



Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

BBS LTR #78-1199

August 18, 1978

J. Keppler, Regional Director
Office of Inspection and Enforcement
Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

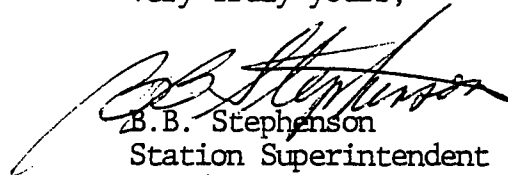
SUBJECT: Dresden Nuclear Power Station Semi-Annual Report N.R.C.
Dockets 50-10, 50-237, and 50-249

Dear Mr. Keppler:

Attached is the Semi-Annual Report pertaining to Radioactive Effluent Discharges and Solid Radioactive Waste for Dresden Units 1, 2, and 3 for the period of January 1, 1978 through June 30, 1978, as required by the Technical Specifications. Included in this report is errata for previously submitted Environmental and Radioactive Effluent Reports.

One copy of this report is provided for your use, and 39 copies are being transmitted by this letter to the Director, Office of Nuclear Reactor Regulation.

Very Truly yours,


B.B. Stephenson
Station Superintendent
Dresden Nuclear Power Station

BBS/DAA:krk

cc: D.A. Adam
File Copy/NRC

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ADD
10/25/78
(3)
A007
ES
1/39
ADD
MORRIS

Dresden

Errata

January - June 1977 Report

Section 5.4, Page 34, Line 17

Change	<u>From</u>	<u>To</u>
	Sr-90	Sr-89

Section 8.0, Page 36 From To
Tables 9.0-1 thru 9.0-3 Tables 8.0-1 thru 8.0-3

Insert Attached Table 5.2-2

Section 5.2, Page 33, Line 2	<u>From</u>	<u>To</u>
	5.2-6	5.2-7

Section 5.4, Page 34, Line 21 See 5.0 Tables 5.4-3 thru 5.4-4

Table 8.0-4

Collection Date 06/12/77 under solids
insert sample lost

Insert Table "Additional Information for Table 5.02, 5.03, 5.04 5.05:

Annual Report 1977

Section 1.2, Page 3, last line

Change	<u>From</u>	<u>To</u>
	Table	Table 1.2-1

Replace Table 3.2-2 cont'd with attached Table 3.2-3

Section 3.2, Page 24, Line 3

Change	<u>From</u>	<u>To</u>
	whild	while

Tables 5.0-2 through 5.0-3 - add footnote

NR - Not Required

Table 5.2-2

AIRBORNE IODINE-131* AND GROSS ALPHA AND BETA IN AIR PARTICULATES
Indicator Stations

Week Ending	ON-SITE D-16 STATION 1 A		ON-SITE D-17 STATION 2 B		ON-SITE STATION 3 C		
	Volume (m ³)	Gross β (10 ⁻² pCi/m ³)	Volume (m ³)	Gross β (10 ⁻² pCi/m ³)	Volume (m ³)	Gross α (10 ⁻³ pCi/m ³)	Gross β (10 ⁻² pCi/m ³)
1/07/77	325	10 \pm 2	325	12 \pm 2	325	<5	9 \pm 2
1/15/77	280	8 \pm 2	280	11 \pm 2	280	-	7 \pm 1
1/22/77	290	6 \pm 1	290	7 \pm 1	290	-	7 \pm 1
1/30/77	325	6 \pm 1	325	6 \pm 1	325	-	3 \pm 1
2/05/77	245	4 \pm 1	245	4 \pm 2	245	<5	4 \pm 1
2/12/77	285	8 \pm 1	280	11 \pm 1	280	-	9 \pm 1
2/19/77	285	6 \pm 1	285	6 \pm 1	285	-	4 \pm 1
2/26/77	280	6 \pm 1	285	7 \pm 1	285	-	4 \pm 1
3/05/77	285	6 \pm 1	285	6 \pm 1	285	<5	7 \pm 1
3/12/77	285	12 \pm 2	285	13 \pm 2	285	-	14 \pm 2
3/19/77	285	9 \pm 2	280	10 \pm 2	280	-	9 \pm 2
3/26/77	280	9 \pm 1	280	10 \pm 1	280	-	7 \pm 1
4/02/77	290	19 \pm 3	295	19 \pm 3	290	2 \pm 1	19 \pm 3
4/09/77	285	13 \pm 2	285	14 \pm 2	285	-	10 \pm 2
4/16/77	285	37 \pm 5	285	36 \pm 5	285	-	30 \pm 5
4/23/77	285	35 \pm 5	285	34 \pm 5	285	-	27 \pm 4
4/30/77	285	19 \pm 3	285	27 \pm 4	285	-	23 \pm 4
5/07/77	290	54 \pm 5	290	49 \pm 5	290	<5	43 \pm 2
5/14/77	280	45 \pm 7	280	47 \pm 7	280	-	44 \pm 7
5/21/77	285	66 \pm 10	280	72 \pm 10	285	-	55 \pm 8
5/28/77	285	66 \pm 10	290	49 \pm 7	285	-	50 \pm 8
6/04/77	285	55 \pm 8	275	45 \pm 7	285	<5	52 \pm 8
6/12/77	330	48 \pm 7	325	51 \pm 8	330	-	43 \pm 6
6/18/77	245	39 \pm 6	245	45 \pm 7	245	-	31 \pm 4(a)
6/26/77	330	38 \pm 6	330	30 \pm 4	330	-	34 \pm 5

*Iodine-131 is sampled alternate weeks. Activity is < 0.03 pCi/m³ unless otherwise specified.
Data reported as "<" are at the 99% confidence level. All other data are at the 95% confidence level,
all based on counting errors.

(a) I-131 = .07 \pm .02 pCi/m³. Confirmed by decay studies and gamma isotopic analysis.

Dresden Additional Information for Table 5.0-2, 5.0-3, 5.0-4
5.0-5

1. Air Samplers

<u>Location</u>	<u>Distance (miles)</u>	<u>Direction (o)</u>
a. Onsite Station #1	0.6	300
b. Onsite Station #2	0.3	50
c. Onsite Station #3	0.4	180
d. Collins Road	0.9	260
e. Bennitt Farm	0.9	60
f. Pheasant Trail	0.9	140
g. Clay Products	2.0	180
h. Prairie Park	4.0	230
i. Coal City	7.5	190
j. Goose Lake Village	3.8	210
k. Morris	8.0	250
l. Lisbon	10.0	310
m. Minooka	4.5	5
n. Channahon	3.5	40
o. Joliet	12.5	60
p. Elmwood	8.0	80
q. Wilmington	8.0	130

2. TLD

Same as 1

3. Milk

<u>Location</u>	<u>Distance</u>	<u>Direction</u>
a. Davidson Farm	6	10
b. Mather Farm	16	40
c. Dorin Farm	7	220

4. Fish

<u>Location</u>	<u>Distance</u>	<u>Direction</u>
a. Dresden Lock & Dam	0.5	270

5. Surface Water

<u>Location</u>	<u>Distance</u>	<u>Direction</u>
a. Illinois River at E.J.E. R.R. Bridge	1	270

6. Cooling Water Sample

<u>Location</u>	<u>Distance</u>	<u>Direction</u>
a. Inlet-Unit 1	At Station	
b. Discharge		
1) Unit 1	At Station	
2) Unit 2/3		

7. Sediment

<u>Location</u>	<u>Distance</u>	<u>Direction</u>
a. Dresden Lock and Dam	0.5	270

TABLE 3.2-3

DRESDEN 2/3 NUCLEAR POWER STATION
DOSES RESULTING FROM EXPOSURE
TO RADIOACTIVITY DISCHARGED IN LIQUID WASTE
DECEMBER 1977 AND JANUARY TO DECEMBER 1977

PERIOD	DOSE BY PATHWAY (MREM)								
	INGESTION				SHORELINE		SWIMMING		BOATING
	WHOLE BODY	GI-LLI	THYROID	BONE	SKIN	WHOLE BODY	SKIN	WHOLE BODY	WHOLE BODY
THIS MONTH	.001	.001	.004	.001	.000	.000	0.000	0.000	0.000
LAST 3 MONTHS	.001	.001	.004	.001	.000	.000	0.000	0.000	0.000
LAST 6 MONTHS	.001	.001	.004	.001	.000	.000	0.000	0.000	0.000
SINCE JANUARY	.001	.001	.004	.001	.000	.000	0.000	0.000	0.000

ORGAN	TOTAL ORGAN DOSE SINCE JANUARY		
	TOTAL DOSE	MAXIMUM ALLOWABLE	PERCENT OF MAXIMUM
WHOLE BODY	.001	500	.000
GI-LLI	.001	1500	.000
THYROID	.004	1500	.000
BONE	.001	500	.000
SKIN	.000	3000	.000

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: DRESDEN NUCLEAR POWER STATION - UNIT 1

DOCKET NOS.: 50 - 10

YEAR: 1978

I. Gaseous Effluents	UNITS	JAN	FEB	MARCH	APRIL	MAY	JUNE	6 MO. TOTAL	TECH. SPEC. REF.
1. Gross Radioactivity Releases									
a) Total Release	curies	1.7E+04	7.3E+04	7.4E+04	8.3E+04	5.7E+04	8.9E+04	3.9E05	
b) Maximum Release Rate	uCi/sec	3.2E+04	4.6E+04	4.0E+04	3.9E+04	4.0E+04	4.2E+04	4.6E04	
c) Isotopes Released									
Kr-85m	curies	2.4E02	1.1E03	2.2E03	2.2E03	1.3E03	1.1E03	8.1E03	
Kr-87	curies	1.3E03	5.9E03	9.6E03	6.1E03	4.8E03	6.5E03	3.4E04	
Kr-88	curies	1.0E03	3.7E03	7.1E03	6.6E03	4.1E03	4.7E03	2.7E04	
Xe-133	curies	1.2E02	9.6E02	2.0E03	4.6E03	1.4E03	1.1E03	1.0E04	
Xe-135	curies	1.6E03	7.4E03	1.3E04	1.4E04	7.6E03	8.0E03	5.2E04	
Xe-135m	curies	2.3E03	9.8E03	1.6E04	1.0E04	2.2E03	1.2E04	5.2E04	
Xe-138	curies	1.0E04	4.4.E04	2.4E04	3.9E04	3.6E04	5.6E04	2.1E05	
d) Percent of Chimney Limit	%	1.09	5.37	5.10	5.75	3.81	6.13	4.45	
e) Average Release Rate	uCi/sec	6.2E+03	3.0E+04	2.7E+04	3.2E+04	2.1E+04	3.4E+04	2.5E04	
2. Iodine Releases									
a) Isotopes Released									
I-131	curies	1.2E-02	7.4E-02	7.3E-02	1.3E-01	7.0E-02	1.3E-01	4.9E-01	
I-133	curies	6.9E-02	4.9E-01	4.6E-01	5.6E-01	7.7E-01	9.1E-01	3.3E+00	
I-135	curies	6.9E-02	7.1E-01	6.8E-01	5.6E-01	1.2E+00	1.4E+00	4.6E+00	
b) Percent of Chimney Limit	%	0.19	1.28	1.14	2.04	1.09	2.04	1.31	
c) Average Release Rate	uCi/sec	4.5E-03	3.1E-02	2.7E-02	4.9E-02	2.6E-02	4.9E-02	3.1E-02	

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: DRESDEN NUCLEAR POWER STATION - UNIT 1

DOCKET NOS.: 50-10

YEAR: 1978

I. Gaseous Effluents (continued)	UNITS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	6 MO. TOTAL	TECH. SPEC. REF.
3. Particulate Releases	milli-								
a) Gross Radioactivity (BY)	curies	71.36	96.51	218.41	199.39	119.34	83.53	788.54	
b) Gross Alpha Radioactivity	mCi								
c) Isotopes Released	mCi								
Cr-51	mCi	-	-	-	-	-	-	-	
Sr-54	mCi	0.03	-	0.33	0.16	-	0.01	0.53	
Co-58	mCi	1.06	6.00	8.47	2.53	2.05	0.38	20.49	
Co-60	mCi	1.59	3.78	4.96	2.53	1.62	4.05	18.53	
Sr-89	mCi	48.33	42.25	116.74	88.79	69.12	49.27	414.50	
Sr-90	mCi	0.16	1.23	2.88	3.37	0.64	1.86	10.14	
Fr-95	mCi	0.28	-	-	-	-	0.10	0.38	
Nb-95	mCi	0.29	-	-	-	-	0.06	0.35	
Ru-103 Ag-110m	mCi	0.16	-	-	0.08	-	-	0.16	
I-131	mCi	1.71	6.45	8.32	14.59	2.38	0.60	34.05	
Cs-134 Cs-136	mCi	0.97	0.78	1.92	2.91	2.11	0.10	8.79	
Cs-137	mCi	2.95	1.86	5.44	6.34	4.11	19.71	40.41	
Ba-140	mCi	13.18	33.36	67.16	76.11	36.72	7.33	233.86	
Ce-141	mCi	0.29	0.80	1.05	0.90	0.29	0.06	3.39	
Ce-144	mCi	0.36	-	-	-	-	-	0.36	
d) Percent of chimney limit	%	1.11	1.66	3.40	3.21	1.86	1.34	2.10	
e) Average release rate	uCi/sec	2.7E-02	4.0 E-02	8.2 E-02	7.7 E-02	4.5 E-02	3.2 E-02	5.0E-02	
4. Sum of Iodines & Particulates									
a) Percent of Chimney Limit	%	1.30	2.94	4.53	5.24	2.95	3.38	3.41	
5. Gaseous Tritium									
a) Total Release	curies	9.9E+00	2.7 E + 00	6.2 E + 00	6.5 E 00	4.8 E + 00	8.1E + 00	3.8 E + 01	
b) Average Release Rate	uCi/sec	3.7 E +00	1.1 E + 00	2.3 E + 00	2.5 E 00	1.8 E + 00	3.1E + 00	2.4 E + 00	

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: Dresden Nuclear Power Station-Units 2/3

DOCKET NOS.: 50-237, 50-249

YEAR: 1978

I. Gaseous Effluents	UNITS	JAN	FEB	MARCH	APRIL	MAY	JUNE	6 MO. TOTAL	TECH. SPEC. REF.
1. Gross Radioactivity Releases									
a) Total Release 2/3 chimney	curies	4.1E+03	3.6E + 03	1.8E+03	9.9E+02	9.4E+03	3.5E+03	2.3E+04	6.6D.1.f. (1)
b) Maximum Release Rate	uCi/sec	6.6E+03	3.1E + 03	2.4E+03	9.1E+02	1.5E+04	4.6E+03	1.5E+04	6.6D.1.f. (2)
c) Isotopes Released									6.6D.1.f. (4)
Kr-85m	curies	2.0E02	1.4E01	---	---	2.7E+02	2.5E+01	5.1E+02	
Kr-87	curies	---	4.3E01	---	---	6.4E+02	8.4E+01	7.7E+02	
Kr-88	curies	---	4.3E01	---	---	3.2E+02	7.7E+01	4.4E+02	
Xe-133	curies	---	9.4E01	---	---	1.9E+02	3.5E+01	3.2E+02	
Xe-135	curies	1.1E03	6.4E02	1.8E03	9.9E+02	1.1E+03	3.3E+02	6.0E+03	
Xe-135m	curies	---	9.8E02	---	---	8.5E+01	1.1E+02	1.2E+03	
Xe-133	curies	2.8E03	1.8E03	---	---	6.8E+03	2.8E+03	1.4E+04	
d) Percent of Chimney Limit	%	0.17	0.17	0.09	0.05	0.41	0.15	0.16	6.6D.1.f. (3)
e) Average Release Rate	uCi/sec	1.5E+03	1.5E+03	6.6E+02	4.6E+02	3.5E+03	1.3E+03	1.5E+03	
2. Chimney Iodine Releases									6.6D.1.f. (1)
a) Isotopes Released									
I-131	curies	4.5E-02	6.3E-02	2.2E-02	9.1E-03	2.5E-02	4.8E-02	2.1E-01	
I-133	curies	2.7E-01	6.3E-01	5.9E-02	7.7E-02	3.1E-01	3.9E-01	1.7E+00	
I-135	curies	4.5E01	9.7E-01	1.5E-02	2.3E-01	3.8E-01	7.1E-01	4.7E+01	
b) Percent of Chimney Limit	%	0.39	0.63	0.22	0.10	0.30	0.43	0.31	6.6D.1.f. (3)
c) Average Release Rate	uCi/sec	1.7E-02	2.6E-02	8.1E-03	3.5E-03	9.4E-03	1.8E-02	1.3E-02	

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: Dresden Nuclear Power Station - Unit 2/3

DOCKET NOS.: 50-237, 50-249

YEAR: 1978

I. Gaseous Effluents(continued)	UNITS	JAN	FEB	MAR	APR	MAY	JUN	6 MO. TOTAL	TECH. SPEC. REF.
3. Chimney Particulate Release									
a) Gross Radioactivity(β - γ)	milli-curies	185.09	274.47	92.95	55.70	97.02	162.87	868.10	6.6D.1.f.(1)
b) Gross Alpha Radioactivity	mCi								
c) Isotopes Released									6.6D.1.f.(1)
Cr-51	mCi	1.67	-	-	-	-	-	1.67	
Co-54	mCi	0.06	0.05	0.80	1.18	0.09	0.70	2.88	
Co-58	mCi	-	-	-	-	-	0.24	0.24	
Co-60	mCi	2.07	5.00	4.15	8.80	1.43	9.71	31.16	
Sr-90 / 2r-95	mCi	82.18	75.92	36.59	15.92	33.87	24.97	269.45	
Sr-90 / Nb-95	mCi	0.19	0.25	0.20	0.11	0.17	0.16	1.08	
I-131	mCi	8.75	69.41	3.66	1.93	2.12	6.45	92.32	
Cs-134	mCi	-	-	-	0.55	-	-	0.55	
Cs-137	mCi	0.96	0.69	0.44	2.72	0.08	1.66	6.55	
Ba-140	mCi	87.47	121.45	47.11	23.47	59.26	117.89	456.65	
Ce-141	mCi	0.72	1.40	-	-	-	-	2.12	
Ce-144	mCi	1.02	-	-	-	-	-	1.02	
Ru-103	mCi	-	0.30	-	0.28	-	-	0.58	
d) Percent of Chimney Limit	%	1.61	2.70	0.93	0.61	0.90	1.47	1.29	6.6D.1.f.(3)
e) Average Release Rate	uCi/sec	6.9 E-02	1.1 E-01	3.5 E-02	2.1 E-02	3.6 E-02	6.3 E-02	5.6 E-02	
4. Vent Stack Iodine Release									6.6D.1.f.(1)
a) Isotopes Released									
I-131	curies	2.1 E-03	1.1 E-02	3.4 E-03	1.0E-03	3.4E-03	5.3E-03	2.6E-02	
I-133	curies	8.9E-03	4.0E-02	5.4E-03	4.2 E-03	3.0E-02	2.6E-02	1.1 E-01	
I-135	curies	4.4E-03	5.5E-02	-	-	4.2E-02	-	1.0 E-01	
b) Percent of Vent Stack Limit	%	0.65	3.76	1.05	0.32	1.05	1.70	1.39	6.6D.1.f.(3)
c) Average Release Rate	uCi/sec	7.8E-04	4.5E-03	1.3E-03	3.9E-04	1.3E-03	2.0E-03	1.7E-03	

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: Dresden Nuclear Power Station - Unit 2/3

DOCKET NOS.: 50-237, 50-249

YEAR: 1978

I. Gaseous Effluents (Continued)	UNITS	JAN	FEB	MAR	APR	MAY	JUN	6 MO. TOTAL	TECH. SPEC. REF.
5. Vent Stack Particulate Release	milli-								
(a) Gross Radioactivity (B-γ)	curies	25.72	28.02	41.63	40.58	28.96	31.37	196.28	
(b) Gross Alpha Radioactivity	mCi								6.6D.1.f.(1)
(c) Isotopes Released									
Cr-51	mCi	1.73	3.16	5.32	4.37	2.01	5.64	22.23	6.6D.1.f.(1)
Mn-54	mCi	1.86	0.34	2.85	2.69	1.13	1.94	10.81	
Co-58	mCi	0.40	0.19	0.91	0.45	0.64	0.45	3.04	
Fe-59	mCi	0.53	-	0.11	0.29	-	0.20	1.13	
Co-60	mCi	6.18	3.56	18.24	25.57	8.76	11.68	73.99	
Zn-65	mCi	-	-	-	-	-	-	-	
Sr-89	mCi	3.02	3.60	0.44	0.44	1.15	0.26	8.91	
Sr-90	mCi	0.02	0.03	0.04	0.05	0.11	0.03	0.28	
Zr-95	mCi	0.29	0.10	0.51	0.03	-	0.13	1.06	
Nb-95	mCi	0.40	0.04	0.47	0.32	0.27	0.13	1.63	
Ru-103	mCi	0.62	0.11	0.67	0.25	0.33	0.16	2.14	
(continued on next page)									
(d) Percent Vent Stack Limit	%	8.00	9.65	12.95	13.05	9.01	10.08	10.46	6.6D.1.f.(3)
(e) Average Release Rate	uCi/sec	9.6 E-03	1.2E-02	1.6E-02	1.6E-02	1.1E-02	1.2E-02	1.3E-02	
6. Sum of Iodine and Particulate									
a) Percent of Chimney Limit	%	1.99	3.32	1.16	0.71	1.20	1.90	1.60	6.6D.1.f.(3)
b) Percent of Vent Stack Limit	%	8.65	13.41	14.01	13.37	10.06	11.78	11.84	
7. Gaseous Iodine									
a) Release	curies	1.4E+01	3.4E+01	1.0E+01	1.3+01	9.1E+00	1.7E+01	9.7E+01	
b) Average Release Rate	uCi/sec	5.3E+00	1.4E+01	3.9E+00	5.0E+00	3.4E+00	6.7E+00	6.2E+00	
c) Percent Tech Spec Limit	%	NA	NA	NA	NA	NA	NA	NA	

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: DRESDEN NUCLEAR POWER STATION-UNITS 2/3

DOCKET NOS.: 50-237, 50-249

YEAR: 1978

[illegible]

REPORT OF RADIOACTIVE EFFLUENTS

Facility: Dresden Nuclear Power Station-Units 2/3

DOCKET NOS.: 50-237, 50-249

YEAR: 1978

[illegible]

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: DRESDEN NUCLEAR POWER STATION - UNIT 1

DOCKET NOS.: 50-10

YEAR: 1978

II. Liquid Effluents	UNITS	JAN	FEB	MARCH	APRIL	MAY	JUNE	6 MO. TOTAL	TECH. SPEC. REF
1. Gross Radioactivity (β - γ)									
a) Total Release	Curies	2.3E-02	2.5E-02	6.6E-02	8.3E-02	3.3E-02	1.2E-02	2.4E-01	
b) Average Concentration Released	uci/ml	1.0E-09	1.3E-09	3.0E-09	7.7E-08	1.2E-09	4.5E-10	1.7E-09	6.6D.1.e.(1)
c) Maximum Concentration Released	uci/ml	2.9E-08	2.1E-08	3.0E-08	4.5E-08	2.4E-08	2.6E-08	4.5E-08	6.6D.1.e.(4)
d) Percent of Tech Spec Limit	%	1.0	1.3	3.0	77.0	1.2	0.45	1.7	6.6D.1.e.(5)
based on average conc. released									6.6D.1.e.(6)
2. Tritium									
a) Total Release	Curies	2.8E-03	1.2E-03	1.7E-03	8.6E-03	3.8E-04	5.7E-03	2.0E-02	6.6D.1.e.(8)
b) Average Concentration Released	uci/ml	1.3E-10	6.0E-11	7.7E-11	7.0E-11	1.4E-11	2.2E-10	1.5E-10	
c) Percent of Tech Spec Limit	%	NA	NA	NA	NA	NA	NA	NA	
3. Dissolved Noble Gases									
a) Total Release	Curies	NONE	NONE	NONE	NONE	NONE	NONE	NONE	
b) Average Concentration Released	uci/ml	---	---	---	---	---	---	---	
c) Percent of Tech Spec Limit	%	---	---	---	---	---	---	---	
4. Gross Alpha Radioactivity									
a) Total Release	Curies	2.5E-05	1.5E-05	7.0E-05	1.3E-02	3.8E-05	1.8E-05	1.3E-02	
b) Average Concentration Released	uci/ml	1.1E-12	7.8E-13	3.2E-12	5.4E-10	1.4E-12	7.0E-13	9.3E-11	
5. Volume of Liquid Waste to Discharge Canal	Liters	1.3E+05	1.4E+05	3.9E+05	3.3E+05	1.5E+05	1.0E+05	1.2E+06	6.6D.1.e.(2)
6. Volume of Dilution Water	Liters	2.2E+10	2.0E+10	2.2E+10	2.4E+10	2.7E+10	2.6E+10	1.4E+11	6.6D.1.e.(3)

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: Dresden Nuclear Power Station - Unit 1

DOCKET NOS.: 50 - 10

YEAR: 1978

II. Liquid Effluents (continued)

[illegible]

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: DUNSMUIR NUCLEAR POWER STATION - UNIT 2/3

DOCKET NOS.: 50-237, 50-240

YEAR: 1978

II. Liquid Effluents	UNITS	JAN	FEB	MARCH	APRIL	MAY	JUNE	6 MO. TOTAL	TECH. SPEC. REF.
1. Gross Radioactivity (β - γ)									
a) Total Release	Curies	1.3E-01	1.2E-01	0	9.4E-02	4.4E-02	0	3.9E-01	
b) Average Concentration Released	uci/ml	1.5E-09	6.7E-09	0	7.5E-09	2.2E-09	0	2.9E-09	
c) Maximum Concentration Released	uci/ml	2.5E-08	2.7E-08	0	5.4E-08	6.0E-08	0	6.0E-08	
d) Percent of Tech Spec Limit based on average conc. released	%	1.5	6.7	0	7.5	2.2	0	2.9	
2. Tritium									
a) Total Release	Curies	3.1E+00	4.9E+00	0	6.9E+00	4.1E+00	0	1.9E+01	
b) Average Concentration Released	uci/ml	3.6E-08	2.7E-07	0	5.3E-07	2.0E-07	0	1.4E-07	
c) Percent of Tech Spec Limit	%	NA	NA	NA	NA	NA	NA	NA	
3. Dissolved Noble Gases									
a) Total Release	Curies	None	None	None	None	None	NONE	NONE	
b) Average Concentration Released	uci/ml	---	---	---	---	---	---	---	
c) Percent of Tech Spec Limit	%	---	---	---	---	---	---	---	
4. Gross Alpha Radioactivity									
a) Total Release	Curies	1.3E-04	8.5E-05	0	2.1E-03	1.1E-04	0	2.4E-03	
b) Average Concentration Released	uci/ml	1.6E-12	4.7E-12	0	1.7E-10	5.4E-12	0	1.7E-11	
5. Volume of Liquid Waste to Discharge Canal	Liters	7.4E+05	6.7E+05	0	1.2E+06	7.7E+05	0	3.4E+06	
6. Volume of Dilution Water	Liters	8.5E+10	1.8E+10	0	1.3E+10	2.0E+10	0	1.4E+11	

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: Dresden Nuclear Power Station - Unit 2/3

DOCKET NOS.: 50-237, 50-240

YEAR: 1978

[illegible]

REPORT OF RADIOACTIVE EFFLUENTS

FACILITY: Dresden Nuclear Power Station

DOCKET NOS.: 50-10, 50-237, 50-249

YEAR: 1978

[illegible]

DRESDEN NUCLEAR POWER STATION

SOLID WASTE DISPOSITION

YEAR 1978

MONTH	NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
JANUARY	13	Motor Freight (Exclusive use only)	Sheffield Nuclear Center
	1	Motor Freight (Exclusive use only)	Barnwell So. Carolina
FEBRUARY	23	Motor Freight (Exclusive use only)	Sheffield Nuclear Center
MARCH	32	Motor Freight (Exclusive use only)	Sheffield Nuclear Center
	4	Motor Freight (Exclusive use only)	Barnwell So. Carolina
APRIL	5	Exclusive use vehicle	Sheffield Nuclear Center
	7	Exclusive use vehicle	Barnwell So. Carolina
MAY	21	Exclusive use vehicle	Barnwell So. Carolina
JUNE	22	Exclusive use vehicle	Barnwell So. Carolina