

B 09/11/78

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)
DISTRIBUTION FOR INCOMING MATERIAL

50-269/270/287

7

REC: OREILLY J P
NRC

ORG: PARKER W O
DUKE PWR

DOCDATE: 08/28/78
DATE RCVD: 09/11/78

DOCTYPE: LETTER NOTARIZED: NO

COPIES RECEIVED
LTR 1 ENCL 1

SUBJECT:
FORWARDING SUBJECT FACILITY'S SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE AND
ENVIRON MONITORING REPT COVERING THE PERIOD JANUARY 1, 1978 THROUGH JUNE 30,
1978.

PLANT NAME: OCONEE - UNIT 1
OCONEE - UNIT 2
OCONEE - UNIT 3

REVIEWER INITIAL: XJM
DISTRIBUTER INITIAL: J8m

***** DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS *****

NOTES:
1. M. CUNNINGHAM -- ALL AMENDMENTS TO FSAR AND CHANGES TO TECH SPECS

ANNUAL ENVIRONMENTAL RPTS (OL STAGE).
(DISTRIBUTION CODE A007)

FOR ACTION: BR CHIEF ORB#4 BC**W/7 ENCL

INTERNAL: REG FILE**W/ENCL
I & E**W/2 ENCL
ENVIRO SPEC BR**W/ENCL
RAD ASSESSMENT BR**W/ENCL

NRC PDR**W/ENCL
EED**W/ENCL
EFFLUENT TREAT SYS**W/ENCL
KASTNER**W/ENCL

EXTERNAL: LPDR'S
WALHALLA, SC**W/ENCL
TERA**W/ENCL
NSIC**W/ENCL
ACRS CAT B**W/ENCL

Emerson
I

DISTRIBUTION: LTR 20 ENCL 20
SIZE: 1P+13P

CONTROL NBR: 782480287

***** THE END *****

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

August 28, 1978

REGULATORY DOCKET FILE COPY

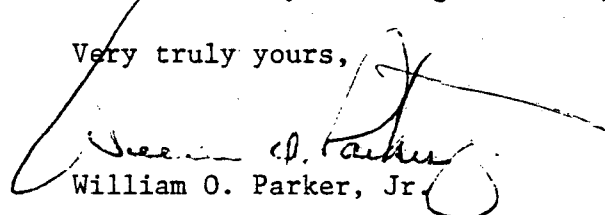
Mr. James P. O'Reilly, Director
Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Suite 1217
230 Peachtree Street, Northwest
Atlanta, Georgia 30303

Reference: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Mr. O'Reilly:

Pursuant to 10CFR50, §50.36 and Oconee Nuclear Station Technical Specification 6.6.1.2(c), please find attached data concerning radioactive effluents released from Oconee Nuclear Station. This report covers the period January 1 through June 30, 1978.

Very truly yours,


William O. Parker, Jr.

RLG:vr
Attachment

cc: Director, Office of Inspection and Enforcement

782480287

A007
A031
S
1/1

ATTACHMENT 1

RADIOACTIVE EFFLUENT RELEASES
SOLID WASTE

RADIOACTIVE EFFLUENT RELEASES
SOLID WASTE

Total volume of solid waste packaged (cubic feet) 26,073.8

Total estimated activity involved (Curies) 752.

Disposal of materials shipped off-site: All shipments to Chem-Nuclear Systems Waste Disposal Facility at Barnwell, South Carolina.

<u>DATE</u>	<u>CUBIC FT.</u>	<u># OF CURIES</u>
1/3/78	185	2.38
1/6/78	185	2.61
1/7/78	238	1.89
1/9/78	238	1.14E+1
1/10/78	130	1.45
1/12/78	377.4	4.16E-1
1/13/78	205	2.10
1/17/78	205	1.25E+1
1/18/78	235	1.50E+1
1/19/78	205	4.07
1/21/78	238	4.78
1/22/78	238	8.93
1/23/78	766.6	6.88E-1
1/24/78	205	1.86E+1
1/25/78	391.4	2.23
1/27/78	185	2.80E+1
1/30/78	357.4	2.82E-1
2/1/78	205	9.23
2/2/78	283	5.08
2/6/78	130	5.10E-4
2/7/78	185	3.74
2/9/78	166	1.40E-2
2/9/78	80	1.20E-4
2/9/78	80	1.29E-4
2/13/78	185	6.04

<u>DATE</u>	<u>CUBIC FT.</u>	<u># OF CURIES</u>
2/15/78	756.2	2.10E-1
2/15/78	60	8.24E-1
2/15/78	60	5.55E-5
2/16/78	185	3.02
2/17/78	185	3.49
2/20/78	657.8	3.32E-1
2/22/78	205	6.21
2/27/78	60	1.94E-2
2/27/78	60	6.78E-2
2/27/78	60	5.39E-2
2/27/78	60	2.25E-2
2/27/78	60	6.20E-2
3/1/78	185	7.29
3/3/78	185	8.44E-2
3/5/78	238	1.71E+1
3/8/78	589	4.17E-1
3/10/78	205	6.79
3/14/78	7.4	5.10
3/14/78	205	1.26E+1
3/15/78	637.8	3.38E-1
3/17/78	205	7.39
3/21/78	205	9.43
3/22/78	74	4.08E+1
3/27/78	205	7.82
3/30/78	7.4	1.19
3/31/78	205	7.91
3/31/78	238	8.23
4/4/78	167	8.10E-1
4/5/78	238	4.23E+1
4/5/78	468.4	5.96E-1
4/7/78	238	7.29
4/7/78	205	1.04E+1
4/11/78	166	3.00E-2
4/11/78	166	7.00E-2
4/12/78	205	1.17E+1
4/14/78	14.8	1.02
4/14/78	205	9.89
4/18/78	205	7.73

<u>DATE</u>	<u>CUBIC FT.</u>	<u># OF CURIES</u>
4/18/78	14.8	5.10E-1
4/20/78	14.8	2.55
4/20/78	238	4.76
4/21/78	170	4.25
4/21/78	14.8	1.70
4/22/78	512	8.00E-2
4/24/78	592	2.90E-1
4/25/78	205	3.38
4/25/78	14.8	5.95
4/28/78	14.8	6.63
5/1/78	205	3.99
5/3/78	7.4	3.40E+1
5/4/78	537.2	1.03
5/5/78	238	1.09E+1
5/5/78	7.4	1.19
5/6/78	205	9.03
5/7/78	7.4	6.80E-1
5/7/78	238	2.24
5/12/78	238	1.73E+1
5/14/78	130	2.06
5/16/78	130	1.07E+1
5/18/78	238	1.14
5/18/78	205	3.16
5/19/78	868	2.19
5/19/78	45	8.73E+1
5/22/78	238	3.06
5/23/78	238	1.04
5/26/78	238	4.00
5/26/78	576.4	1.78E-1
5/26/78	205	3.19
5/28/78	238	2.43
5/31/78	205	2.66
6/3/78	205	3.85
6/4/78	205	2.22
6/5/78	238	6.51
6/6/78	205	1.96

<u>DATE</u>	<u>CUBIC FT.</u>	<u># OF CRIES</u>
6/8/78	205	3.32
6/9/78	81.4	3.04
6/9/78	205	2.50
6/9/78	238	2.05
6/12/78	205	7.37
6/12/78	238	1.16
6/14/78	205	1.06E+1
6/15/78	130	1.03E+1
6/16/78	205	1.43E+1
6/16/78	621.6	7.03E-1
6/17/78	130	1.53E+1
6/20/78	205	1.40E+1
6/26/78	130	4.10E-1
6/28/78	205	3.63
6/28/78	205	1.74E+1
6/30/78	238	7.84
6/30/78	562.4	1.84
6/30/78	<u>205</u>	<u>8.09</u>

TOTAL 26073.8

7.52E+2

ATTACHMENT 2

RADIOACTIVE EFFLUENT RELEASES
LIQUID RELEASES

1. LIQUID RELEASES

1. GROSS RADIOACTIVITY	UNITS	JANUARY	FEBRUARY	MARCH	SUB-TOTAL
A. TOTAL RELEASE	CURIES	4.48E-01	2.88E-01	2.84E-01	1.04E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.37E-09	7.14E-09	2.54E-09	2.97E-09
C. MAXIMUM CONCENTRATION RELEASED	UCI/ML	1.77E-07	1.52E-07	3.48E-06	1.53E-07
2. TRITIUM					
A. TOTAL RELEASE	CURIES	8.19E+01	7.84E+01	1.48E+02	3.24E+02
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	3.96E-07	2.39E-06	1.40E-06	7.24E-07
3. DISSOLVED SOLUBLE GASES					
A. TOTAL RELEASE	CURIES	4.13E-01	1.79E-01	2.57E-01	8.52E-01
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.01E-09	4.45E-09	2.49E-09	2.43E-09
4. GROSS ALPHA RADIOACTIVITY					
A. TOTAL RELEASE	CURIES	0.	0.	0.	0.
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	0.	0.	0.	0.
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL	LITERS	1.69E+07	7.03E+06	1.16E+07	3.55E+07
6. VOLUME OF DILUTION WATER	LITERS	2.76E+11	4.73E+10	1.04E+11	3.53E+11
7. ISOTOPES RELEASED	CURIES				
54-LA-140		2.38E-03	5.34E-04	4.03E-04	3.42E-03
54-99		1.30E-02	9.14E-03	5.95E-03	2.71E-02
54-131		7.51E-02	3.74E-02	1.22E-01	2.36E-01
54-133		3.13E-03	3.14E-03	5.67E-03	1.17E-02
54-135		3.17E-01	7.76E-02	2.01E-01	5.95E-01
54-137		5.70E-03	1.62E-03	3.67E-03	1.10E-02
54-138		1.49E-01	4.57E-02	4.35E-02	2.39E-01
54-139		8.37E-02	2.06E-02	2.48E-02	1.22E-01
54-140		4.79E-02	2.95E-02	1.36E-02	9.29E-02
54-95		5.52E-02	4.52E-02	2.73E-02	1.37E-01
54-91		2.24E-03	1.49E-03	2.23E-03	5.95E-03
54-97		3.93E-03	3.54E-03	2.93E-03	1.54E-02
54-17		0.	1.44E-05	2.16E-05	3.59E-05
54-97		1.39E-04	4.20E-06	8.52E-05	2.29E-04
54-7		9.22E-03	1.61E-02	5.57E-03	3.10E-02
54-133A		3.72E-04	2.73E-04	1.47E-03	2.11E-03
54-132		8.01E-07	0.	0.	8.01E-07
54-135		7.99E-04	7.79E-05	2.41E-04	1.12E-03
54-95A		7.32E-04	0.	1.26E-03	2.04E-03
54-95		3.34E-04	0.	5.63E-05	3.90E-04
54-95		2.22E-05	0.	2.74E-05	4.96E-05
54-95		8.12E-04	5.34E-04	3.32E-04	1.73E-03
54-92		1.57E-04	0.	0.	1.57E-04
54-140		1.12E-03	9.40E-04	6.19E-04	2.63E-03
54-95		0.	0.	0.	0.
54-99		5.53E-04	0.	0.	5.53E-04
54-132		0.	0.	0.	0.
54-110		5.06E-03	1.16E-02	4.72E-03	2.07E-02
54-139		0.	0.	5.45E-05	5.45E-05
54-95		1.26E-03	2.76E-03	7.91E-04	4.51E-03
54-97		3.34E-04	3.77E-05	7.17E-05	5.35E-04
54-124		0.	0.	0.	0.
54-135		5.46E-03	1.65E-03	7.79E-04	7.39E-03
54-137		5.10E-05	2.35E-04	2.30E-04	5.16E-04
54-136A		0.	0.	0.	0.
54-131		5.59E-03	5.37E-03	3.10E-03	1.47E-02
54-95		4.08E-05	9.05E-04	4.46E-04	1.39E-03
54-139		5.38E-04	7.23E-04	4.35E-04	1.70E-03
54-97		2.76E-04	7.26E-05	6.31E-05	3.42E-04
54-99A		1.59E-04	0.	1.62E-05	1.55E-04
54-94		9.24E-06	0.	2.94E-05	3.66E-05
54-115A		0.	0.	0.	0.
54-92		5.96E-04	9.77E-04	2.92E-04	1.37E-03
54-115A		4.33E-05	0.	2.23E-05	7.05E-05
54-115		1.37E-04	4.61E-04	4.40E-05	5.62E-04
54-134		0.	0.	0.	0.
54-91		3.26E-05	3.42E-06	0.	4.12E-05
54-134		0.	1.31E-06	0.	1.31E-06
54-95		5.31E-03	1.14E-03	2.75E-04	7.23E-03
54-125A		2.15E-05	0.	0.	2.15E-05
54-135		3.40E-06	0.	0.	3.40E-06
54-95		3.40E-02	7.40E-02	4.53E-02	2.25E-01
54-103		2.55E-05	1.18E-05	1.70E-04	1.39E-04
54-125		1.10E-03	2.02E-04	4.36E-05	1.35E-03
54-125		1.42E-03	0.	0.	1.42E-03
54-135		0.	1.35E-05	0.	1.35E-05
54-123A		0.	0.	0.	0.
54-15		0.	0.	0.	0.
54-105A		2.57E-05	0.	3.44E-05	6.00E-05
54-135A		0.	0.	0.	0.
54-91		0.	3.73E-05	0.	4.03E-05
54-65		0.	7.03E-05	0.	7.03E-05
8. PERCENT OF TECHNICAL SPECIFICATIONS LIMIT (15 CI) FOR TOTAL ACTIVITY RELEASED		3.26E+00	1.92E+00	1.76E+00	6.93E+00

II. LIQUID RELEASES

	UNITS	1st QUARTER	2nd QUARTER	SUB-TOTAL
1. GROSS RADIOACTIVITY				
A. TOTAL RELEASE	CURIES	1.04E+00	2.52E+00	3.56E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.97E-09	7.48E-09	5.13E-09
C. MAXIMUM CONCENTRATION RELEASED	UCI/ML	1.06E-07	2.34E-07	1.93E-07
2. TRITIUM				
A. TOTAL RELEASE	CURIES	3.24E+02	2.49E+02	5.73E+02
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	9.24E-07	7.40E-07	8.34E-07
3. DISSOLVED NUBLE GASES				
A. TOTAL RELEASE	CURIES	3.52E-01	3.01E+00	3.86E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.43E-09	8.94E-09	5.62E-09
4. GROSS ALPHA RADIOACTIVITY				
A. TOTAL RELEASE	CURIES	0.	0.	0.
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	0.	0.	0.
5. VOLUME OF LIQUID WASTE DISCHARGE CANAL				
	LITERS	3.55E+07	3.28E+07	6.83E+07
6. VOLUME OF DILUTION WATER				
	LITERS	3.50E+11	3.37E+11	6.87E+11
7. ISOTOPES RELEASED				
	CURIES			
SA-140		3.42E-03	1.38E-02	1.72E-02
SM-69		2.91E-02	3.18E-02	6.09E-02
I-131		2.86E-01	3.18E-01	6.05E-01
I-132		1.19E-02	1.34E-02	2.53E-02
XE-133		5.95E-01	2.40E+00	2.99E+00
XE-135		1.10E-02	2.97E-02	4.07E-02
CS-137		2.39E-01	1.00E-01	3.39E-01
CS-134		1.29E-01	5.93E-02	1.88E-01
CO-60		9.29E-02	1.80E-01	2.73E-01
CO-138		1.39E-01	1.35E+00	1.49E+00
CR-51		5.95E-03	1.13E-01	1.19E-01
MN-54		1.54E-02	2.50E-02	4.04E-02
KR-87		3.59E-05	1.84E-05	5.43E-05
ZR-97		2.29E-04	2.21E-03	2.44E-03
NR-97		3.10E-02	1.46E-01	1.77E-01
XE-133M		2.11E-03	1.97E-02	2.18E-02
I-132		8.01E-07	0.	8.01E-07
CS-136		1.12E-03	4.75E-03	5.87E-03
KR-85M		2.04E-03	2.09E-04	2.25E-03
KR-88		3.90E-04	2.61E-04	6.51E-04
Zr-95		4.96E-05	1.39E-03	1.44E-03
SR-90		1.73E-03	1.37E-03	3.40E-03
SR-92		1.67E-04	4.32E-05	2.30E-04
CE-144		2.68E-03	6.45E-03	9.13E-03
SI-36		0.	0.	0.
IC-99		5.33E-04	0.	5.33E-04
SB-122		0.	0.	0.
AG-110M		2.07E-02	5.13E-02	7.20E-02
SA-139		6.45E-06	3.32E-03	3.33E-03
NE-95		4.31E-03	1.76E-02	2.24E-02
FE-59		5.36E-04	4.30E-03	5.33E-03
SB-124		0.	0.	0.
I-135		7.89E-03	7.35E-04	8.68E-03
I-137		5.16E-04	1.97E-03	2.49E-03
CS-135M		0.	0.	0.
XE-131M		1.47E-02	4.43E-02	7.90E-02
ZR-95		1.39E-03	1.29E-02	1.43E-02
IC-239		1.70E-03	1.11E-03	2.81E-03
IC-57		3.42E-04	2.72E-03	3.06E-03
IC-59M		1.85E-04	2.31E-03	2.99E-03
IA-24		3.36E-05	4.75E-05	8.61E-05
CS-113M		0.	0.	0.
Y-92		1.37E-03	5.56E-04	2.42E-03
IN-113M		7.06E-05	1.64E-05	2.70E-05
TE-113		5.62E-04	2.65E-04	9.27E-04
CS-134		0.	0.	0.
SA-141		4.12E-05	3.80E-04	4.21E-04
I-134		1.31E-06	0.	1.31E-06
SB-99		7.23E-03	3.45E-02	4.17E-02
SR-125M		2.15E-05	0.	2.15E-05
CS-135		3.40E-06	5.50E-03	5.51E-03
KR-85		2.26E-01	4.95E-01	7.21E-01
PO-103		1.39E-04	5.63E-03	5.77E-03
SB-125		1.35E-03	1.38E-03	2.72E-03
SI-125		1.42E-03	0.	1.42E-03
XE-135		1.35E-05	2.37E-03	2.38E-03
SR-125M		0.	0.	0.
FE-13		0.	0.	0.
AG-106M		5.00E-05	2.92E-05	8.92E-05
XE-135M		0.	0.	0.
SR-91		5.03E-05	5.42E-05	1.44E-04
SI-95		7.03E-05	3.54E-04	4.34E-04
Y-95		0.	0.	0.
CO-109		0.	0.	0.
SR-144		0.	0.	0.
RU-106		0.	0.	0.
8. PERCENT OF TECHNICAL SPECIFICATIONS				
LIMIT (0.5-0.0) AND TOTAL ACTIVITY 1.0				

ATTACHMENT 3

RADIOACTIVE EFFLUENT RELEASES
AIRBORNE RELEASES

II. AIRBORNE RELEASES

	UNITS	APRIL	MAY	JUNE	SUB-TOTAL
1. TOTAL NUCLE GASES	CURIES	8.98E+03	7.50E+02	3.33E+03	1.31E+04
2. TOTAL HALOGENS	CURIES	5.93E-02	6.93E-03	1.18E-02	7.81E-02
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	8.40E-04	1.05E-03	6.99E-03	8.38E-03
4. TOTAL TRITIUM	CURIES	3.08E+01	4.52E-01	9.13E+01	1.23E+02
5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY	CURIES	0.	0.	0.	0.
6. MAXIMUM NUCLE GAS RELEASE RATE	UCI/SEC	1.60E+03	1.60E+03	1.60E+03	1.60E+03
7. PERCENT OF APPLICABLE LIMIT FOR:					

A. NUCLE GASES	%	1.74E+01	1.47E+00	6.53E+00	2.56E+01
B. HALOGENS	%	1.56E+01	1.82E+00	3.12E+00	2.05E+01
C. PARTICULATES	%	7.63E-02	9.55E-02	6.35E-01	9.07E-01

3. ISOTOPES RELEASED: CURIES

PARTICULATES

CS-137	2.33E-05	2.62E-05	7.23E-05	1.22E-04
SA-LA-140	1.09E-05	1.29E-05	2.62E-05	5.00E-05
SR-90	2.16E-07	2.25E-07	2.09E-07	6.50E-07
CS-134	8.78E-06	3.77E-06	3.06E-05	4.32E-05
SR-90	2.92E-06	3.04E-06	2.82E-06	8.78E-06
CU-60	7.84E-07	7.15E-05	4.72E-05	1.19E-04
CS-136	3.95E-06	1.98E-07	2.18E-06	6.34E-06
CS-138	9.17E-06	2.66E-06	5.70E-05	6.89E-05
SR-90	1.11E-07	1.85E-07	1.70E-07	4.67E-07
SR-90	4.32E-11	2.68E-07	2.22E-08	2.91E-07
SR-90	1.27E-08	1.03E-07	1.28E-08	1.29E-07
CU-60	3.04E-06	2.71E-06	7.84E-06	1.36E-05
SR-90	0.	1.07E-07	3.50E-06	8.60E-06
AG-110m	2.08E-05	2.18E-05	5.40E-05	9.66E-05
CR-51	1.01E-04	8.33E-05	1.42E-04	3.26E-04
SR-123m	0.	0.	0.	0.
TC-99m	9.13E-07	4.04E-07	1.45E-06	2.77E-06
AG-110m	1.52E-06	3.38E-07	2.85E-08	1.89E-06
SR-90	3.39E-04	5.25E-04	3.07E-03	3.93E-03
SR-239	6.72E-05	5.23E-05	9.50E-05	2.15E-04
CO-115	2.35E-05	2.40E-05	5.28E-05	1.05E-04
CE-144	7.26E-05	4.92E-05	9.91E-05	2.21E-04
SR-90	1.49E-05	1.56E-05	4.11E-05	7.16E-05
Y-91m	0.	0.	0.	0.
RU-103	6.39E-11	1.22E-07	1.20E-08	1.34E-07
SR-90	9.23E-07	2.32E-07	2.64E-08	1.23E-06
SA-139	2.44E-06	1.68E-05	1.26E-06	2.04E-05
SR-123m	0.	0.	0.	0.
SR-90	0.	1.16E-07	1.33E-05	1.34E-05
CU-67	4.41E-11	4.09E-07	2.45E-08	4.33E-07
FE-59	9.56E-07	1.68E-06	7.00E-06	9.63E-06
ZR-95	1.62E-05	6.47E-06	1.56E-05	3.83E-05
SR-90	6.71E-11	1.21E-07	4.55E-07	5.76E-07
ZR-97	4.81E-11	1.22E-07	2.20E-08	1.44E-07
Y-92	6.50E-05	6.54E-05	3.03E-03	3.16E-03
SR-123	1.71E-05	2.27E-05	4.05E-05	8.03E-05
Zr-95	1.54E-06	5.59E-06	1.56E-05	2.27E-05
IN-167	1.02E-05	1.38E-05	2.38E-05	4.79E-05
IN-115m	6.46E-06	8.16E-06	5.17E-06	1.98E-05
HA-22	0.	1.02E-07	1.32E-09	1.03E-07
NI-65	9.63E-06	1.40E-05	3.02E-05	5.38E-05
FR-144	0.	0.	0.	0.
CU-109	0.	0.	0.	0.
TE-134	0.	0.	0.	0.
RU-106	0.	0.	0.	0.
TE-132	0.	0.	0.	0.

HALOGENS

I-131	5.54E-02	4.33E-03	9.00E-03	6.87E-02
I-133	3.34E-03	5.92E-05	2.05E-03	5.45E-03
I-135	4.21E-04	2.24E-04	5.97E-04	1.34E-03
I-132	2.94E-05	5.65E-05	5.54E-05	1.41E-04
I-134	4.57E-10	1.59E-05	2.56E-07	1.62E-05
F-18	1.39E-04	2.46E-03	5.14E-05	2.65E-03

GASES

KR-85	6.29E+01	7.29E+01	1.49E+01	1.51E+02
XE-133	5.76E+03	6.44E+02	3.15E+03	1.25E+04
KR-88	1.83E-01	2.24E+00	5.31E+00	7.74E+00
KR-87	9.83E-02	3.37E-01	3.84E-01	8.19E-01
KR-85m	2.69E-01	5.57E-01	5.36E+00	6.69E+00
XE-133	5.54E-01	4.09E-02	3.40E-02	6.29E-01
XE-133m	1.42E-01	6.46E-02	1.13E-01	3.20E-01
XE-135	4.01E+01	2.31E+00	1.00E+02	1.43E+02
AR-41	4.43E-02	2.38E+00	2.39E+01	2.63E+01
XE-133m	8.07E-01	1.10E+00	2.45E+01	1.08E+02

II. AIRBORNE RELEASES

	UNITS	1st QUARTER	2nd QUARTER	SUB-TOTAL
1. TOTAL NOBLE GASES	CURIES	3.08E+03	1.31E+04	1.61E+04
2. TOTAL HALOGENS	CURIES	3.09E-02	7.81E-02	1.09E-01
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	4.96E-03	8.88E-03	1.38E-02
4. TOTAL TRITIUM	CURIES	4.19E-01	1.23E+02	1.23E+02
5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY	CURIES	0.	0.	0.
6. MAXIMUM NOBLE GAS RELEASE RATE	UCI/SEC	1.60E+03	1.60E+03	1.60E+03
7. PERCENT OF APPLICABLE LIMIT FOR:				
A. NOBLE GASES	%	6.03E+00	2.56E+01	3.16E+01
B. HALOGENS	%	9.12E+00	2.05E+01	2.87E+01
C. PARTICULATES	%	4.51E-01	8.07E-01	1.26E+00

8. ISOTOPES RELEASED

CURIES

PARTICULATES

CS-137	9.24E-06	1.22E-04	1.31E-04
SA-LA-140	1.22E-07	5.00E-05	5.01E-05
SR-90	2.01E-04	6.50E-07	2.01E-04
CS-134	2.14E-05	4.32E-05	6.45E-05
SR-89	9.45E-04	8.78E-06	9.54E-04
CU-68	7.14E-06	1.19E-04	1.27E-04
CS-136	1.56E-06	6.34E-06	7.90E-06
CS-138	3.73E-05	6.89E-05	1.06E-04
AN-24	3.60E-07	4.67E-07	8.27E-07
AU-99	0.	2.91E-07	2.91E-07
IS-93	6.60E-09	1.29E-07	1.35E-07
CD-60	2.57E-05	1.36E-05	3.93E-05
HA-24	0.	8.60E-06	8.60E-06
AG-110M	1.62E-06	9.66E-05	9.82E-05
CR-51	2.85E-07	3.26E-04	3.26E-04
SN-123M	0.	0.	0.
TC-99M	3.83E-08	2.77E-06	2.80E-06
AG-108M	0.	1.89E-06	1.89E-06
HB-88	3.70E-03	3.93E-03	7.64E-03
IP-23M	0.	2.15E-04	2.15E-04
CD-115	9.90E-06	1.05E-04	1.14E-04
CE-144	0.	2.21E-04	2.21E-04
SR-91	0.	7.16E-05	7.16E-05
(-14)	0.	0.	0.
AU-103	4.74E-08	1.34E-07	1.81E-07
AN-56	1.84E-08	1.23E-06	1.25E-06
SA-139	0.	2.04E-05	2.04E-05
SN-123M	0.	0.	0.
SR-92	0.	1.34E-05	1.34E-05
CU-57	0.	4.33E-07	4.33E-07
FE-59	0.	9.63E-06	9.63E-06
ZR-95	0.	3.33E-05	3.83E-05
IS-97	4.17E-07	5.76E-07	9.93E-07
ZR-97	0.	1.44E-07	1.44E-07
Y-92	0.	3.16E-03	3.16E-03
SB-125	0.	8.03E-05	8.03E-05
LI-65	0.	2.27E-05	2.27E-05
IN-187	0.	4.79E-05	4.79E-05
IN-110M	0.	1.98E-05	1.98E-05
HA-22	0.	1.03E-07	1.03E-07
NI-65	0.	5.38E-05	5.38E-05
PR-144	0.	0.	0.
CD-109	0.	0.	0.
TE-134	0.	0.	0.
RU-106	0.	0.	0.
TE-132	0.	0.	0.

HALOGENS

I-131	2.94E-02	6.87E-02	9.81E-02
I-133	1.03E-03	5.45E-03	6.48E-03
I-135	4.09E-05	1.34E-03	1.38E-03
I-132	9.23E-06	1.41E-04	1.50E-04
I-134	7.73E-07	1.62E-05	1.69E-05
F-18	3.61E-04	2.65E-03	3.01E-03

GASES

KR-85	3.29E+02	1.51E+02	4.80E+02
XE-133	2.36E+03	1.25E+04	1.49E+04
KR-86	3.34E+00	7.74E+00	1.61E+01
KR-87	0.	3.19E-01	3.19E-01
KR-85M	0.	6.69E+00	6.69E+00
XE-136	0.	6.29E-01	6.29E-01
XE-135M	0.	3.20E-01	3.20E-01
XE-135	1.38E+02	1.43E+02	3.31E+02
AR-41	3.33E+01	2.53E+01	5.96E+01
XE-133M	5.14E+00	1.06E+02	1.13E+02
XE-131M	1.53E+02	7.31E+01	2.26E+02