

DRESDEN NUCLEAR POWER STATION DOCKET NOS. 50-10, 50-237, 50-249

REGULATORY LIMITS

Gaseous Effluents - Dose

This Specification is provided to ensure that the dose at the unrestricted area boundary from gaseous effluents from the units on site will be within the annual dose limits of 10 CFR Part 20 for unrestricted areas. The annual dose limits are the doses associated with the concentrations of 10 CFR Part 20, Appendix B, Table II. These limits provide reasonable assurance that radioactive material discharged in gaseous effluents will not result in the exposure of an individual in an unrestricted area to annual average concentrations exceeding the limits specified in Appendix B, Table II of 10 CFR Part 20 (10 CFR Part 20.106(b)). The specified release rate limits restrict, at all times, the corresponding gamma and beta dose rates above background to an individual at or beyond the unrestricted area boundary to less than or equal to 500 mrem/year to the total body or to less than or equal to 1000 mrem/year to the skin. These release rate limits also restrict, at all times, the corresponding thyroid dose rate above background to a child via the inhalation pathway to less than or equal to 1500 mrem/year. For purposes of calculating doses resulting from airborne releases, the main chimney is considered to be an elevated release point and the reactor building vent stack is considered to be a mixed mode release point.

Dose, Noble Gases

This Specification is provided to implement the requirements of Sections II.B, III.A and IV.A of Appendix I, 10 CFR Part 50. The Limiting Conditions For Operation implement the guides set forth in Section II.3 of Appendix I. The statements provide the required operating flexibility and at the same time implement the guides set forth in Section IV.A of Appendix I to assure that the releases of radioactive material in gaseous effluents will be kept "as low as is reasonably achievable." The Surveillance Requirements implement the requirements in Section III.A of Appendix I that conformance with the guides of Appendix I is to be shown by calculational procedures based on models and data such that the actual exposure of an individual through the appropriate pathways is unlikely to be substantially underestimated. The dose calculations established in the ODCM for calculating the doses due to the actual release rates of radioactive noble gases in gaseous effluents will be consistent with the methodology provided in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR

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REGULATORY LIMITS**

Dose, Noble Gases (continued)

Part 50, Appendix I," Revision 1, October 1977 and Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water Cooled Reactors," Revision 1, July 1977. The ODCM equations provide for determining the air doses at the unrestricted boundary based upon the historical average atmospheric conditions. NUREG-0133 provides methods for dose calculations consistent with Regulatory Guides 1.109 and 1.111.

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Dose, Radiiodines, Radioactive Material in Particulate Form and Radionuclides Other than Noble Gases

This specification is provided to implement the requirements of Sections II.C, III.A and IV.A of Appendix I, 10 CFR Part 50. The Limiting Conditions for Operation are the guides set forth in Section II.C of Appendix I. The statements provide the required operating flexibility and at the same time implement the guides set forth in Section IV.A of Appendix I to assure that the releases of radioactive materials in gaseous effluents will be kept "as low as reasonably achievable." The ODCM calculational methods specified in the surveillance requirements implement the requirements in Section III.A of Appendix I that conformance with the guides of Appendix I be shown by calculational procedures based on models and data such that the actual exposure of an individual through appropriate pathways is unlikely to be substantially underestimated. The ODCM calculational methods approved by NRC for calculating the doses due to the actual release rates of the subject materials are required to be consistent with the methodology provided in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I", Revision 1, October 1977 and Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors," Revision 1, July 1977. These equations also provide for determining the actual doses based upon the historical average atmospheric conditions. The release rate specifications for radiiodines, radioactive material in particulate form and radionuclides other than noble gases are dependent on the existing radionuclide pathways to man, in the unrestricted area. The pathways which were examined in the development of these specifications were: 1) individual inhalation of airborne radionuclides, 2) deposition of radionuclides onto green leafy vegetation with subsequent consumption by man and 3) deposition onto grassy areas where milk animals graze with consumption of the milk by man.

Gaseous Waste Treatment

The OPERABILITY of the gaseous waste treatment which reduces amounts or concentrations of radioactive materials ensures that the system will be available for use whenever gaseous effluents require treatment prior to release to the environment. The requirement that the appropriate portions of this system be operable when specified provides reasonable assurance that the releases of radioactive materials in gaseous effluents will be kept "as low as reasonably achievable". This specification implements the requirements of 10 CFR Part 50.36a, General Design Criterion 60 of Appendix A to 10 CFR Part 50, and design objective Section II.D of Appendix I to 10 CFR Part 50.

LIQUID EFFLUENTS

Concentration

This specification is provided to ensure the concentration of radioactive materials released in liquid waste effluents from the site to unrestricted areas will be less than the concentration levels specified in 10 CFR Part 20, Appendix B, Table II, Column 2. The concentration limit for noble gases, MPC in air (submersion), was converted to an equivalent concentration in water using the International Commission on Radiological Protection (ICRP) Publication 2.

Dose

This specification is provided to implement the requirements of Sections II.A, III.A and IV.A of Appendix I, 10 CFR Part 50. The Limiting Condition for Operation implements the guides set forth in Section II.A of Appendix I. The statements provide the required operating flexibility and at the same time implement the guides set forth in Section IV.A of Appendix I to assure that the releases of radioactive material in liquid effluents will be kept "as low as reasonably achievable". The dose calculations in the ODCM implement the requirements in Section III.A of Appendix I that conformance with the guides of Appendix I be shown by calculational procedures based on models and data such that the actual exposure of an individual through appropriate pathways is unlikely to be substantially underestimated. The equations specified in the ODCM for calculating the doses due to the actual release rates of radioactive materials in liquid effluents will be consistent with the methodology provided in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I", Revision 1, October 1977 and Regulatory Guide 1.113, "Estimating Aquatic Dispersion of Effluents from Accidental and Routine Reactor Releases for the Purpose of Implementing Appendix I", April 1977. NUREG-0113 provides methods for dose calculations with Reg Guide 1.109 and 1.113.

Liquid Waste Treatment

The operability of the liquid radwaste treatment system ensures that this system will be available for use whenever liquid effluents require treatment prior to release to the environment. The requirement that the appropriate portions of this system be used when specified provides assurance that the releases of radioactive materials in liquid effluents will be kept "as low as reasonably achievable". This specification implements the requirements of 10 CFR Part 50 and design objective Section II.D of Appendix I to 10 CFR Part 50.

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MAXIMUM PERMISSIBLE CONCENTRATIONS (MPC)

The concentration of radioactive materials released in gaseous and liquid effluents from the site to unrestricted areas will be less than the concentration levels specified in 10 CFR Part 20, Appendix B, Table II, Columns 1 and 2. The concentration limit for noble gases, MPC in air (submersion), was converted to an equivalent concentration in water using the International Commission on Radiological Protection (ICRP) Publication 2.

MAXIMUM PERMISSIBLE CONCENTRATION OF DISSOLVED
OR ENTRAINED NOBLE GASES RELEASED FROM
THE SITE TO UNRESTRICTED AREAS
IN LIQUID WASTE

<u>NUCLIDE</u>	<u>MPC(uCi/ml)*</u>
Kr-85m	2.0E-04
Kr-85	5.0E-04
Kr-87	4.0E-05
Kr-88	9.0E-05
Ar-41	7.0E-05
Xe-131m	7.0E-04
Xe-133m	5.0E-04
Xe-133	6.0E-04
Xe-135m	2.0E-04
Xe-135	2.0E-04

- * Computed from Equation 20 of ICRP Publication 2 (1959), adjusted for infinite cloud submersion in water, and $R = 0.01$ rem/week, density = 1.0 g/cc and $P_w/P_t = 1.0$.

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AVERAGE ENERGY

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

$$E_0 = 3.75E-01 \text{ MeV/dis}$$

$$E_\beta = 2.97E-01 \text{ MeV/dis}$$

EQUIPMENT OUT-OF-SERVICE:

The Units, 2 and 3 Main Chimney SPING (System Particulate Iodine Noble Gas Monitor) was out of service from January 29, 1992 to February 29, 1992. This was due to calibration work on the SPING. The 2/3 Chimney G.E. Radiation Monitors and the respective Iodine and particulate samplers were utilized during this period.

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MEASUREMENTS AND APPROXIMATIONS

- A. Fission and activation gases: The D-1 Chimney, D2/3 Chimney, and D2/3 Reactor Building Vent are sampled weekly via a grab sample. The samples are analyzed for specific isotopes present in the release using a Hyper-Pure Germanium (HP Ge) Spectrometry System. Tritium is sampled monthly via a grab sample on the D-1 Chimney, D2/3 Chimney, and D2/3 Reactor Building Vent and analyzed using a Liquid Scintillation Counter. Krypton-85 is estimated in the D2/3 Chimney using a recoil or non-recoil calculation using the fission per second plot and the sum of Kr-85m, Kr-87, Kr-88, Xe-133, Xe-135, and Xe 138 activities present in Reactor Off-Gas.
- B. Iodine and Particulate: Iodine and particulate samples from the D-1 Chimney, D2/3 Chimney and the D2/3 Reactor Building Vent are collected for a maximum seven day period. These samples are analyzed for specific nuclides present in the release using a HP Ge spectrometry system. When iodine or particulate samples are not used for reporting the release rate due to management decision that the sample may not be representative, an average of the preceding sample and the following sample is used to calculate the release. A monthly composite of the particulate samples is sent to a vendor to be analyzed for Fe-55, Sr-89, Sr-90, and Gross Alpha activity.
- C. Liquid Effluents: Analyzed for specific isotopes present in the release using a HP Ge spectrometry system. A composite of all batches for the month is sent to a vendor to be analyzed for Sr-89, Sr-90, Fe-55, H-3, and Gross Alpha activity. A sample of each Containment Cooling Service Water (CCSW) system is analyzed each month for specific isotopes present in the release using a HP Ge spectrometry system. A sample of each CCSW system is sent each month to a vendor to be analyzed for Sr-89, Sr-90, Fe-55, H-3, and Gross Alpha activity.
- D. Estimation of Overall Errors: The methods used for estimating overall errors associated with radioactivity measurements vary with discharge path and form of isotopes. Factors that contribute to the error include such items as calibration of counting equipment, counting statistics, sampling error, discharge volume, and flow rate monitors.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through June 1992

GASEOUS EFFLUENTS Docket Numbers: 50-10
50-237
SUMMATION OF ALL RELEASES 50-249

TYPE OF RELEASE	UNITS	1st QUARTER	2nd QUARTER	EST. TOTAL ERROR
FISSION AND ACTIVATION GASES				
1. Total Release	CI	7.69E+03	1.09E+00	7.31
2. Average Release Rate for Period	uCi/sec	9.78E-01	1.39E-01	
3. Percent of Technical Specification Limit	%	"	"	
B. IODINES				
1. Total Iodine-131	CI	2.18E-07	1.18E-04	9.51
2. Average Release Rate of I-131 for Period	uCi/sec	2.77E-08	1.50E-05	
3. Percent of Technical Specification Limit	%	"	"	
4. Total Iodine-131, Iodine-133, and Iodine-135	CI	2.87E-04	1.39E-03	
C. PARTICULATES				
1. Particulates with half-lives > 8 days	CI	6.40E-03	9.56E-03	8.09
2. Average Release Rate for Period	uCi/sec	8.14E-04	1.22E-03	
3. Percent of Technical Specification Limit	%	"	"	
4. Gross Alpha Radioactivity	CI	3.95E-06	LLO	
D. TRITIUM				
1. Total Release	CI	6.17E-01	1.51E+00	7.29
2. Average Release Rate for Period	uCi/sec	7.84E-02	1.92E-01	
3. Percent of Technical Specification Limit	%	"	"	

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

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT
January Through June 1992

GASEOUS EFFLUENTS
SUMMATION OF ALL RELEASES

Docket Numbers: 50-10
50-237
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LLD (uCi/cc)

1. FISSION GASES

Xe-138	1.60E-07
Xe-135m	9.90E-08
Kr-87	4.40E-08
Kr-88	5.40E-08
Kr-85m	1.80E-08
Kr-85	5.10E-06
Xe-135	1.60E-08
Xe-133	4.40E-08
Ar-41	2.50E-08
Xe-133m	1.50E-07

2. IODINES

I-131	7.90E-13
I-133	3.40E-12
I-135	4.70E-10

3. PARTICULATES

Sr-89	1.60E-14
Sr-90	3.00E-15
Cr-51	5.40E-12
Mn-54	6.80E-13
Co-58	8.00E-13
Fe-55	3.00E-14
Fe-59	1.60E-12
Co-60	1.40E-12
Zr-95	1.40E-12
Nb-95	7.10E-13
Mo-99	7.40E-13
Ru-103	7.20E-13
Ag-110m	6.10E-13
Sb-124	5.70E-13
I-131	7.70E-13
Cs-134	6.80E-13
Cr-136	7.30E-13
Cs-137	7.60E-13
Ba-140	3.10E-12
La-140	1.10E-12
Ce-141	9.92E-13
Ce-144	3.80E-12
Zn-65	1.70E-12
Ba-133	7.20E-13
Sb-125	1.90E-12
Others:	

Gross Alpha 1.2E-14

DRESDEN NUCLEAR POWER STATION
UNIT 1
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
JANUARY Through JUNE 1992

D1 Chimney GASEOUS EFFLUENTS

GROUND LEVEL RELEASES

SEMI-ELEVATED RELEASES

Docket Number: 50-10

XX ELEVATED RELEASES

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		1st QUARTER	2nd QUARTER	1st QUARTER	2nd QUARTER
FISSION GASES					
Xe-138	CA	.	.		
Xe-135m	CA	.	.		
Kr-87	CA	.	.		
Kr-88	CA	.	.		
Kr-85m	CA	.	.		
Kr-85	CA	.	.		
Xe-135	CA	.	.		
Xe-133	CA	.	.		
TOTAL	CA			NONE	NONE
IODINES					
I-131	CA	.	.		
I-133	CA	.	.		
I-135	CA	.	.		
TOTAL	CA			NONE	NONE
PARTICULATES					
Sr-89	CA	1.88E-07	1.75E-07		
Sr-90	CA	8.19E-08	.		
Cr-51	CA	.	.		
Mn-54	CA	.	.		
Co-58	CA	.	.		
Fe-59	CA	.	.		
Co-60	CA	2.79E-06	2.25E-06		
Zr-95	CA	.	.		
Nb-95	CA	.	.		
Mo-99	CA	.	.		
Ru-101	CA	.	.		
Ag-110m	CA	.	.		
Sb-124	CA	.	.		
I-131	CA	.	.		
Cs-134	CA	.	.		
Cs-136	CA	.	.		
Cs-137	CA	6.79E-06	1.81E-06		
Ba-140	CA	.	.		
La-140	CA	.	.		
Ce-141	CA	.	.		
Ce-144	CA	.	.		
Zn-65	CA	.	.		
Ba-133	CA	.	.		
Sb-125	CA	.	.		
Fe-55	CA	.	1.09E-06		
TOTAL	CA	1.00E-05	9.33E-06	NONE	NONE

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

DRESDEN NUCLEAR POWER STATION
UNIT 1 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through March 1992

01 Chimney GASEOUS EFFLUENTS
GROUND LEVEL RELEASES

Docket Number: 50-10

 SEMI-ELEVATED RELEASES

XX ELEVATED RELEASES

CONTINUOUS MODE					
NUCLIDES RELEASED	UNIT	JANUARY	FEBRUARY	MARCH	1st QUARTER TOTAL
FISSION GASES					
Xe-138	CI	.	.	.	.
Xe-135m	CI	.	.	.	.
Kr-87	CI	.	.	.	.
Kr-88	CI	.	.	.	.
Kr-85m	CI	.	.	.	.
Kr-85	CI	.	.	.	.
Xe-135	CI	.	.	.	.
Xe-133	CI	.	.	.	.
TOTAL	CI	.	.	.	.
IODINES					
I-131	CI	.	.	.	.
I-133	CI	.	.	.	.
I-135	CI	.	.	.	.
TOTAL	CI	.	.	.	.
PARTICULATES					
Sr-89	CI	6.29E-08	1.90E-08	2.86E-07	1.88E-07
Sr-90	CI	4.91E-09	4.40E-08	1.30E-08	8.19E-08
Cr-51	CI	.	.	.	.
Mn-54	CI	.	.	.	.
Co-58	CI	.	.	.	.
Fe-59	CI	.	.	.	.
Co-60	CI	.	1.53E-06	1.26E-06	2.79E-06
Zr-95	CI	.	.	.	.
Nb-95	CI	.	.	.	.
Mo-99	CI	.	.	.	.
Ru-103	CI	.	.	.	.
Ag-110m	CI	.	.	.	.
Sb-124	CI	.	.	.	.
I-131	CI	.	.	.	.
Cs-134	CI	.	.	.	.
Cs-136	CI	.	.	.	.
Cs-137	CI	2.17E-06	4.62E-06	.	6.79E-06
Ba-140	CI	.	.	.	.
La-140	CI	.	.	.	.
Ce-141	CI	.	.	.	.
Ce-144	CI	.	.	.	.
Zn-65	CI	.	.	.	.
Ba-133	CI	.	.	.	.
Sb-125	CI	.	.	.	.
Fe-55	CI	.	.	.	.
TOTAL	CI	2.24E-06	6.23E-06	1.58E-06	1.00E-05

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

DRESDEN NUCLEAR POWER STATION
UNIT 1
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT
April Through June 1992

D1 Chimney GASEOUS EFFLUENTS

GROUND LEVEL RELEASES

SEMI-ELEVATED RELEASES

XX ELEVATED RELEASES

Docket Number: 50-10

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE			
		APRIL	MAY	JUNE	2nd QUARTER TOTAL
FISSION GASES					
Xe-138	CI	.	.	.	.
Xe-135m	CI	.	.	.	.
Kr-87	CI	.	.	.	.
Kr-88	CI	.	.	.	.
Kr-85m	CI	.	.	.	.
Kr-85	CI	.	.	.	.
Xe-135	CI	.	.	.	.
Xe-133	CI	.	.	.	.
TOTAL	CI				
IODINES					
I-131	CI	.	.	.	.
I-133	CI	.	.	.	.
I-135	CI	.	.	.	.
TOTAL	CI				
PARTICULATES					
Sr-89	CI	1.46E-07	2.91E-08	.	1.75E-07
Sr-90	CI	.	.	.	.
Cr-51	CI	.	.	.	.
Mn-54	CI	.	.	.	.
Co-58	CI	.	.	.	.
Fe-59	CI	.	.	.	.
Co-60	CI	2.25E-06	.	.	2.25E-06
Zr-95	CI	.	.	.	.
Nb-95	CI	.	.	.	.
Ru-103	CI	.	.	.	.
Ag-110m	CI	.	.	.	.
Sb-124	CI	.	.	.	.
I-131	CI	.	.	.	.
Cs-134	CI	.	.	.	.
Cs-136	CI	.	.	.	.
Cs-137	CI	2.38E-06	.	1.43E-06	3.81E-06
Ba-140	CI	.	.	.	.
La-140	CI	.	.	.	.
Ce-141	CI	.	.	.	.
Ce-144	CI	.	.	.	.
Zn-65	CI	.	.	.	.
Rb-133	CI	.	.	.	.
Sb-125	CI	.	.	.	.
Fe-55	CI	9.13E-07	1.96E-06	2.16E-07	3.07E-06
TOTAL	CI	5.69E-06	1.96E-06	1.65E-06	9.31E-06

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 and 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through June 1992

D2/3 Chimney GASEOUS EFFLUENTS

GROUND LEVEL RELEASES

SEMI-ELEVATED RELEASES

Docket Numbers: 50-237
50-249

XX ELEVATED RELEASES

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		1st QUARTER	2nd QUARTER	1st QUARTER	2nd QUARTER
FISSION GASES					
Xe-138	CA	.	.		
Xe-135m	CA	1.75E+00	.		
Kr-87	CA	7.22E-01	.		
Kr-88	CA	6.92E-02	.		
Kr-85m	CA	1.31E-01	.		
Kr-85	CA	1.15E-04	4.69E-04		
Xe-135	CA	2.64E+00	1.09E+00		
Xe-133	CA	3.81E-01	.		
TOTAL	CA	7.69E+00	1.09E+00	None	None
IODINES					
I-131	CA	.	9.95E-05		
I-133	CA	1.95E-04	1.05E-03		
I-135	CA	.	.		
TOTAL	CA	1.95E-04	1.15E-03	None	None
PARTICULATES					
Sr-89	CA	1.16E-05	1.47E-05		
Sr-90	CA	5.95E-07	7.66E-07		
Sr-91	CA	.	.		
Mn-54	CA	1.28E-04	1.21E-04		
Co-58	CA	.	.		
Fe-59	CA	.	.		
Co-60	CA	2.67E-04	2.79E-04		
Zr-95	CA	.	.		
Nb-95	CA	.	.		
Ru-103	CA	.	.		
Ag-110m	CA	.	.		
Sb-124	CA	.	.		
I-131	CA	.	.		
Ce-134	CA	.	.		
Ce-136	CA	.	.		
Ce-137	CA	2.05E-05	2.04E-05		
Ba-140	CA	.	.		
La-140	CA	.	.		
Ce-141	CA	.	.		
Ce-144	CA	.	.		
Zn-65	CA	.	.		
Ba-133	CA	.	.		
Sb-125	CA	.	.		
Fe-55	CA	9.56E-04	1.47E-03		
TOTAL	CA	1.38E-03	1.93E-03	None	None

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through March 1992

D2/3 Chimney GASEOUS EFFLUENTS

GROUND LEVEL RELEASES

SEMI-ELEVATED RELEASES

Docket Numbers: 50-237
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XX ELEVATED RELEASES

		CONTINUOUS MODE			
NUCLIDES RELEASED	UNIT	JANUARY	FEBRUARY	MARCH	1st QUARTER TOTAL
FISSION GASES					
Xe-138	CA	.	.	.	.
Xe-135m	CA	.	.	3.75E-00	3.75E-00
Kr-87	CA	.	7.22E-01	.	7.22E-01
Kr-90	CA	.	6.92E-02	.	6.92E-02
Kr-85m	CA	.	1.31E-01	.	1.31E-01
Kr-85	CA	.	3.86E-05	7.61E-05	1.15E-04
Xe-132	CA	.	1.87E-00	7.71E-01	2.64E-00
Xe-133	CA	.	3.46E-02	3.46E-01	3.81E-01
TOTAL	CA	.	2.83E-00	4.87E-00	7.69E-00
IODINES					
I-131	CA	.	.	.	.
I-133	CA	.	7.75E-05	1.17E-04	1.95E-04
I-135	CA	.	.	.	.
TOTAL	CA	.	7.75E-05	1.17E-04	1.95E-04
PARTICULATES					
Sr-89	CA	6.72E-07	6.18E-06	4.77E-06	1.16E-05
Sr-90	CA	1.90E-07	2.68E-07	1.37E-07	5.95E-07
Cr-51	CA	.	.	.	.
Mn-54	CA	1.54E-05	6.15E-05	5.10E-05	1.26E-04
Co-58	CA	.	.	.	.
Fe-59	CA	.	.	.	.
Co-60	CA	3.27E-05	8.77E-05	1.47E-04	2.67E-04
Zr-95	CA	.	.	.	.
Nb-95	CA	.	.	.	.
Ru-103	CA	.	.	.	.
Ag-110m	CA	.	.	.	.
Sb-124	CA	.	.	.	.
I-131	CA	.	.	.	.
Ce-134	CA	.	.	.	.
Ce-136	CA	.	.	.	.
Ce-137	CA	1.31E-05	7.44E-06	.	2.05E-05
Ba-140	CA	.	.	.	.
La-140	CA	.	.	.	.
Ce-141	CA	.	.	.	.
Ce-144	CA	.	.	.	.
Zn-65	CA	.	.	.	.
Ba-133	CA	.	.	.	.
Sb-125	CA	.	.	.	.
Fe-55	CA	1.34E-04	3.92E-04	4.30E-04	9.56E-04
TOTAL	CA	1.96E-04	5.55E-04	6.33E-04	1.33E-03

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 and 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
April Through June 1992

22/3 Chessey GASEOUS EFFLUENTS

GROUND LEVEL RELEASES

Docket Numbers: 50-237

SEMI-ELEVATED RELEASES 50-249

XX ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	APRIL	MAY	JUNE	2nd QUARTER TL
FISSION GASES					
Xe-138	CI	.	.	.	.
Xe-135m	CI	.	.	.	.
Kr-87	CI	.	.	.	.
Kr-88	CI	.	.	.	.
Kr-85m	CI	.	.	.	.
Kr-85	CI	1.12E-04	1.84E-04	1.73E-04	4.69E-04
Xe-135	CI	1.09E-00	.	.	1.09E-00
Xe-133	CI	.	.	.	.
TOTAL	CI	1.09E-00	1.84E-04	1.73E-04	1.09E-00
IODINES					
I-131	CI	1.46E-05	4.24E-05	4.25E-05	9.95E-05
I-133	CI	3.00E-04	2.99E-04	4.46E-04	1.05E-03
I-135	CI	.	.	.	.
TOTAL	CI	3.15E-04	3.41E-04	4.89E-04	1.15E-03
PARTICULATES					
Sr-89	CI	1.59E-05	3.60E-06	3.47E-05	3.42E-05
Sr-90	CI	2.87E-07	4.79E-07	.	7.66E-07
Cr-51	CI	.	.	.	.
Mn-54	CI	7.79E-05	4.53E-05	.	1.23E-04
Co-58	CI	.	.	.	.
Fe-59	CI	.	.	.	.
Co-60	CI	1.19E-04	1.08E-04	5.23E-05	2.79E-04
Zr-95	CI	.	.	.	.
Nb-95	CI	.	.	.	.
Pu-103	CI	.	.	.	.
Ag-110m	CI	.	.	.	.
Sb-124	CI	.	.	.	.
I-131	CI	.	.	.	.
Ce-134	CI	.	.	.	.
Ce-136	CI	.	.	.	.
Ce-137	CI	1.24E-05	8.00E-06	.	2.04E-05
Ba-140	CI	.	.	.	.
La-140	CI	.	.	.	.
Ce-141	CI	.	.	.	.
Ce-144	CI	.	.	.	.
Zn-65	CI	.	.	.	.
Ba-133	CI	.	.	.	.
Sb-125	CI	.	.	.	.
Fe-55	CI	8.51E-04	5.37E-04	8.52E-05	1.47E-03
TOTAL	CI	1.05E-03	7.02E-04	1.53E-04	1.93E-03

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through June 1992

D2/J Pk Building Vent GASEOUS EFFLUENTS

GROUND LEVEL RELEASES

Docket Numbers: 50-237

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SEMI-ELEVATED RELEASES

50-249

ELEVATED RELEASES

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		1st QUARTER	2nd QUARTER	1st QUARTER	2nd QUARTER
FISSION GASES					
Xe-138	CI	.	.		
Xe-135m	CI	.	.		
Kr-87	CI	.	.		
Kr-88	CI	.	.		
Kr-85m	CI	.	.		
Kr-85	CI	.	.		
Xe-135	CI	.	.		
Xe-133	CI	.	.		
TOTAL	CI			NONE	NONE
IODINES					
I-131	CI	2.18E-07	1.84E-05		
I-133	CI	9.19E-05	2.20E-04		
I-135	CI	.	.		
TOTAL	CI	9.21E-05	2.38E-04	NONE	NONE
PARTICULATES					
Sr-89	CI	6.56E-06	3.81E-06		
Sr-90	CI	5.94E-08	1.81E-07		
Cr-51	CI	1.66E-04	2.13E-04		
Mn-54	CI	4.12E-04	5.89E-04		
Co-58	CI	1.18E-04	2.42E-04		
Fe-59	CI	4.57E-05	1.24E-04		
Co-60	CI	1.51E-03	2.07E-03		
Zr-95	CI	.	.		
Nb-95	CI	.	.		
Ru-103	CI	.	.		
Ag-110m	CI	.	.		
Sb-124	CI	.	.		
I-131	CI	.	.		
Cs-134	CI	.	.		
Cs-136	CI	.	.		
Cs-137	CI	8.89E-06	.		
Ba-140	CI	.	.		
La-140	CI	.	.		
Ce-141	CI	.	.		
Ce-144	CI	.	.		
Zn-65	CI	3.18E-05	.		
Ba-133	CI	.	.		
Hg-99	CI	8.51E-05	.		
Sb-125	CI	.	.		
Fe-55	CI	2.63E-03	4.38E-03		
TOTAL	CI	5.01E-03	7.62E-03	NONE	NONE

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 and 3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through March 1992

D2/3 Pk Building Vent GASEOUS EFFLUENTS

GROUND LEVEL RELEASES

Docket Numbers: 50-237

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SEMI-ELEVATED RELEASES

50-249

ELEVATED RELEASES

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE			BATCH MODE
		JANUARY	FEBRUARY	MARCH	1st QUARTER
FISSION GASES					
Xe-128	CA	.	.	.	.
Xe-125m	CA	.	.	.	.
Kr-87	CA	.	.	.	.
Kr-88	CA	.	.	.	.
Kr-85m	CA	.	.	.	.
Kr-85	CA	.	.	.	.
Xe-125	CA	.	.	.	.
Xe-129	CA	.	.	.	.
TOTAL	CA	.	.	.	.
IODINES					
I-131	CA	.	.	2.18E-07	2.18E-07
I-133	CA	.	2.04E-05	7.15E-05	9.19E-05
I-135	CA	.	.	.	.
TOTAL	CA	.	2.04E-05	7.17E-05	9.21E-05
PARTICULATES					
Sr-89	CA	1.85E-07	7.96E-07	5.58E-06	6.56E-06
Sr-90	CA	3.98E-08	1.96E-08	.	5.94E-08
Zr-91	CA	.	3.10E-05	1.35E-04	1.66E-04
Mn-54	CA	1.81E-05	1.97E-04	1.97E-04	4.12E-04
Co-58	CA	.	4.71E-05	7.05E-05	1.18E-04
Fe-59	CA	.	1.84E-05	2.71E-05	4.57E-05
Co-60	CA	1.29E-04	6.85E-04	6.92E-04	1.51E-03
Zr-95	CA	.	.	.	.
Nb-95	CA	.	.	.	.
Ru-101	CA	.	.	.	.
Ag-110m	CA	.	.	.	.
Sb-124	CA	.	.	.	.
I-131	CA	.	.	.	.
Ce-134	CA	.	.	.	.
Ce-136	CA	.	.	.	.
Ce-137	CA	7.21E-06	.	1.66E-06	8.89E-06
Ba-140	CA	.	.	.	.
La-140	CA	.	.	.	.
Ce-141	CA	.	.	.	.
Ce-144	CA	.	.	.	.
Zn-65	CA	.	1.97E-05	1.21E-05	3.18E-05
Ba-133	CA	.	.	.	.
Mo-99	CA	.	.	8.51E-05	8.51E-05
Sb-125	CA	.	.	.	.
Fe-55	CA	3.32E-04	1.04E-03	1.26E-03	2.62E-03
TOTAL	CA	4.85E-04	2.04E-03	2.40E-03	5.01E-03

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 and 3 EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT
April Through June 1992

D 2/3 P= Building Vent GASEOUS EFFLUENTS

GROUND LEVEL RELEASES

Docket Numbers: 50-237

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SEMI-ELEVATED RELEASES

50-249

ELEVATED RELEASES

CONTINUOUS MODE

NUCLIDES RELEASED	UNIT	APRIL	MAY	JUNE	2nd QUARTER TOTAL
FISSION GASES					
Xe-138	CI	.	.	.	.
Xe-135m	CI	.	.	.	.
Kr-87	CI	.	.	.	.
Kr-88	CI	.	.	.	.
Kr-85m	CI	.	.	.	.
Kr-85	CI	.	.	.	.
Xe-135	CI	.	.	.	.
Xe-133	CI	.	.	.	.
TOTAL	CI	.	.	.	.
IODINES					
I-131	CI	6.23E-06	2.67E-06	9.50E-06	1.84E-05
I-133	CI	9.07E-05	1.91E-05	1.10E-04	2.20E-04
I-135	CI	.	.	.	.
TOTAL	CI	9.69E-05	2.18E-05	1.20E-04	2.38E-04
PARTICULATES					
Sr-89	CI	1.25E-06	1.21E-06	1.35E-06	3.91E-06
Sr-90	CI	.	.	1.81E-07	1.91E-07
Cr-51	CI	1.19E-04	.	9.42E-05	2.13E-04
Mn-54	CI	2.59E-04	7.36E-05	2.56E-04	5.89E-04
Co-58	CI	6.70E-05	5.49E-05	1.20E-04	2.42E-04
Fe-59	CI	6.19E-05	.	6.20E-05	1.24E-04
Co-60	CI	6.96E-04	3.49E-04	1.02E-03	2.07E-03
Zr-95	CI	.	.	.	.
Nb-95	CI	.	.	.	.
Ru-103	CI	.	.	.	.
Ag-110m	CI	.	.	.	.
Sb-124	CI	.	.	.	.
I-131	CI	.	.	.	.
Cs-134	CI	.	.	.	.
Cs-136	CI	.	.	.	.
Cs-137	CI	.	.	.	.
Ba-140	CI	.	.	.	.
La-140	CI	.	.	.	.
Ce-141	CI	.	.	.	.
Ce-144	CI	.	.	.	.
Zn-65	CI	.	.	.	.
Ba-133	CI	.	.	.	.
Hg-99	CI	.	.	.	.
SL-125	CI	.	.	.	.
Fe-55	CI	1.33E-03	6.97E-04	2.35E-03	4.38E-03
TOTAL	CI	2.53E-03	1.18E-03	3.90E-03	7.62E-03

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

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2, and 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through June 1992
LIQUID EFFLUENTS

SUMMATION OF ALL RELEASES Docket Numbers: 50-10
50-237
50-249

EST. TOTAL
UNITS 1st QUARTER 2nd QUARTER ERROR, %

A. FISSION AND ACTIVATION PRODUCTS

1. Total Release (not incl. tritium, gases, alpha)	CI	1.47E-02	6.31E-03	5.58
2. Average Diluted Conc. During Period	uCi/mL	6.52E-09	1.98E-09	
3. Percent of Applicable Limit	%	.	.	

B. TRITIUM

1. Total Release	CI	1.24E-00	1.54E-00	7.75
2. Average Diluted Conc. During Period	uCi/mL	5.50E-07	4.83E-07	
3. Percent of Applicable Limit	%	.	.	

C. DISSOLVED AND ENTRAINED GASES

1. Total Release	CI	1.64E-05	< LLD	5.58
2. Average Diluted Conc. During Period	uCi/mL	7.29E-12	< LLD	
3. Percent of Applicable Limit	%	.	.	

D. GROSS ALPHA RADIOACTIVITY

1. Total Release	CI	< LLD	< LLD	15.1
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E. VOLUME OF WASTE RELEASED (prior to dilution)	Liters	4.36E-06	3.09E-06	5.00
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F. VOLUME OF DILUTION WATER USED DURING PERIOD	liters	2.25E-09	3.19E-09	5.00
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* The information is contained in the Radiological Impact on Man section of this report. Total liquid release data is provided which includes fission and activation products, tritium, and dissolved and entrained gases.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through June 1992

TABLE OF LOWER LIMITS OF DETECTABILITY
FOR LIQUID EFFLUENTS

Docket Numbers: 50-10
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NUCLIDE	LLD (uCi/mL)
Sr-89	7.00E-08*
Sr-90	5.07E-09
Mn-54	5.50E-08
Co-58	4.20E-08
Fe-59	9.30E-08
Co-60	1.23E-07
In-65	1.20E-07
Sb-124	4.50E-08
I-131	4.50E-08
Ce-134	4.60E-08
Ce-137	7.20E-08
Ba-140	2.20E-07
La-140	4.60E-08
Ce-141	6.90E-08
Xe-133	1.20E-07
Xe-135	4.20E-08
Cr-51	3.70E-07
Fe-55	1.50E-07
Ce-138	3.10E-07
H-3	3.00E-07
Gross Alpha	8.00E-08
Zr-95	9.80E-08
Kr-87	1.50E-07
Kr-88	1.70E-07
I-135	2.10E-07
I-132	6.70E-08
Ag-110m	5.90E-08
Ba-133	6.00E-08
Ce-144	3.10E-07
Ce-136	5.50E-08
I-133	6.30E-08
I-134	1.50E-07
Kr-85	1.10E-05
Mo-99	3.90E-08
Nb-95	5.00E-08
Np-239	1.50E-07
Pu-103	5.10E-08
Sb-125	1.50E-07
Xe-133m	1.80E-06
Xe-133m	3.60E-07
Xe-138	4.10E-06

*This limit was reported as an MDA by the offsite vendor for CCSW samples for discharges from 06-13-92 to 06-16-92. All other discharge samples had MDAs reported at less than or equal to 1.00E-08 uCi/ml.

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through June 1992

Radwaste LIQUID EFFLUENTS

Docket Numbers: 50-10
50-237
50-249

1. Number of Batch Releases: 71
2. Total Time Period for Batch Releases: $1.83E+04$ min
3. Maximum Time Period for a Batch Release: $3.74E+02$ min
4. Average Time Period for Batch Releases: $2.57E+02$ min
5. Minimum Time Period for a Batch Release: $1.52E+02$ min
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: $3.00E+05$ L/min

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		1st QUARTER	2nd QUARTER	1st QUARTER	2nd QUARTER
Sr-89	CI			.	$7.81E-06$
Sr-90	CI			.	$7.39E-06$
Mn-54	CI			$3.80E-03$	$9.36E-04$
Co-58	CI			$3.94E-06$	.
Fe-59	CI			$8.15E-05$	.
Co-60	CI			$7.69E-03$	$2.52E-03$
Zn-65	CI			.	.
Ru-103	CI			.	.
Ag-110m	CI			.	.
Sb-124	CI			.	.
I-131	CI			.	.
Cs-134	CI			.	.
Cs-137	CI			$2.14E-03$	$2.08E-03$
Ba-140	CI			.	.
La-140	CI			.	.
Ce-141	CI			.	.
Ce-138	CI			.	.
Fe-55	CI			$1.01E-03$	$7.44E-04$
Zr-95	CI			.	.
I - 132	CI			.	.
I - 134	CI			.	.
Bi-214	CI			$1.60E-05$	.
(above)					
Total For Period	CI	NONE	NONE	$1.47E-02$	$6.30E-03$
Xe-133	CI			.	.
Xe-135	CI			$1.64E-05$	.
Kr-88	CI			.	.

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

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
JANUARY Through March 1992

Radwaste

LIQUID EFFLUENTS

Docket Numbers: 50-10
50-237
50-249

NUCLIDES RELEASED	UNIT	BATCH MODE			1st QUARTER TOTAL
		JANUARY	FEBRUARY	MARCH	
Sr-89	CI	.	.	.	.
Sr-90	CI	.	.	.	.
Mn-54	CI	5.79E-04	1.43E-03	1.79E-03	3.80E-03
Co-58	CI	.	.	3.94E-06	3.94E-06
Fe-59	CI	.	.	8.15E-05	8.15E-05
Co-60	CI	2.20E-03	2.60E-03	2.89E-03	7.69E-03
Zn-65	CI	.	.	.	.
Ru-101	CI	.	.	.	.
Ag-110m	CI	.	.	.	.
Sb-124	CI	.	.	.	.
I-131	CI	.	.	.	.
Ce-134	CI	.	.	.	.
Ce-137	CI	1.24E-03	4.64E-04	4.32E-04	2.14E-03
Ba-140	CI	.	.	.	.
La-140	CI	.	.	.	.
Ce-138	CI	.	.	.	.
Fe-55	CI	6.10E-04	2.74E-04	1.23E-04	1.01E-03
I-132	CI	.	.	.	.
I-134	CI	.	.	.	.
Bi-214	CI	.	1.60E-05	.	1.60E-05
(above)					
Total For Period	CI	4.63E-03	4.78E-03	5.32E-03	1.47E-02
Xe-133	CI	.	.	.	.
Xe-135	CI	.	6.02E-06	1.04E-05	1.64E-05

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

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2, AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
April Through June 1992

Rad-405e

LIQUID EFFLUENTS

Docket Numbers: 50-10
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BATCH MODE

NUCLIDES RELEASED	UNIT	APRIL	MAY	JUNE	2nd QUARTER TOTAL
Sr-89	CI	.	.	7.81E-06	7.81E-06
Sr-90	CI	6.09E-06	5.81E-07	7.23E-07	7.39E-06
Mn-54	CI	4.92E-04	2.10E-04	2.34E-04	9.36E-04
Co-58	CI	.	.	.	.
Fe-59	CI	.	.	.	.
Co-60	CI	1.16E-03	5.86E-04	7.69E-04	2.52E-03
Zn-65	CI	.	.	.	.
Sb-124	CI	.	.	.	.
I-131	CI	.	.	.	.
Ce-134	CI	.	.	.	.
Ce-137	CI	1.27E-03	2.88E-04	5.24E-04	2.08E-03
Ba-140	CI	.	.	.	.
La-140	CI	.	.	.	.
Ce-141	CI	.	.	.	.
Ce-138	CI	.	.	.	.
Fe-55	CI	1.99E-04	1.27E-04	4.18E-04	7.44E-04
I-132	CI	.	.	.	.
	CI				
(above)	CI				
Total For Period	CI	3.13E-03	1.21E-03	1.95E-03	6.30E-03
Xe-133	CI	.	.	.	.
Xe-135	CI	.	.	.	.

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through June 1992

CCSW LIQUID EFFLUENTS

Socket Numbers: 50-237
50-249

1. Number of Batch Releases: 72
2. Total Time Period for Batch Releases: 8.93E+01 min
3. Maximum Time Period for a Batch Release: 1.24E+00 min
4. Average Time Period for Batch Releases: 1.24E+00 min
5. Minimum Time Period for a Batch Release: 1.24E+00 min
6. Average Stream Flow During Periods of Release of Effluent into a Flowing Stream: 1.94E+06 L/min

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		1st QUARTER	2nd QUARTER	1st QUARTER	2nd QUARTER
Sr-89	CI			.	.
Sr-90	CI			1.20E-06	7.75E-07
Mn-54	CI			.	.
Co-58	CI			.	.
Fe-59	CI			.	.
Co-60	CI			1.13E-05	2.91E-06
Zn-65	CI			.	.
Sb-122	CI			.	.
Sb-124	CI			.	.
I-131	CI			.	.
I-132	CI			.	.
I-135	CI			.	.
Cs-134	CI			.	.
Cs-137	CI			2.60E-06	6.39E-06
Ba-140	CI			.	.
La-140	CI			.	.
Ce-138	CI			.	.
Fe-55	CI			.	.
	CI				
	CI				
	CI				
(above)	CI				
Total For Period	CI	NONE	NONE	1.55E-05	1.01E-05
Xe-133	CI			.	.
Xe-135	CI			.	.

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
January Through MARCH 1992

CCSW

LIQUID EFFLUENTS

Docket Numbers: 50-237
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NUCLIDES RELEASED	UNIT	BATCH MODE			1st QUARTER TOTAL
		JANUARY	FEBRUARY	MARCH	
Sr-89	CI	.	.	.	.
Sr-90	CI	.	5.13E-07	1.29E-06	1.30E-06
Mn-54	CI	.	.	.	.
Co-58	CI	.	.	.	.
Fe-59	CI	.	.	.	.
Co-60	CI	5.11E-06	2.07E-06	3.68E-06	1.11E-05
Zn-65	CI	.	.	.	.
Sb-122	CI	.	.	.	.
Sb-124	CI	.	.	.	.
I-131	CI	.	.	.	.
I-132	CI	.	.	.	.
I-135	CI	.	.	.	.
Ce-134	CI	.	.	.	.
Ce-137	CI	.	6.60E-07	1.94E-06	2.60E-06
Ba-140	CI	.	.	.	.
La-140	CI	.	.	.	.
Ce-138	CI	.	.	.	.
Fe-55	CI	.	.	.	.
	CI				
	CI				
	CI				
(above)	CI				
Total For Period	CI	5.31E-06	3.24E-06	6.91E-06	1.55E-05
Xe-133	CI	.	.	.	.
Xe-135	CI	.	.	.	.

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

DRESDEN NUCLEAR POWER STATION
UNITS 2 AND 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT
April Through June 1992

CCSW

LIQUID EFFLUENTS

Docket Numbers: 50-237
50-249

NUCLIDES RELEASED	UNIT	HATCH MODE			2nd QUARTER TOTAL
		APRIL	MAY	JUNE	
Sr-89	CA	.	.	.	.
Sr-90	CA	6.76E-07	9.86E-08	.	7.74E-07
Mn-54	CA	.	.	.	.
Co-58	CA	.	.	.	.
Fe-59	CA	.	.	.	.
Co-60	CA	2.91E-06	.	.	2.91E-06
Zn-65	CA	.	.	.	.
Sb-122	CA	.	.	.	.
Sb-124	CA	.	.	.	.
I-131	CA	.	.	.	.
I-132	CA	.	.	.	.
I-135	CA	.	.	.	.
Cs-134	CA	.	.	.	.
Cs-137	CA	1.37E-06	2.39E-06	2.66E-06	6.42E-06
Ba-140	CA	.	.	.	.
La-140	CA	.	.	.	.
Ce-139	CA	.	.	.	.
Fe-55	CA	.	.	.	.
	CA				
	CA				
	CA				
(above)	CA				
Total For Period	CA	4.96E-06	2.46E-06	2.66E-06	1.01E-05
Xe-133	CA	.	.	.	.
Xe-135	CA	.	.	.	.

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

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

January Through June 1992

Docket Numbers: 50-10
50-237
50-249

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL) Est Tot.
Error, %

1. Type of Waste	Unit	6-month period	
a. Spent resins, filter sludges, evaporator bottoms, etc.	m3	2.04E+02	12.4
	ci	1.70E+03	
b. Dry compressible waste, contaminated equip., etc.	m3	9.95E+02	16.6
	ci	2.99E+01	
c. Irradiated components, control rods, etc.	m3	0.00E+00	10.6
	ci	0.00E+00	
d. Other (describe)	m3	0.00E+00	
	ci	0.00E+00	

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

		B	CI
a.	Co-60	66.6	1.13E+03
	Fe-55	1.34	2.28E+01
	Mn-54	14.2	2.41E+02
	Ni-63	11.6	1.97E+02
	Ce-137	1.02	5.13E+01
b.	Co-60	21.2	6.34E+00
	Fe-55	64.4	1.93E+01
	Mn-54	6.15	1.84E+00
	Ni-59	1.32	4.01E-01
	Ni-63	1.02	1.05E-01
	Ce-137	5.14	1.54E+00

3. Solid Waste Disposition

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
43	Motor freight (exclusive use only)	CNSI, Barnwell, SC
4	Motor freight (exclusive use only)	Quadrex, Oak Ridge, TN
9	Motor freight (exclusive use only)	CNSI, Channahon, IL
7	Motor freight (exclusive use only)	SEC, Oak Ridge, TN
23	Motor freight (exclusive use only)	US Ecology, Beatty, NV

B. IRRADIATED FUEL SHIPMENTS (Disposition)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
1	Motor Freight (Highway Route Controlled)	Babcock and Wilcox Lynchburg, VA.

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

January Through June 1992

ABNORMAL RELEASES

A. LIQUID

1. Number of Releases: 0
2. Total Activity Released: 0

B. GASEOUS

1. Number of Releases: 4
2. Total Activity Released: 2.45E-03 Ci

TOTAL 4

1. On January 9, 1992, a backup sample pump was placed in service for Unit 1 chimney at 13:30. The sampler was discovered with a blown fuse on January 10, 1992 at 08:00. Sampling was re-established at 09:30. The estimated activity released is:

Cs-137	1.10E-06 Ci
Sr-90	4.09E-10 Ci
Gross Alpha	1.95E-08 Ci
H-3	5.99E-05 Ci

2. On February 11, 1992, the Units 2/3 Reactor Building Ventilation Stack Samples were not analyzed for the period from 08:25 to 16:15. The primary sampler (SPING) was out of service for modification work on a motor control center during this period. At the filter pull on February 18, 1992, the backup filters were not identified as the proper samples and therefore they were not analyzed. Corrective actions entail analyzing primary and backup samples at each filter pull (LER 92-09). The estimated activity released is:

I-133	5.22E-07 Ci
Mn-54	1.93E-06 Ci
Co-58	5.38E-07 Ci
Co-60	7.06E-06 Ci
Zn-65	1.04E-07 Ci
Fe-55	6.39E-06 Ci
Sr-89	4.27E-09 Ci
Sr-90	9.20E-10 Ci
Gross Alpha	7.22E-09 Ci
H-3	9.43E-04 Ci

DRESDEN NUCLEAR POWER STATION
UNITS 1, 2 AND 3
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT
JANUARY Through June 1992
ABNORMAL RELEASES

3. The Unit 1 Chimney Backup Sampler was found with a blown fuse on April 9, 1992 at 07:15. The sampler was last known to be running at 15:45 on April 8, 1992. The blown fuse was discovered to be the wrong size. All samplers of this type were then checked for proper fuses. Correct size fuses are currently installed. (DVR #12-1-92-04) The estimated activity during the unsampled period is:

Fe-55	2.11E-08 CI
Co-60	1.50E-06 CI
Sr-89	2.69E-09 CI
H-3	4.65E-05 CI

4. On March 22, 1992 at 01:00, the Unit 2/3 Chimney G.E. System (backup sampler) flow was restricted by a failed fuse for a solenoid, causing a valve to close. The 2/3 Chimney SPING was placed in service at 03:35. The estimated activity during this period is:

Fe-55	1.16E-06 CI
Sr-89	2.88E-05 CI
H-3	1.35E-03 CI

DRESDEN NUCLEAR POWER STATION DOCKET NOS. 50-10, 50-237, 50-249

RADIOLOGICAL IMPACT ON MAN

DRESDEN UNIT ONE

1992 ANNUAL REPORT

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/22/93
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()
BETA AIR (MRAD)	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()
TOT. BODY (MREM)	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()
SKIN (MREM)	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()	0.00E+00 ()
ORGAN (MREM)	1.07E-05 (SE)	7.68E-06 (SE)	1.14E-06 (N)	1.11E-06 (N)	2.04E-05 (SE)
	LIVER	LIVER	LUNG	LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 10 CFR 50 APP. I
INFANT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	% OF APP. I
		----- % OF APP I. -----					
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
		LIVER	LIVER	LUNG	LIVER		LIVER

RESULTS BASED UPON
ODCM ANNEX
REVISION 0
MARCH 1989

DRESDEN UNIT ONE

1992 ANNUAL REPORT
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
 PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/22/93
 ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(MRAD)	()	()	()	()	()
BETA AIR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(MRAD)	()	()	()	()	()
TOT. BODY	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(MREM)	()	()	()	()	()
SKIN	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(MREM)	()	()	()	()	()
ORGAN	9.44E-06	1.32E-05	6.78E-06	4.40E-06	3.39E-05
(MREM)	(SE)	(SE)	(SE)	(SE)	(SE)
	LIVER	LIVER	LIVER	LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 10 CFR 50 APP. I ADULT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	% OF APP. I
		----- % OF APP. I. -----					
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
		LIVER	LIVER	LIVER	LIVER		LIVER

RESULTS BASED UPON
 ODCM ANNEX
 REVISION 0
 MARCH 1989

DRESDEN UNIT TWO

1992 ANNUAL REPORT

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/26/93
INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.47E-04 (NE)	5.95E-06 (NE)	3.83E-06 (NE)	1.05E-05 (NE)	1.68E-04 (NE)
BETA AIR (MRAD)	2.00E-05 (N)	1.25E-06 (N)	8.07E-07 (N)	2.20E-06 (N)	2.43E-05 (N)
TOT. BODY (MREM)	7.20E-05 (NE)	2.50E-06 (NE)	1.61E-06 (NE)	4.40E-06 (NE)	8.05E-05 (NE)
SKIN (MREM)	1.30E-04 (NE)	5.47E-06 (NE)	3.52E-06 (NE)	9.61E-06 (NE)	1.48E-04 (NE)
ORGAN (MREM)	1.47E-02 (NNE)	8.65E-03 (NNE)	8.59E-04 (NNE)	1.72E-03 (NNE)	2.58E-02 (NNE)
	LUNG	LUNG	THYROID	LUNG	LUNG

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 10 CFR 50 APP. I INFANT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.20	0.12	0.01	0.02	15.0	0.17
		LUNG	LUNG	THYROID	LUNG		LUNG

RESULTS BASED UPON:
ODCH ANNEX
REVISION 0
MARCH 1989

DRESDEN UNIT TWO

1992 ANNUAL REPORT
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
 PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/26/93
 ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	1.47E-04 (NE)	5.95E-06 (NE)	3.83E-06 (NE)	1.05E-05 (NE)	1.68E-04 (NE)
BETA AIR (MRAD)	2.00E-05 (N)	1.25E-06 (N)	8.07E-07 (N)	2.20E-06 (N)	2.43E-05 (N)
TOT. BODY (MREM)	7.20E-05 (NE)	2.50E-06 (NE)	1.61E-06 (NE)	4.40E-06 (NE)	8.05E-05 (NE)
SKIN (MREM)	1.30E-04 (NE)	5.47E-06 (NE)	3.52E-06 (NE)	9.61E-06 (NE)	1.48E-04 (NE)
ORGAN (MREM)	1.50E-02 (NNE)	8.98E-03 (NNE)	1.01E-03 (NNE)	1.89E-03 (NNE)	2.67E-02 (NNE)
	LUNG	LUNG	THYROID	LUNG	LUNG

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 10 CFR 50 APP. I ADULT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	% OF APP. I
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.20	0.12	0.01	0.03	15.0	0.18
		LUNG	LUNG	THYROID	LUNG		LUNG

RESULTS BASED UPON
 ODCM ANNEX
 REVISION 0
 MARCH 1989

DRESDEN UNIT THREE

1992 ANNUAL REPORT MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/26/93 INFANT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR (MRAD)	0.00E+00 ()	9.59E-06 (NE)	1.45E-05 (NE)	3.35E-05 (NE)	5.75E-05 (NE)
BETA AIR (MRAD)	0.00E+00 ()	2.02E-06 (N)	3.05E-06 (N)	7.05E-06 (N)	1.21E-05 (N)
TOT. BODY (MREM)	0.00E+00 ()	4.03E-06 (NE)	6.08E-06 (NE)	1.41E-05 (NE)	2.42E-05 (NE)
SKIN (MREM)	0.00E+00 ()	8.81E-06 (NE)	1.33E-05 (NE)	3.07E-05 (NE)	5.28E-05 (NE)
ORGAN (MREM)	6.82E-04 (NNE)	1.24E-02 (NNE)	4.32E-03 (NNE)	9.86E-03 (NNE)	2.66E-02 (NNE)
	LUNG	LUNG	THYROID	LUNG	THYROID

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 10 CFR 50 APP. I INFANT RECEPTOR

	OTRLY OBJ	----- % OF APP I. -----				YRLY OBJ	% OF APP.I
		1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV		
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.01	0.16	0.06	0.13	15.0	0.18
		LUNG	LUNG	THYROID	LUNG		THYROID

RESULTS BASED UPON
ODCM ANNEX
REVISION 0
MARCH 1989

DRESDEN UNIT THREE

1992 ANNUAL REPORT
 MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
 PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/26/93
 ADULT RECEPTOR

TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
GAMMA AIR	0.00E+00	9.59E-06	1.45E-05	3.35E-05	5.75E-05
(MRAD)	()	(NE)	(NE)	(NE)	(NE)
BETA AIR	0.00E+00	2.02E-06	3.05E-06	7.05E-06	1.21E-05
(MRAD)	()	(N)	(N)	(N)	(N)
TOT. BODY	0.00E+00	4.03E-06	6.08E-06	1.41E-05	2.42E-05
(MREM)	()	(NE)	(NE)	(NE)	(NE)
SKIN	0.00E+00	8.81E-06	1.33E-05	3.07E-05	5.28E-05
(MREM)	()	(NE)	(NE)	(NE)	(NE)
ORGAN	6.92E-04	1.37E-02	5.04E-03	1.05E-02	2.89E-02
(MREM)	(NNE)	(NNE)	(NNE)	(NNE)	(NNE)
	LUNG	GI-LLI	THYROID	LUNG	GI-LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 10 CFR 50 APP. I ADULT RECEPTOR

	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	% OF APP. I
		----- % OF APP. I. -----					
GAMMA AIR (MRAD)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
BETA AIR (MRAD)	10.0	0.00	0.00	0.00	0.00	20.0	0.00
TOT. BODY (MREM)	2.5	0.00	0.00	0.00	0.00	5.0	0.00
SKIN (MREM)	7.5	0.00	0.00	0.00	0.00	15.0	0.00
ORGAN (MREM)	7.5	0.01	0.18	0.07	0.14	15.0	0.19
		LUNG	GI-LLI	THYROID	LUNG		GI-LLI

RESULTS BASED UPO
 ODCM ANNEX
 REVISION 0
 MARCH 1989

**DRESDEN UNIT TWO
INFANT RECEPTOR**

**1992 ANNUAL REPORT
MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/24/93**

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	1.09E-05	9.95E-06	5.41E-06	2.21E-06	2.85E-05
BODY					
INTERNAL	2.67E-05	2.65E-05	6.43E-06	3.22E-06	6.29E-05
ORGAN					
	LIVER	LIVER	LIVER	LIVER	LIVER

**THIS IS A REPORT FOR THE CALENDAR YEAR 1992
COMPLIANCE STATUS - 10 CFR 50 APP. I**

		----- % OF APP I. -----					
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.00	0.00	0.00	0.00	3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
		LIVER	LIVER	LIVER	LIVER		LIVER

**RESULTS BASED UPON:
ODCH ANNEX
REVISION 0
MARCH 1989**

**DRESDEN UNIT TWO
INFANT RECEPTOR**

**1992 ANNUAL REPORT
PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/24/93**

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	1.09E-05	9.95E-06	5.41E-06	2.21E-06	2.85E-05
BODY					
INTERNAL	2.67E-05	2.65E-05	6.43E-06	3.22E-06	6.29E-05
ORGAN					
	LIVER	LIVER	LIVER	LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 (MREM)	0.001
BODY		
INTERNAL	4.0 (MREM)	0.002
ORGAN		
		LIVER

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

**RESULTS BASED UPC
ODCM ANNEX
REVISION 0
MARCH 1989**

DRESDEN UNIT TWO
ADULT RECEPTOR

1992 ANNUAL REPORT
MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/24/93

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	3.51E-05	3.70E-05	3.91E-06	2.76E-06	7.87E-05
INTERNAL ORGAN	5.23E-05	5.47E-05	5.01E-06	3.83E-06	1.16E-04
	LIVER	LIVER	LIVER	LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 10 CFR 50 APP. I

		----- % OF APP I. -----					
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	% OF APP.I
TOTAL BODY (MREM)	1.5	0.00	0.00	0.00	0.00	3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
		LIVER	LIVER	LIVER	LIVER		LIVER

RESULTS BASED UPO:
ODCM ANNEX
REVISION 0
MARCH 1989

**DRESDEN UNIT TWO
ADULT RECEPTOR**

**1992 ANNUAL REPORT
PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/24/93**

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	4.94E-06	5.00E-06	1.93E-06	8.46E-07	1.27E-05
INTERNAL ORGAN	7.03E-06	5.90E-06	2.03E-06	9.11E-07	1.48E-05
	GI-LLI	LIVER	GI-LLI	LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL BODY	4.0 (MREM)	0.000
INTERNAL ORGAN	4.0 (MREM)	0.000
		LIVER

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

**RESULTS BASED UP
ODCM ANNEX
REVISION 0
MARCH 1989**

**DRESDEN UNIT THREE
INFANT RECEPTOR**

**1992 ANNUAL REPORT
MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/24/93**

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	1.19E-05	1.00E-05	5.38E-06	2.19E-06	2.95E-05
INTERNAL ORGAN	3.03E-05	2.66E-05	6.31E-06	2.69E-06	6.60E-05
	LIVER	LIVER	LIVER	LIVER	LIVER

**THIS IS A REPORT FOR THE CALENDAR YEAR 1992
COMPLIANCE STATUS - 10 CFR 50 APP. I**

		----- % OF APP I. -----					
	QTRLY OBJ	1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	% OF APP.
TOTAL BODY (MREM)	1.5	0.00	0.00	0.00	0.00	3.0	0.0
CRIT. ORGAN(MREM)	5.0	0.00	0.00	0.00	0.00	10.0	0.0
		LIVER	LIVER	LIVER	LIVER		LIVER

**RESULTS BASED UP
ODCM ANNEX
REVISION 0
MARCH 1989**

**DRESDEN UNIT THREE
INFANT RECEPTOR**

**1992 ANNUAL REPORT
PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/24/93**

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	1.19E-05	1.00E-05	5.38E-06	2.19E-06	2.95E-05
BODY					
INTERNAL	3.03E-05	2.66E-05	6.31E-06	2.69E-06	6.60E-05
ORGAN					
	LIVER	LIVER	LIVER	LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 (MREM)	0.001
BODY		
INTERNAL	4.0 (MREM)	0.002
ORGAN		
		LIVER

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

**RESULTS BASED UPON:
ODCM ANNEX
REVISION 0
MARCH 1989**

**DRESDEN UNIT THREE
ADULT RECEPTOR**

**1992 ANNUAL REPORT
MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/24/93**

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL BODY	4.13E-05	3.71E-05	3.71E-06	1.78E-06	8.39E-05
INTERNAL ORGAN	6.16E-05	5.49E-05	4.72E-06	2.34E-06	1.24E-04
	LIVER	LIVER	LIVER	LIVER	LIVER

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 10 CFR 50 APP. I

	QTRLY OBJ	----- 10 OF APP I. ----- 1ST QTR JAN-MAR	2ND QTR APR-JUN	3RD QTR JUL-SEP	4TH QTR OCT-NOV	YRLY OBJ	10 OF APP. I
TOTAL BODY (MREM)	1.5	0.00	0.00	0.00	0.00	3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.00	0.00	0.00	0.00	10.0	0.00
		LIVER	LIVER	LIVER	LIVER		LIVER

**RESULTS BASED UPON:
ODCH ANNEX
REVISION 0
MARCH 1989**

**DRESDEN UNIT THREE
ADULT RECEPTOR**

**1992 ANNUAL REPORT
PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM •
PERIOD OF RELEASE - 01/01/92 TO 12/31/92 CALCULATED 02/24/93**

DOSE TYPE	1ST QUARTER JAN-MAR	2ND QUARTER APR-JUN	3RD QUARTER JUL-SEP	4TH QUARTER OCT-DEC	ANNUAL
TOTAL	5.44E-06	5.03E-06	1.91E-06	7.86E-07	1.32E-05
BODY					
INTERNAL	8.49E-06	5.91E-06	2.00E-06	8.56E-07	1.55E-05
ORGAN	GI-LLI	LIVER	GI-LLI	GI-LLI	GI-LLI

THIS IS A REPORT FOR THE CALENDAR YEAR 1992

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 (MREM)	0.000
BODY		
INTERNAL	4.0 (MREM)	0.000
ORGAN		GI-LLI

• THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141.

**RESULTS BASED UPON
ODCM ANNEX
REVISION 0
MARCH 1989**

DRESDEN NUCLEAR POWER STATION DOCKET NOS. 50-10, 50-237, 50-249
METEOROLOGICAL DATA

JANUARY-MARCH 1992
153-16 ft. DIFFERENTIAL TEMPERATURE

[illegible]

CECO SPEEDER STATION
35 FT. WIND SPEED AND WIND DIRECTION

January-March 1992
192-35 FT. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								TOT
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	WW	WNW	TOTAL	CU	CS	SB	N	SS	MS	ES	
CU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.91	1.91							
1 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27		.27						
2 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23			.23					
3 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.34				.34				
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.60					.60			
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30						.30		

CU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
1 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
2 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
3 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		

TOT 5.17 4.20 4.17 3.97 5.20 6.00 5.45 3.90 6.27 7.51 6.46 4.03 7.74 10.03 9.30 8.70 100.00 17.00 6.41 7.33 47.00 16.30 3.31 1.47 100

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	WW	WNW	TOTAL	STABILITY CLASSES	
1.33	.82	.37	.27	.32	.36	.37	.41	.73	.32	.87	1.05	.82	2.11	2.20	2.70	17.03	Extremely unstable	
.33	.32	.00	.23	.23	.46	.41	.37	.37	.81	.32	.32	.37	.30	.92	.60	6.46	Moderately unstable	
.27	.23	.32	.46	.33	.60	.27	.23	.55	.35	.27	.10	.60	.87	.87	.35	7.33	Slightly unstable	
2.43	2.20	2.13	2.34	2.70	4.70	2.84	1.51	2.30	2.70	2.31	1.37	3.82	5.34	4.67	3.60	47.66	Neutral	
.33	.37	.23	.23	.46	1.00	1.10	1.10	1.74	2.11	1.82	.73	1.51	1.24	.41	1.31	10.30	Slightly Stable	
.00	.00	.00	.00	.25	.37	.32	.32	.37	.85	.87	.23	.25	.10	.27	.20	3.86	Moderately Stable	
.35	.00	.00	.00	.00	.14	.00	.00	.14	.27	.10	.14	.00	.00	.00	.00	1.47	Extremely Stable	

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	WW	WNW	TOTAL	WIND SPEED CLASSES	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0 - 1.5 m/s	
.27	.33	.23	.32	.41	.46	.46	.33	.84	.62	.46	.41	.33	.36	.82	.60	6.46	1.5 - 3.0 m/s	
1.83	1.51	2.60	1.80	2.20	4.72	3.82	1.85	1.70	2.30	2.11	1.24	3.43	3.80	1.83	2.50	20.10	3.0 - 7.5 m/s	
2.15	1.60	1.24	1.33	2.20	3.66	1.51	1.47	1.80	2.24	2.81	1.82	2.81	2.80	4.48	2.10	37.45	7.5 - 12.5 m/s	
.82	.41	.00	.00	.10	.84	.46	.37	1.47	1.80	.36	.73	.87	1.05	2.81	1.10	19.32	12.5 - 18.5 m/s	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	.25	.00	.32	.23	.10	2.52	18.5 - 24.5 m/s	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	> 24.5 m/s	

SEA CROSSING STATION
100 FT. WIND SPEED AND WIND DIRECTION

January-March 1982
100-35 FT. DIFFERENTIAL TEMPERATURE

NUMBER OF OBSERVATIONS = 2168
VALUES ARE PERCENT OCCURRENCE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								TOTAL	100
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	WW	WNW	B	B	B	B	B	B	B	B		
EV	.03	.12	.08	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03								.03	
WJ	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12							.03	
C SW	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03						.03	
A W	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
L SS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
M WS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
ES	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
EV	.03	.12	.08	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03								.03	
WJ	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12							.03	
1 SW	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03						.03	
- W	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
1 SS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
WS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
ES	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
EV	.03	.12	.08	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03								.03	
WJ	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12							.03	
4 SW	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03						.03	
- W	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
7 SS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
WS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
ES	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
EV	.03	.12	.08	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03								.03	
WJ	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12							.03	
8 SW	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03						.03	
- W	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
1 SS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
2 WS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
ES	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
EV	.03	.12	.08	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03								.03	
1 WJ	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12							.03	
2 SW	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03						.03	
- W	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
1 SS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
2 WS	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	
ES	.13	.12	.10	.12	.12	.10	.12	.13	.10	.13	.12	.13	.10	.13	.13	.12	.03	.12	.03	.03					.03	

TECH DRESSER STATION
100 FT. WIND SPEED AND WIND DIRECTION

JANUARY-MARCH 1982
100-25 FT. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CU	MC	SC	N	SS	MS	ES		
EN	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22							.22	
1 MC	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.42						.42	
2 SC	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22							.22	
3 MS	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27							.27	
4 ES	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25							.25	
5 ES	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22							.22	

EN	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22								.22
1 MC	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22							.22
2 SC	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22						.22
3 MS	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27	.27						.27
4 ES	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25						.25
5 ES	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22						.22

TOT 5.46 4.72 4.27 4.21 3.19 2.57 2.20 4.46 5.45 6.85 7.22 5.74 6.94 12.25 12.60 7.66 100.22 1.81 2.84 4.81 12.45 21.48 5.23 1.48 100.22

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-	
.65	.42	.28	.28	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	1.81	Extremely Stable	
.19	.25	.14	.22	.14	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	2.84	Moderately Stable	
.42	.19	.19	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	4.81	Slightly Stable	
2.52	2.38	2.26	2.24	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	12.45	Neutral	
1.82	.89	.51	.45	.14	1.71	1.62	2.13	2.22	2.31	2.73	1.62	1.71	1.16	1.11	.74	21.48	Slightly Stable	
.19	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	5.23	Moderately Stable	
.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	1.48	Extremely Stable	

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-	
.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	CALC	
.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	.74	1.0 - 3.3 mph	
.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	.46	3.4 - 7.3 mph	
1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	7.4 - 12.5 mph	
2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	12.6 - 18.5 mph	
.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	18.6 - 24.5 mph	
.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22	> 24.5 mph	

April-June 1962
150-15 12. DIFFERENTIAL COMPLAINTS

SPEED																	STABILITY CLASSES																
CLASS	0	001	01	02	03	04	05	06	07	08	09	10	11	12	13	14	TOTAL	02	03	04	05	06	07	08	09	TOTAL							
00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
07	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
08	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
17	.00	.00	.00																														

CECO GROSSER STATION
25 FT. WIND SPEED AND WIND DIRECTION

April-June 1997
150-25 FT. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								TOTAL
	N	NNE	NE	NNE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	W	WNW	W	W	W	W	W	W	W	W	TOTAL
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

TOT 0.00 1.24 19.31 0.38 11.22 10.40 4.81 5.89 6.20 4.35 4.86 3.34 1.79 2.74 5.59 7.10 100.00 20.82 5.94 4.28 32.87 22.81 7.28 3.21 100.00

Wind Direction by Stability

N	NNE	NE	NNE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	W	WNW	W	W	TOTAL	-STABILITY CLASSES-
1.51	1.32	2.30	1.24	1.19	2.61	2.15	1.70	.99	1.20	1.33	1.51	.64	.55	1.87	2.67	20.82		Extremely Destable	
.46	.32	.88	.50	.40	.41	.32	.39	.41	.32	.37	.23	.35	.37	.14	.37	5.94		Moderately Destable	
.27	.27	.55	.37	.44	.46	.14	.10	.10	.27	.23	.46	.20	.55	.10	.20	4.28		Slightly Destable	
1.88	2.52	3.76	4.17	5.20	2.20	.86	1.87	1.80	.82	1.37	.62	.74	.10	1.10	1.95	32.87		Neutral	
.82	1.51	1.88	1.87	2.43	2.52	.82	1.83	2.20	2.11	1.15	.41	.37	.27	1.81	1.33	22.81		Slightly Stable	
.80	.37	.41	.89	.87	1.60	.10	.37	.27	.39	.37	.14	.37	.27	.55	.64	7.28		Moderately Stable	
.46	.32	.14	.25	.89	.41	.35	.35	.30	.35	.25	.20	.74	.14	.55	.64	3.21		Extremely Stable	

Wind Direction by Wind Speed

N	NNE	NE	NNE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	W	WNW	W	W	TOTAL	WIND SPEED CLASSES
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	CALC
1.63	1.87	1.47	1.19	1.37	1.10	.41	.69	.69	.32	.89	.37	.37	.61	1.42	1.42	19.30	1.2 - 2.5 mph		
2.47	3.02	5.34	6.14	8.89	6.32	1.96	1.37	1.24	1.82	1.33	.73	.73	.14	1.62	2.57	43.96	2.6 - 7.5 mph		
1.74	2.86	3.33	1.15	3.87	2.84	1.74	1.97	2.34	1.42	1.19	1.10	.46	1.51	1.92	3.97	20.40	7.6 - 12.5 mph		
.27	.30	.35	.33	.89	.95	.87	1.58	1.50	1.85	1.85	1.85	.23	.10	.64	.74	8.93	12.6 - 18.5 mph		
.80	.69	.60	.69	.60	.60	.35	.10	.27	.55	.32	.79	.69	.69	.69	.30	1.37	18.6 - 24.5 mph		
.46	.32	.89	.69	.62	.60	.23	.69	.60	.90	.27	.23	.69	.69	.62	.30	.27	> 24.5 mph		

1991-1992
199-35 FL. DIFFERENTIAL TEMPERATURE

[illegible]

DECH DRESSER STATION
100 FT. WIND SPEED AND WIND DIRECTION

April-June 1982
100-35 FT. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																TOTAL	STABILITY CLASSES							
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	N	NNW	NW	NNW		EN	NE	SW	N	SS	NE	ES	
EN	.00	.21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.10	.04	.00							
1 NW	.14	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.02		.02						
9 SW	.05	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.02						
- N	.23	.00	.05	.05	.05	.07	.07	.02	.00	.00	.01	.00	.14	.00	.00	.00	5.91			5.91					
2 SS	.10	.00	.00	.00	.00	.14	.07	.10	1.00	1.15	.01	.00	.00	.14	.05	.10	4.40				4.40				
4 MS	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04								
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00								
EN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
6 NW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
7 SW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00			1.00					
2 SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
TOT	5.73	7.83	12.81	8.40	0.39	9.33	7.81	6.78	5.18	0.14	5.69	4.40	1.74	1.82	3.34	5.31	100.00	6.32	8.34	9.57	41.32	23.64	0.67	2.34	

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	N	NNW	NW	NNW	TOTAL	-STABILITY CLASSES-	
.00	1.00	1.00	.20	.10	.05	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	0.00	Extremely Unstable	
.00	.00	1.00	.70	.40	.04	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00	Moderately Unstable	
.00	.00	.70	.70	.70	1.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00	Slightly Unstable	
2.00	3.00	3.00	5.00	4.00	2.00	1.00	2.00	2.00	1.00	2.00	1.00	.00	.00	1.00	1.00	41.00	Neutral	
1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00	.00	.00	.00	.00	.00	20.00	Slightly Stable	
.00	.00	.00	.00	.00	1.00	1.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00	Moderately Stable	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00	Extremely Stable	

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	N	NNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.0 - 1.0 mph	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0 - 3.0 mph	
.00	.00	1.00	1.00	1.00	1.00	1.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	10.00	3.0 - 7.0 mph	
1.00	2.00	4.00	6.00	8.00	2.00	1.00	1.00	.00	.00	1.00	1.00	.00	.00	.00	.00	31.00	7.0 - 12.0 mph	
2.00	3.00	3.00	1.00	4.00	3.00	2.00	2.00	1.00	1.00	2.00	1.00	.00	.00	1.00	3.00	30.00	12.0 - 18.0 mph	
.00	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10.00	18.0 - 24.0 mph	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0.00	> 24.0 mph	