ~ 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	17	8	4	0	0	30
NNE	6	14	5	8	0	0	33
NE	4	21	16	23	3	0	67
ENE	2	19	24	8	0	0	53
E	3	13	13	2	0	0	31
ESE	0	20	9	3	0	0	32
SE	3	17	8	3	0	0	31
SSE	3	23	38	8	1	0	73
S	5	22	23	5	2	0	57
SSW	4	15	25	15	1	0	60
SW	5	14	16	11	2	0	48
WSW	4	24	20	7	1	0	56
W	4	18	17	16	10	0	65
WNW	3	20	31	20	2	0	76
NW	2	10	18	24	4	0	58
NNW	1	13	23	17	1	0	55
Variable	0	0	0	0	0	0	0
Total	50	280	294	174	27	0	825

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
Stability Class - Slightly Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	10	5	13	0	0	28
NNE	1	10	15	17	1	0	44
NE	1	5	27	35	3	0	71
ENE	1	28	39	7	0	0	75
E	1	13	26	13	0	0	53
ESE	0	13	24	23	1	0	61
SE	2	6	19	35	4	0	66
SSE	2	13	20	32	0	0	67
S	1	9	24	14	2	0	50
SSW	1	9	17	16	7	0	50
SW	1	7	12	13	2	1	36
WSW	2	9	6	12	0	0	29
W	4	7	13	21	2	0	47
WNW	3	6	15	9	2	0	35
NW	0	8	19	25	1	0	53
NNW	1	5	13	15	0	0	34
Variable	0	0	0	0	0	0	0
Total	21	158	294	300	25	1	799

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
 Stability Class - Moderately Stable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	1	4	9	0	0	14
NNE	0	4	4	2	0	0	10
NE	0	4	10	10	0	0	24
ENE	2	1	6	1	0	0	10
E	2	5	3	1	0	0	11
ESE	0	2	1	7	0	0	10
SE	0	5	6	7	2	0	20
SSE	2	5	9	17	2	0	35
S	1	1	17	16	0	0	35
SSW	0	3	15	10	4	0	32
SW	2	1	14	10	1	0	28
WSW	0	5	10	13	0	1	29
W	1	3	10	3	0	0	17
WNW	1	4	9	2	2	0	18
NW	0	0	11	10	0	0	21
NNW	1	3	7	7	0	0	18
Variable	0	0	0	0	0	0	0
Total	12	47	136	125	11	1	332

Hours of calm in this stability class: 1
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: July - September 2017
Stability Class - Extremely Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	0	0	0	0	2
NNE	0	1	2	2	0	0	5
NE	0	1	5	0	0	0	6
ENE	0	3	0	0	0	0	3
E	2	1	0	0	0	0	3
ESE	0	1	0	0	0	0	1
SE	0	0	0	2	0	0	2
SSE	2	0	1	1	0	0	4
S	0	0	4	0	0	0	4
SSW	0	0	0	0	2	0	2
SW	0	0	0	5	0	0	5
WSW	1	0	1	2	0	0	4
W	0	1	5	5	0	0	11
WNW	0	3	4	0	0	0	7
NW	0	3	4	0	0	0	7
NNW	0	2	2	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	5	18	28	17	2	0	70

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Extremely Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	1	0	0	1
S	0	0	1	1	0	0	2
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	0	1	2	0	0	3

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Moderately Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	2	1	0	0	0	3
SSE	0	0	3	1	0	0	4
S	0	0	1	1	0	0	2
SSW	0	0	0	0	0	0	0
SW	0	0	0	2	0	0	2
WSW	0	0	1	0	0	0	1
W	0	0	0	0	0	0	0
WNW	0	0	1	1	0	0	2
NW	0	0	0	1	0	0	1
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	2	7	6	0	0	15

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Slightly Unstable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	1	0	0	0	1
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	1	0	0	0	0	1
SSE	0	0	2	0	0	0	2
S	0	0	2	2	0	0	4
SSW	0	1	0	1	1	0	3
SW	0	0	2	1	0	0	3
WSW	0	0	4	1	0	0	5
W	0	0	3	1	0	0	4
WNW	0	0	1	4	0	0	5
NW	0	0	4	5	0	0	9
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	2	19	15	1	0	37

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
Stability Class - Neutral - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	10	7	1	0	0	19
NNE	0	9	14	1	0	0	24
NE	1	11	9	1	0	0	22
ENE	2	9	1	0	0	0	12
E	3	8	3	0	0	0	14
ESE	1	5	8	0	0	0	14
SE	3	3	7	2	0	0	15
SSE	1	6	19	10	0	0	36
S	1	9	21	16	5	1	53
SSW	1	7	14	10	3	0	35
SW	2	6	5	7	1	0	21
WSW	1	10	14	8	0	0	33
W	0	14	27	18	6	0	65
WNW	2	5	29	13	0	0	49
NW	0	3	8	13	1	0	25
NNW	0	11	11	3	2	0	27
Variable	0	0	0	0	0	0	0
Total	19	126	197	103	18	1	464

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
Stability Class - Slightly Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	4	30	28	4	0	0	66
NNE	2	13	14	1	0	0	30
NE	7	33	13	2	0	0	55
ENE	7	28	4	0	0	0	39
E	6	25	8	1	0	0	40
ESE	6	9	8	2	0	0	25
SE	2	22	29	3	1	0	57
SSE	6	58	55	22	1	0	142
S	5	38	47	37	9	4	140
SSW	3	28	41	13	2	0	87
SW	4	30	33	4	0	0	71
WSW	4	12	23	17	1	0	57
W	6	27	87	25	4	0	149
WNW	6	41	59	19	0	0	125
NW	9	35	52	22	5	0	123
NNW	8	50	29	17	1	0	105
Variable	0	0	0	0	0	0	0
Total	85	479	530	189	24	4	1311

Hours of calm in this stability class: 1
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Moderately Stable - 150Ft-35Ft Delta-T (F)
 Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	3	0	0	0	0	0	3
NNE	0	1	0	0	0	0	1
NE	2	0	0	0	0	0	2
ENE	1	0	0	0	0	0	1
E	5	4	0	0	0	0	9
ESE	4	12	4	0	0	0	20
SE	6	15	3	0	0	0	24
SSE	6	12	1	0	0	0	19
S	10	28	5	0	0	0	43
SSW	12	29	2	0	0	0	43
SW	8	14	8	0	0	0	30
WSW	4	5	0	0	0	0	9
W	7	9	0	0	0	0	16
WNW	12	21	1	0	0	0	34
NW	12	16	1	0	0	0	29
NNW	3	6	0	0	0	0	9
Variable	0	0	0	0	0	0	0
Total	95	172	25	0	0	0	292

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
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Dresden Generating Station

Period of Record: October - December 2017
Stability Class - Extremely Stable - 150Ft-35Ft Delta-T (F)
Winds Measured at 35 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	0	1	0	0	0	2
NNE	1	0	0	0	0	0	1
NE	1	0	0	0	0	0	1
ENE	4	0	0	0	0	0	4
E	7	0	0	0	0	0	7
ESE	0	4	0	0	0	0	4
SE	0	1	0	0	0	0	1
SSE	2	0	0	0	0	0	2
S	2	1	0	0	0	0	3
SSW	10	4	0	0	0	0	14
SW	10	8	0	0	0	0	18
WSW	2	0	0	0	0	0	2
W	1	0	0	0	0	0	1
WNW	6	0	0	0	0	0	6
NW	6	3	0	0	0	0	9
NNW	0	5	0	0	0	0	5
Variable	0	0	0	0	0	0	0
Total	53	26	1	0	0	0	80

Hours of calm in this stability class: 2
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Extremely Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
 2017 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Moderately Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	1	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	1

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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 January through December 2017

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

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Slightly Unstable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	1	0	0	0	0	1
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	2	0	1	0	0	3
SSE	0	0	0	3	1	0	4
S	0	0	0	4	1	0	5
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	2	0	2
WSW	0	0	0	5	1	0	6
W	0	0	2	3	4	1	10
WNW	0	0	4	7	1	0	12
NW	0	0	3	6	4	0	13
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	0	3	10	29	14	1	57

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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 January through December 2017

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Neutral - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	13	24	21	2	4	64
NNE	0	7	18	21	3	0	49
NE	0	7	22	20	6	0	55
ENE	1	12	28	4	0	0	45
E	3	8	24	6	1	0	42
ESE	2	6	9	7	4	0	28
SE	0	5	8	11	1	0	25
SSE	0	7	26	29	13	2	77
S	0	8	18	44	17	25	112
SSW	0	12	14	26	18	6	76
SW	3	10	13	18	11	10	65
WSW	2	9	19	19	18	5	72
W	1	15	17	47	30	15	125
WNW	0	10	20	71	45	9	155
NW	0	6	25	39	34	8	112
NNW	0	6	28	32	18	13	97
Variable	0	0	0	0	0	0	0
Total	12	141	313	415	221	97	1199

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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METEOROLOGICAL DATA
 DOCKET NUMBERS: 50-010/50-237/50-249

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

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Slightly Stable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	8	10	17	0	0	35
NNE	2	6	7	10	0	0	25
NE	0	2	4	3	0	0	9
ENE	1	2	2	2	0	0	7
E	1	7	2	6	0	0	16
ESE	2	7	5	7	1	0	22
SE	0	9	7	14	4	0	34
SSE	0	5	23	28	14	1	71
S	1	8	17	26	33	14	99
SSW	0	5	15	32	21	9	82
SW	1	8	15	43	20	1	88
WSW	0	6	8	21	5	1	41
W	2	3	10	24	14	2	55
WNW	0	4	10	27	8	0	49
NW	1	7	6	29	5	0	48
NNW	0	3	13	21	0	0	37
Variable	0	0	0	0	0	0	0
Total	11	90	154	310	125	28	718

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

DRESDEN NUCLEAR POWER STATION
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Facility: Dresden Nuclear Power Station Units 1,2,3

Licensee: Exelon Nuclear

Dresden Generating Station

Period of Record: October - December 2017
Stability Class - Moderately Stable - 300Ft-35Ft Delta-T (F)
Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	1	4	0	0	5
NNE	0	0	2	2	0	0	4
NE	0	0	0	1	0	0	1
ENE	1	0	0	0	0	0	1
E	0	1	0	0	0	0	1
ESE	0	2	0	0	3	0	5
SE	0	1	2	7	3	0	13
SSE	1	1	7	5	0	0	14
S	0	0	4	9	1	0	14
SSW	0	1	3	7	9	0	20
SW	0	4	10	17	0	0	31
WSW	0	2	6	9	0	0	17
W	1	1	7	3	0	0	12
WNW	1	1	2	2	0	0	6
NW	0	1	4	3	1	0	9
NNW	0	2	5	5	0	0	12
Variable	0	0	0	0	0	0	0
Total	4	17	53	74	17	0	165

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 0
Hours of missing stability measurements in all stability classes: 3

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Dresden Generating Station

Period of Record: October - December 2017
 Stability Class - Extremely Stable - 300Ft-35Ft Delta-T (F)
 Winds Measured at 300 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	7	0	0	0	7
NNE	0	0	1	0	0	0	1
NE	1	0	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	1	1	0	0	0	0	2
ESE	0	1	0	0	0	0	1
SE	0	3	0	0	0	0	3
SSE	0	2	0	0	0	0	2
S	0	4	0	0	0	0	4
SSW	1	2	0	4	2	0	9
SW	2	1	2	9	2	0	16
WSW	0	0	2	1	0	0	3
W	2	3	1	2	0	0	8
WNW	1	0	1	1	0	0	3
NW	0	1	1	0	0	0	2
NNW	1	2	0	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	9	20	15	17	4	0	65

Hours of calm in this stability class: 0
 Hours of missing wind measurements in this stability class: 0
 Hours of missing stability measurements in all stability classes: 3

Attachment 1

Dresden Station Offsite Dose Calculation Manual
Revision 13