

Duke Power Company
Catawba Nuclear Generation Department
4800 Concord Road
York, SC 29745

M.S. TUCKMAN
Vice President
(803)831-3205 Office
(803)831-3426 Fax



DUKE POWER

February 25, 1993

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

Subject: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414
Semiannual Radioactive Effluent Release Report

Pursuant to Catawba Nuclear Station Technical Specification 6.9.1.7 and Catawba Selected Licensee Commitments Manual Section 16.11-16.2, find enclosed the Catawba Semiannual Radioactive Effluent Release Report for the period July 1, 1992 to December 31, 1992.

Attachment I contains information regarding radioactive effluent releases.

Attachment II contains information regarding solid radioactive waste shipped offsite.

There were no revisions to the Process Control Program (PCP) or to Catawba's Offsite Dose Calculation Manual (ODCM) during this reporting period and there were no unplanned releases during this reporting period.

Very truly yours,

A handwritten signature in dark ink, appearing to read "M. S. Tuckman".

M. S. Tuckman

CRL/ARERR93.DOC

Attachments

020100

9303020443 921231
PDR ADOCK 05000413
R PDR

Print on recycled paper

TEAS
11

U. S. Nuclear Regulatory Commission
February 25, 1993
Page 2

xc: S. D. Ebnetter
Regional Administrator, Region II

W. T. Orders
Senior Resident Inspector

R. E. Martin, ONRR

ATTACHMENT I

Summary of Liquid and Gaseous Effluents Report

Supplemental Information to the Liquid and Gaseous Effluents Report

Fuel Cycle Calculations

Meteorological Survey

UNIT 1

RADIOACTIVE EFFLUENT RELEASES
DATE : 02/05/93

4. FORTH RELEASES

YEAR 1962

02/19/93

SKIN	MAXIMUM DOSE-	1.03E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	92.51 %				
BONE	MAXIMUM DOSE-	3.23E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	FE 55	7.77 %				
	CO 60	25.05 %				
	CS 134	19.40 %				
	CS 137	45.15 %				
LIVER	MAXIMUM DOSE-	4.91E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	CO 60	17.50 %				
	CS 134	29.97 %				
	CS 137	39.48 %				
T. BODY	MAXIMUM DOSE-	3.04E-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	7.71 %				
	CO 60	8.39 %				
	CS 134	38.93 %				
	CS 137	39.96 %				
THYROID	MAXIMUM DOSE-	1.21E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	14.29 %				
	CO 60	66.87 %				
	I 131	13.05 %				
KIDNEY	MAXIMUM DOSE-	2.25E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	7.68 %				
	CO 60	35.93 %				
	CS 134	20.84 %				
	CS 137	29.49 %				
LUNG	MAXIMUM DOSE-	1.60E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	10.80 %				
	FE 55	7.05 %				
	CO 60	50.54 %				
	CS 134	11.30 %				
	CS 137	16.39 %				
GI-LLI	MAXIMUM DOSE-	1.86E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	CO 60	5.82 %				
	NB 95	86.94 %				

SKIN	MAXIMUM DOSE-	6.90E-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	97.89 %				
BONE	MAXIMUM DOSE-	3.00E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	FE 55	7.31 %				
	CS 134	24.93 %				
	CS 137	63.64 %				
LIVER	MAXIMUM DOSE-	4.60E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	5.59 %				
	CO 60	12.86 %				
	CS 134	31.79 %				
	CS 137	49.00 %				
T. BODY	MAXIMUM DOSE-	3.04E-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	11.46 %				
	CO 60	5.78 %				
	CS 134	38.70 %				
	CS 137	41.73 %				
THYROID	MAXIMUM DOSE-	9.32E-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	27.55 %				
	CO 60	59.72 %				
	I 131	9.16 %				
KIDNEY	MAXIMUM DOSE-	2.03E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	12.65 %				
	CO 60	27.43 %				
	CS 134	22.97 %				
	CS 137	34.15 %				
LUNG	MAXIMUM DOSE-	1.36E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	18.86 %				
	FE 55	5.46 %				
	CO 60	40.88 %				
	CS 134	13.19 %				
	CS 137	20.11 %				
GI-LLI	MAXIMUM DOSE-	8.30E-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	CO 60	8.99 %				
	NB 55	78.80 %				

SKIN	MAXIMUM DOSE-	1.11E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 58	5.60 %				
	CO 60	81.73 %				
	CS 137	5.46 %				
BONE	MAXIMUM DOSE-	1.77E-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	21.79 %				
	CS 137	79.57 %				
LIVER	MAXIMUM DOSE-	2.35E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	CS 134	31.93 %				
	CS 137	59.24 %				
T. BODY	MAXIMUM DOSE-	1.61E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	5.12 %				
	CS 134	37.49 %				
	CS 137	54.20 %				
THYROID	MAXIMUM DOSE-	1.79E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	34.09 %				
	CO 60	43.02 %				
	I 131	13.07 %				
KIDNEY	MAXIMUM DOSE-	8.74E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	6.96 %				
	CO 60	8.79 %				
	CS 134	27.45 %				
	CS 137	54.70 %				
LUNG	MAXIMUM DOSE-	4.46E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	13.66 %				
	CO 60	17.24 %				
	CS 134	20.75 %				
	CS 137	42.40 %				
GI-LLI	MAXIMUM DOSE-	2.78E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	NB 95	83.77 %				

SKIN	MAXIMUM DOSE-	8.34E-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 58	10.95 %				
	CO 60	66.80 %				
	SB 125	10.50 %				
BONE	MAXIMUM DOSE-	1.43E-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	24.93 %				
	CS 137	61.25 %				
	TH 228	10.27 %				
LIVER	MAXIMUM DOSE-	1.78E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	CS 134	39.20 %				
	CS 137	52.21 %				
T. BODY	MAXIMUM DOSE-	1.25E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	CS 134	44.96 %				
	CS 137	46.66 %				
THYROID	MAXIMUM DOSE-	1.11E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	35.47 %				
	CO 58	7.05 %				
	CO 60	42.78 %				
	SB 125	7.01 %				
KIDNEY	MAXIMUM DOSE-	6.62E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	5.93 %				
	CO 60	7.16 %				
	CS 134	33.60 %				
	CS 137	48.07 %				
LUNG	MAXIMUM DOSE-	3.30E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	11.90 %				
	CO 60	14.35 %				
	CS 134	25.97 %				
	CS 137	38.10 %				
GI-LLI	MAXIMUM DOSE-	1.61E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	CO 58	11.95 %				
	SB 95	68.49 %				
	TH 228	7.33 %				

SKIN	MAXIMUM DOSE-	3.66E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	84.55 %				
BONE	MAXIMUM DOSE-	3.65E-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	23.41 %				
	CS 137	67.37 %				
LIVER	MAXIMUM DOSE-	4.89E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	CO 60	5.71 %				
	CS 134	34.12 %				
	CS 137	53.26 %				
T. BODY	MAXIMUM DOSE-	3.33E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	5.70 %				
	CS 134	40.30 %				
	CS 137	49.01 %				
THYROID	MAXIMUM DOSE-	5.01E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	27.96 %				
	CO 60	52.46 %				
	I 131	9.67 %				
KIDNEY	MAXIMUM DOSE-	1.70E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	7.38 %				
	CO 60	13.85 %				
	CS 134	28.06 %				
	CS 137	47.04 %				
LUNG	MAXIMUM DOSE-	1.04E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	13.42 %				
	CO 60	25.17 %				
	CS 134	19.66 %				
	CS 137	33.79 %				
GI-LLI	MAXIMUM DOSE-	6.99E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	CO 58	5.13 %				
	CO 60	5.04 %				
	NB 95	80.84 %				

CATAMBA NUCLEAR STATION
UNIT 1
RADIOACTIVE EFFLUENT RELEASES
DATE : 02/03/93

II. AIRBORNE RELEASES	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL	YEAR : 1992
1. TOTAL NOBLE GASES	CURIES	5.82E+01	7.11E+01	2.61E+02	9.82E+01	4.24E+02	
2. TOTAL HALOGENS	CURIES	5.31E-04	1.54E-05	3.62E-05	2.45E-06	5.85E-04	
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	1.17E-04	3.35E-05	3.81E-04	6.89E-05	6.32E-04	
4. TOTAL TRITIUM	CURIES	2.15E+01	2.62E+01	2.41E+01	1.73E+01	8.91E+01	
5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
6. MAXIMUM NOBLE GAS RELEASE RATE	MC/SEC	1.40E+03	1.40E+03	1.40E+03	1.40E+03	8.00E+02	
7. RADIONUCLIDES RELEASED	CURIES						EC RATIO
N-2		2.15E+01	2.62E+01	2.41E+01	1.73E+01	8.91E+01	8.17E-04
PARTICULATES							
F-18		7.72E-05	1.00E-05	2.03E-06	6.24E-06	8.35E-05	9.28E-10
NA-24		0.00E+00	4.37E-04	3.25E-08	3.23E-08	1.49E-07	2.08E-11
CR-51		0.00E+00	5.00E+00	1.98E-04	8.27E-04	2.07E-04	6.29E-09
MN-54		5.10E-04	2.54E-04	3.76E-04	0.00E+00	1.14E-03	1.12E-08
MN-56		1.12E-06	1.31E-07	1.27E-08	0.00E+00	1.81E-07	8.89E-12
CO-57		0.00E+00	0.00E+00	3.74E-08	2.18E-10	3.76E-08	4.11E-11
CO-58		9.00E-04	7.21E-04	1.27E-04	7.56E-05	2.12E-04	2.68E-07
CO-60		0.00E+00	4.82E-10	2.83E-05	3.83E-06	3.31E-05	6.51E-07
GE-70		7.87E-07	2.18E-07	0.00E+00	0.00E+00	7.01E-06	1.23E-09
BR-82		8.42E-08	1.12E-07	6.04E-08	7.75E-08	3.84E-07	7.15E-11
BR-86		2.05E-05	1.58E-05	8.75E-07	0.00E+00	4.03E-05	4.40E-10
RU-88		0.00E+00	1.25E-07	0.00E+00	0.00E+00	1.25E-07	6.14E-10
T-99M		0.00E+00	5.33E-10	0.00E+00	0.00E+00	5.33E-10	2.67E-15
ZR-97		0.00E+00	0.00E+00	0.00E+00	6.84E-09	6.84E-09	3.26E-12
NO-97		8.01E-10	0.00E+00	0.00E+00	0.00E+00	8.01E-10	7.87E-15
MO-99		0.00E+00	3.42E-05	0.00E+00	0.00E+00	3.42E-05	1.64E-12
RU-106		0.00E+00	2.06E-09	0.00E+00	0.00E+00	2.06E-09	1.01E-09
SB-124		0.00E+00	3.71E-10	0.00E+00	0.00E+00	3.71E-10	1.22E-12
TE-131M		0.00E+00	4.41E-04	0.00E+00	0.00E+00	4.41E-04	4.33E-11
CS-134		0.00E+00	0.42E-04	3.34E-09	5.78E-09	1.15E-08	5.84E-11
CS-136		1.00E-10	0.00E+00	1.80E-05	0.00E+00	1.80E-05	2.07E-08
CS-137		0.00E+00	8.25E-04	0.00E+00	4.00E-04	1.22E-03	6.81E-11
CS-138		1.02E-07	4.74E-04	9.82E-04	5.72E-04	1.62E-03	1.25E-10
BA-139		3.22E-04	5.54E-08	3.22E-09	0.00E+00	4.18E-08	1.52E-12
CE-141		7.88E-07	0.00E+00	0.00E+00	0.00E+00	7.88E-07	8.80E-10
W-187		0.00E+00	4.82E-10	0.00E+00	0.00E+00	4.82E-10	8.45E-14
SB-124		0.00E+00	8.05E-08	3.84E-04	0.00E+00	4.84E-08	5.20E-11
BR-86M		3.62E-07	2.17E-01	1.28E-07	2.84E-08	5.81E-01	2.84E-11
HALOGENS							
I-125		2.72E-04	2.22E-04	1.28E-05	0.00E+00	2.87E-04	1.41E-04
I-132		8.72E-07	2.71E-04	1.28E-05	4.10E-08	2.84E-05	1.31E-09
I-133		2.58E-04	4.24E-04	2.77E-07	2.81E-08	2.83E-04	2.80E-07
I-134		1.94E-08	3.04E-04	1.40E-07	0.00E+00	3.23E-05	5.24E-11
I-135		4.28E-07	2.54E-05	7.60E-06	0.00E+00	3.48E-06	5.70E-10
GASES							
AR-41		1.86E+01	7.71E+01	9.48E+01	7.58E+01	2.07E+02	1.97E-02
AR-45		2.11E+01	0.00E+00	0.00E+00	0.00E+00	2.11E+01	2.84E-02
AR-45M		1.37E-01	1.88E-01	0.77E-07	2.47E-07	3.22E-01	3.32E-04
AR-47		8.28E+03	9.15E-02	1.45E-02	0.00E+00	5.82E-02	2.61E-06
AR-48		2.54E-01	1.71E-01	8.80E-02	9.80E-03	3.94E-01	4.30E-03
XE-131M		1.21E-01	2.81E+00	1.42E-01	0.00E+00	3.82E+00	7.82E-03
XE-133		3.22E+01	5.43E+01	1.00E+02	1.88E+01	2.05E+02	4.13E-04
XE-135M		8.87E-04	7.75E-01	1.49E+00	2.85E-01	3.27E+00	3.83E-06
XE-135		3.03E+00	0.44E+01	2.81E+02	2.17E+02	7.17E+02	1.84E-04
XE-135M		2.07E+00	0.28E+01	3.23E+04	1.18E+00	1.77E+04	2.71E-06
XE-138		0.00E+00	0.00E+00	0.00E+00	1.08E-03	9.87E-04	1.90E-08
TOTAL EC RATIO							2.19E-02

CATAWBA UNIT 1 GAS DOSE 001-091 92 RELEASE WEIGHTED MET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES NNE

02/24/93

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 1.11E-01 MILLIRADS
GAMMA AIR DOSE = 2.05E-01 MILLIRADS

TOTAL BODY DOSE = 1.36E-01 MILLIREM
XE133 5.27%
AR 41 89.65%

TOTAL SKIN DOSE = 2.31E-01 MILLIREM
XE133 8.71%
AR 41 84.55%

CATANBA UNIT 1 GAS DOSE 001-091 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES ENE

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 77.51%

MAXIMUM ORGAN DOSE = 1.14E-01 MILLIREM

H 3 84.13%
I 131 14.89%

CATAMBA UNIT 1 GAS DOSE 092-182 92 RELEASE WEIGHTED NET REPORT SUMMARY 02/24/93
SPECIAL LOCATION
AT 0.50 MILES S

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 9.64E-02 MILLIRADS
GAMMA AIR DOSE = 1.24E-01 MILLIRADS

TOTAL BODY DOSE = 8.10E-02 MILLIREM
XE133 12.53%
XE135 5.49%
AR 41 79.62%

TOTAL SKIN DOSE = 1.48E-01 MILLIREM
XE133 19.36%
XE135 7.99%
AR 41 70.09%

CATAWBA UNIT 1 GAS DOSE 092-182 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES 5

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 78.18%

MAXIMUM ORGAN DOSE = 8.20E-02 MILLIREM
H 3 99.77%

02/24/93

CATAMBA UNIT 1 GAS DOSE 183-274 92 RELEASE WEIGHTED NET REPORT SUMMARY

SPECIAL LOCATION
AT 0.50 MILES NE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 6.20E-01 MILLIRADS
GAMMA AIR DOSE = 1.23E+00 MILLIRADS

TOTAL BODY DOSE = 8.14E-01 MILLIREM
XE133 9.66%
AR 41 94.55%

TOTAL SKIN DOSE = 1.36E+00 MILLIREM
XE133 7.68%
AR 41 90.63%

CATAWBA UNIT 1 GAS DOSE 183-274 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES ENE

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 77.76%

MAXIMUM ORGAN DOSE = 1.18E-01 MILLIREM
H 5 97.11%

CATAWBA UNIT 1 GAS DOSE 275-366 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES NE

02/24/93

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 6.07E-01 MILLIRADS
GAMMA AIR DOSE = 1.62E+00 MILLIRADS

TOTAL BODY DOSE = 1.08E+00 MILLIREM
AR 41 98.36%

TOTAL SKIN DOSE = 1.74E+00 MILLIREM
AR 41 97.59%

CATANBA UNIT 1 GAS DOSE 275-366 92 RELEASE WEIGHTED NET REPORT SUMMARY 02/24/93
SPECIAL LOCATION
AT 0.50 MILES S

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - GI-TRACK
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 77.95%

MAXIMUM ORGAN DOSE = 8.86E-02 MILLIREM
H 3 99.56%

CATAMBA UNIT 1 GAS DOSE 001-366 92 RELEASE WEIGHTED NET REPORT SUMMARY 02/24/93
SPECIAL LOCATION
AT 0.50 MILES NE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 1.41E+00 MILLIRADS
GAMMA AIR TSE = 3.14E+00 MILLIRADS

TOTAL BODY DOSE = 2.08E+00 MILLIREM
AR 41 95.70%

TOTAL SKIN DOSE = 3.43E+00 MILLIREM
AR 41 92.97%

CATAWBA UNIT 1 GAS DOSE 001-366 92 RELEASE WEIGHTED MET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES ENE

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 77.89%

MAXIMUM ORGAN DOSE = 3.40E-01 MILLIREM

H 3 93.81%
I 131 5.62%

UNIT 2

CATAMBA NUCLEAR STATION
UNIT 2
RADIOACTIVE EFFLUENT RELEASES
DATE : 02/05/93

1. LIQUID RELEASES

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL	YEAR : 1992
1. GROSS RADIOACTIVITY							
A. TOTAL RELEASE	CURIES	0.43E+02	5.29E+02	1.57E+01	1.61E+01	4.63E+01	
B. AVERAGE CONCENTRATION RELEASED	UCI/Ml	4.28E+09	2.37E+09	7.78E+09	8.38E+09	5.53E+09	
C. MAXIMUM CONCENTRATION RELEASED	UCI/Ml	3.40E+08	1.43E+08	2.16E+03	1.55E+08	3.40E+08	
2. TRITIUM							
A. TOTAL RELEASE	CURIES	5.04E+01	7.71E+01	1.61E+02	9.03E+01	3.86E+02	
B. AVERAGE CONCENTRATION RELEASED	UCI/Ml	2.28E+08	3.40E+08	7.96E+08	5.12E+08	4.59E+08	
3. DISSOLVED NOBLE GASES							
A. TOTAL RELEASE	CURIES	7.79E+04	3.58E+02	9.41E+04	7.79E+05	4.98E+03	
B. AVERAGE CONCENTRATION RELEASED	UCI/Ml	1.72E+11	1.58E+10	4.68E+11	4.96E+12	5.82E+11	
4. GROSS ALPHA ACTIVITY							
A. TOTAL RELEASE	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
B. AVERAGE CONCENTRATION RELEASED	UCI/Ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL	LITERS	4.27E+07	1.15E+08	1.32E+08	1.23E+08	4.13E+08	
6. VOLUME OF DILUTION WATER	LITERS	2.21E+10	2.23E+10	2.02E+10	1.82E+10	8.41E+10	
7. RADIONUCLIDES RELEASED	CURIES						EC RATIO

H-3	5.04E+01	7.71E+01	1.61E+02	9.03E+01	3.86E+02	4.59E+03
T-18	4.17E+04	1.63E+04	1.23E+03	1.86E+04	1.98E+03	3.36E+08
NA-24	5.43E+06	6.43E+08	3.87E+06	0.32E+05	4.87E+05	1.17E+09
CA-51	0.55E+03	0.00E+00	1.43E+02	5.80E+03	2.26E+02	5.42E+07
NN-54	0.23E+03	2.78E+03	4.08E+03	1.55E+03	1.16E+02	4.60E+06
FE-55	0.55E+02	0.41E+02	4.09E+02	3.19E+02	1.33E+01	1.58E+05
FI-59	6.52E+04	0.00E+00	1.36E+03	8.92E+04	2.89E+03	3.20E+05
CO-57	1.59E+04	1.28E+04	3.13E+04	3.32E+04	8.12E+04	7.61E+07
CO-58	0.19E+02	8.18E+03	8.37E+02	8.93E+02	1.82E+01	1.03E+04
CO-60	1.80E+02	1.34E+02	1.82E+02	6.52E+02	5.76E+02	2.97E+04
ZN-65	7.18E+05	0.00E+00	1.84E+05	4.51E+05	1.45E+04	1.32E+07
SE-75	0.00E+00	0.00E+00	0.00E+00	2.37E+05	2.92E+05	4.99E+09
BR-82	0.07E+07	1.98E+06	0.00E+00	0.00E+00	1.86E+06	5.84E+10
RR-89	0.00E+00	0.00E+00	0.00E+00	1.04E+01	1.84E+01	8.39E+10
SI-91	0.00E+00	1.82E+05	0.00E+00	0.00E+00	1.82E+05	1.09E+07
SR-92	8.28E+05	2.93E+05	8.33E+05	6.85E+05	2.45E+04	7.89E+08
ZR-95	5.07E+04	2.19E+04	8.04E+04	3.04E+04	1.86E+03	1.13E+06
ZR-97	0.00E+00	0.00E+00	6.34E+04	0.00E+00	6.34E+04	8.39E+07
NE-99	1.08E+03	4.47E+04	1.48E+03	6.28E+04	3.58E+03	1.41E+06
NR-97	9.41E+04	3.43E+04	8.84E+04	3.26E+04	1.97E+02	7.82E+08
KC-137M	0.00E+00	0.26E+06	2.18E+07	0.00E+00	3.48E+06	4.14E+06
RU-103	0.00E+00	0.00E+00	1.28E+05	0.00E+00	1.28E+05	5.58E+06
AG-110M	2.87E+01	3.62E+05	1.83E+04	4.07E+04	8.65E+04	1.17E+06
I-131	7.43E+04	1.28E+04	3.27E+04	0.00E+00	7.88E+04	8.47E+08
I-132	5.03E+07	0.00E+00	0.00E+00	0.00E+00	5.03E+07	8.04E+11
I-133	4.94E+05	4.72E+05	1.30E+05	0.00E+00	1.18E+04	1.86E+07
I-135	2.72E+06	0.58E+09	0.00E+00	0.00E+00	5.82E+06	2.29E+04
SR-122	0.00E+00	0.00E+00	7.22E+06	2.07E+04	2.15E+04	2.55E+07
SR-124	8.08E+04	2.17E+06	1.87E+04	1.55E+03	2.58E+03	4.39E+06
SR-125	5.43E+07	1.21E+03	7.72E+03	1.43E+02	3.82E+02	1.11E+05
SM-113	1.89E+04	4.07E+05	1.30E+04	4.88E+05	3.69E+04	1.54E+07
TE-131M	0.00E+00	0.00E+00	5.19E+06	0.00E+00	5.19E+06	7.72E+09
CS-134	3.02E+04	0.00E+00	9.32E+04	6.72E+04	2.34E+03	2.86E+05
CS-137	0.58E+04	3.75E+04	2.28E+03	1.84E+03	4.44E+03	5.29E+05
CS-138	4.97E+03	0.00E+00	0.00E+00	0.00E+00	4.97E+03	1.48E+11
BA-133	0.00E+00	0.00E+00	1.88E+06	0.00E+00	1.88E+06	1.12E+09
BA-139	0.00E+00	0.00E+00	6.02E+06	0.00E+00	6.02E+06	3.58E+10
BA-140	8.73E+07	0.00E+00	1.19E+05	0.00E+00	4.07E+08	3.77E+08
LA-140	8.23E+07	8.07E+06	5.05E+05	8.89E+06	6.47E+05	8.74E+08
AC-228	0.00E+00	1.04E+06	0.00E+00	0.00E+00	0.74E+06	3.30E+06
TH-232	0.00E+00	0.00E+00	0.00E+00	2.78E+03	2.78E+03	1.43E+04
SR-124	0.00E+00	0.00E+00	0.00E+00	8.93E+06	8.93E+06	1.57E+06
AP-41	0.00E+00	4.40E+06	0.00E+00	0.00E+00	4.40E+06	5.18E+03
HR-80	1.52E+04	2.78E+03	7.18E+04	0.00E+00	4.26E+03	5.19E+07
HR-88	0.00E+00	7.83E+04	0.00E+00	2.39E+06	9.47E+06	1.17E+09
RE-133	1.18E+04	1.82E+04	2.18E+04	7.50E+05	5.73E+04	8.82E+06
RE-155M	0.00E+00	8.21E+06	0.00E+00	0.00E+00	8.21E+06	9.72E+10
RE-156	8.17E+06	1.13E+03	7.47E+07	5.39E+07	2.09E+05	2.47E+09
RE-158	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.59E+06

TOTAL EC RATIO : 5.22E+03

SKIN MAXIMUM DOSE- 1.03E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- SHORE
 CO 60 92.51 %

BONE MAXIMUM DOSE- 3.23E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- FISH
 FE 55 7.77 %
 CO 60 25.05 %
 CS 134 19.40 %
 CS 137 45.15 %

LIVER MAXIMUM DOSE- 4.91E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- FISH
 CO 60 17.50 %
 CS 134 29.97 %
 CS 137 39.48 %

T. BODY MAXIMUM DOSE- 3.04E-02 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH
 H 3 7.71 %
 CO 60 8.39 %
 CS 134 38.93 %
 CS 137 39.96 %

THYROID MAXIMUM DOSE- 1.21E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- SHORE
 H 3 14.29 %
 CO 60 66.87 %
 I 131 13.05 %

KIDNEY MAXIMUM DOSE- 2.25E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- FISH
 H 3 7.68 %
 CO 60 35.93 %
 CS 134 20.84 %
 CS 137 29.49 %

LUNG MAXIMUM DOSE- 1.60E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- SHORE
 H 3 10.80 %
 FE 55 7.05 %
 CO 60 50.54 %
 CS 134 11.30 %
 CS 137 16.39 %

GI-LLI MAXIMUM DOSE- 1.86E-01 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH
 CO 60 5.82 %
 NB 95 86.94 %

SKIN MAXIMUM DOSE- 6.90E-03 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- SHORE
 CO 60 94.89 %

BONE MAXIMUM DOSE- 3.00E-02 MREM CRITICAL AGE- CHILD CRITICAL PATHWAY- FISH
 FE 55 7.31 %
 CS 134 24.93 %
 CS 137 63.64 %

LIVER MAXIMUM DOSE- 4.60E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- FISH
 H 3 5.59 %
 CO 60 12.86 %
 CS 134 31.79 %
 CS 137 44.00 %

T. BODY MAXIMUM DOSE- 3.04E-02 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH
 H 3 11.46 %
 CO 60 5.78 %
 CS 134 38.70 %
 CS 137 41.73 %

THYROID MAXIMUM DOSE- 9.32E-03 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- SHORE
 H 3 27.55 %
 CO 60 59.72 %
 I 131 9.16 %

KIDNEY MAXIMUM DOSE- 2.03E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- FISH
 H 3 12.65 %
 CO 60 27.43 %
 CS 134 22.97 %
 CS 137 34.15 %

LUNG MAXIMUM DOSE- 1.36E-02 MREM CRITICAL AGE- TEEN CRITICAL PATHWAY- FISH
 H 3 18.86 %
 FE 55 5.46 %
 CO 60 40.88 %
 CS 134 13.19 %
 CS 137 20.11 %

GI-LLI MAXIMUM DOSE- 8.30E-02 MREM CRITICAL AGE- ADULT CRITICAL PATHWAY- FISH
 CO 60 8.99 %
 NB 95 78.80 %

SKIN	MAXIMUM DOSE-	1.11E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 58	5.60 %				
	CO 60	81.73 %				
	CS 137	5.46 %				
BONE	MAXIMUM DOSE-	1.77E-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	21.79 %				
	CS 137	74.57 %				
LIVER	MAXIMUM DOSE-	2.35E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	CS 134	31.93 %				
	CS 137	59.24 %				
T. BODY	MAXIMUM DOSE-	1.61E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	5.12 %				
	CS 134	37.49 %				
	CS 137	54.20 %				
THYROID	MAXIMUM DOSE-	1.79E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	34.09 %				
	CO 60	43.02 %				
	I 131	13.07 %				
KIDNEY	MAXIMUM DOSE-	8.74E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	6.96 %				
	CO 60	8.79 %				
	CS 134	27.45 %				
	CS 137	54.70 %				
LUNG	MAXIMUM DOSE-	4.46E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	13.66 %				
	CO 60	17.24 %				
	CS 134	20.75 %				
	CS 137	42.40 %				
GI-LLI	MAXIMUM DOSE-	2.78E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	NB 95	83.77 %				

SKIN	MAXIMUM DOSE-	8.34E-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 58	10.95 %				
	CO 60	66.80 %				
	SB 125	10.50 %				
BONE	MAXIMUM DOSE-	1.43E-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	24.93 %				
	CS 137	61.23 %				
	TH 228	10.27 %				
LIVER	MAXIMUM DOSE-	1.78E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	CS 134	39.20 %				
	CS 137	52.21 %				
T. BODY	MAXIMUM DOSE-	1.25E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	CS 134	44.96 %				
	CS 137	46.66 %				
THYROID	MAXIMUM DOSE-	1.11E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	35.47 %				
	CO 58	7.05 %				
	CO 60	42.78 %				
	SB 125	7.01 %				
KIDNEY	MAXIMUM DOSE-	6.62E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	5.93 %				
	CO 60	7.16 %				
	CS 134	33.60 %				
	CS 137	48.07 %				
LUNG	MAXIMUM DOSE-	3.30E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	11.90 %				
	CO 60	14.35 %				
	CS 134	25.97 %				
	CS 137	38.10 %				
GI-LLI	MAXIMUM DOSE-	1.61E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	CO 58	11.95 %				
	NB 95	68.49 %				
	TH 228	7.33 %				

SKIN	MAXIMUM DOSE-	3.66E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	84.55 %				
BONE	MAXIMUM DOSE-	3.65E-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	23.41 %				
	CS 137	67.37 %				
LIVER	MAXIMUM DOSE-	4.89E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	CO 60	5.71 %				
	CS 134	34.12 %				
	CS 137	53.26 %				
T. BODY	MAXIMUM DOSE-	3.33E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	H 3	5.70 %				
	CS 134	40.30 %				
	CS 137	49.01 %				
THYROID	MAXIMUM DOSE-	5.01E-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	H 3	27.96 %				
	CO 60	52.46 %				
	I 131	9.67 %				
KIDNEY	MAXIMUM DOSE-	1.90E-01 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
	H 3	7.38 %				
	CO 60	13.85 %				
	CS 134	28.06 %				
	CS 137	47.04 %				
LUNG	MAXIMUM DOSE-	1.04E-01 MREM	CRITICAL AGE	TEEN	CRITICAL PATHWAY-	FISH
	H 3	13.42 %				
	CO 60	25.17 %				
	CS 134	19.66 %				
	CS 137	33.79 %				
GI-LLI	MAXIMUM DOSE-	6.99E-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
	CO 58	5.13 %				
	CO 60	5.04 %				
	NB 95	80.84 %				

CATAMBA NUCLEAR STATION
UNIT 2
RADIOACTIVE EFFLUENT RELEASES
DATE : 02/03/83

II. AIRBORNE RELEASES	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL	YEAR : 1982
1. TOTAL NOBLE GASES	CURIES	5.82E+01	7.11E+01	2.07E+02	6.82E+01	4.28E+02	
2. TOTAL HALOGENS	CURIES	5.31E-04	1.54E-05	3.62E-05	2.45E-06	5.45E-04	
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	1.17E-04	3.35E-05	3.81E-04	6.99E-05	6.32E-04	
4. TOTAL TRITIUM	CURIES	7.15E+01	2.62E+01	2.49E+01	1.79E+01	8.31E+01	
5. TOTAL PARTICULATE GROSS ALPHA ACTIVITY	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
6. MAXIMUM NOBLE GAS RELEASE RATE	UCI/SEC	1.40E+02	1.60E+02	1.40E+02	1.60E+02	8.00E+02	
7. RADIOISOTOPES RELEASED	CURIES						EC RATIO
H-2		2.15E+01	2.02E+01	2.41E+01	1.72E+01	8.31E+01	8.17E-04
PARTICULATES							
F-18		7.72E-05	1.00E-05	2.83E-06	6.24E-06	9.55E-05	9.39E-10
NA-24		0.00E+00	6.57E-08	3.25E-08	5.23E-08	1.49E-07	2.00E-11
CR-51		0.00E+00	0.00E+00	1.88E-04	6.27E-06	2.07E-04	6.79E-09
MN-54		5.10E-04	2.54E-04	3.76E-06	0.00E+00	1.14E-03	1.12E-08
MN-56		1.12E-08	1.57E-07	1.27E-08	0.00E+00	1.89E-07	8.89E-12
CO-57		0.00E+00	0.00E+00	3.74E-08	2.18E-10	3.76E-08	4.11E-11
CO-58		9.30E-06	7.21E-09	1.27E-04	3.56E-05	2.12E-04	2.08E-07
CO-60		0.00E+00	4.62E-10	2.40E-05	3.83E-06	3.31E-05	6.51E-07
SE-75		7.87E-07	2.18E-07	0.00E+00	0.00E+00	1.01E-06	1.23E-09
NO-82		8.43E-08	1.12E-07	6.04E-06	3.75E-08	3.64E-07	7.15E-11
RE-88		2.25E-05	1.58E-05	8.73E-07	0.00E+00	4.83E-05	4.40E-10
RE-89		0.00E+00	1.25E-07	0.00E+00	0.00E+00	1.25E-07	6.16E-13
Y-91M		0.00E+00	5.32E-10	0.00E+00	0.00E+00	5.32E-10	2.42E-15
ZR-97		0.00E+00	0.00E+00	0.00E+00	6.84E-09	6.84E-09	3.26E-12
NS-97		6.01E-10	0.00E+00	0.00E+00	0.00E+00	6.01E-10	2.87E-15
MO-99		0.00E+00	3.45E-09	0.00E+00	0.00E+00	3.45E-09	1.89E-12
RU-106		0.00E+00	2.86E-06	0.00E+00	0.00E+00	2.86E-06	1.01E-09
SR-124		0.00E+00	3.71E-11	0.00E+00	0.00E+00	3.71E-11	1.22E-12
TE-121M		5.50E+00	4.41E-08	0.00E+00	0.00E+00	4.41E-08	4.32E-11
CS-134		6.00E+00	2.42E-09	3.34E-09	5.74E-09	1.15E-08	5.64E-11
CS-136		1.89E-10	0.00E+00	1.40E-05	0.00E+00	1.89E-05	2.07E-09
CS-137		0.00E+00	6.25E-09	0.00E+00	4.00E-09	1.22E-08	6.01E-11
CS-138		1.42E-07	4.14E-06	9.82E-08	5.72E-06	1.07E-05	1.25E-10
BA-139		3.22E-09	5.54E-01	3.22E-09	0.00E+00	6.19E-09	1.52E-12
CE-141		7.88E-07	0.00E+00	0.00E+00	0.00E+00	7.88E-07	9.80E-10
W-187		0.01E+00	9.62E-10	0.00E+00	0.00E+00	9.62E-10	9.45E-14
SR-126		5.87E-10	4.05E-06	3.84E-09	0.00E+00	4.89E-06	6.30E-11
BR-80M		3.62E-07	2.12E-04	1.29E-07	2.86E-06	3.41E-07	2.44E-11
HALOGENS							
I-121		2.72E-04	2.20E-04	1.28E-05	0.00E+00	2.87E-04	1.41E-08
I-132		6.73E-07	0.77E-06	2.29E-06	4.10E-06	7.89E-05	1.31E-09
I-133		2.50E-04	4.24E-06	2.37E-07	2.81E-06	2.85E-04	2.40E-07
I-134		1.94E-04	3.04E-04	1.40E-07	0.00E+00	3.38E-04	5.24E-11
I-135		4.10E-07	2.49E-06	7.00E-09	0.00E+00	3.49E-06	3.70E-10
GASES							
KR-81		1.84E+01	1.31E+03	9.46E+01	7.59E+01	2.00E+02	1.47E-02
KR-83		2.11E-01	8.30E+00	0.00E+00	0.00E+00	2.11E-01	2.46E-07
KR-85M		1.07E-01	1.88E-01	0.71E-01	7.87E-02	3.54E-01	3.82E-06
AR-37		6.73E-05	5.19E-02	1.95E-02	0.00E+00	6.52E-02	2.91E-06
KR-89		2.58E-01	1.71E-01	8.00E-01	8.80E-02	3.94E-01	4.20E-05
XE-129M		1.21E-01	7.81E-02	1.42E+00	0.00E+00	1.62E+00	7.95E-03
XE-133		7.05E+01	3.40E+01	1.00E+01	1.88E+01	2.09E+02	4.19E-04
XE-127M		2.80E-01	7.75E-01	1.99E+00	2.05E-01	3.53E+00	5.45E-06
XE-135		3.03E+00	2.94E+02	2.51E+00	2.17E+00	1.17E+04	1.64E-04
XE-135M		2.50E+01	7.24E-01	3.23E-04	1.10E+00	1.10E+00	2.13E-05
BF-128		0.00E+00	0.78E-04	0.00E+00	1.09E-05	1.07E-04	1.80E-09
TOTAL EC RATIO							2.11E-02

CATAWBA UNIT 2 GAS DOSE 001-091 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES NNE

02/24/93

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 1.11E-01 MILLIRADS
GAMMA AIR DOSE = 2.05E-01 MILLIRADS

TOTAL BODY DOSE = 1.36E-01 MILLIREM
XE133 5.27%
AR 41 89.63%

TOTAL SKIN DOSE = 2.31E-01 MILLIREM
XE133 8.71%
AR 41 84.55%

CATAKBA UNIT 2 GAS DOSE 001-091 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES ENE

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 77.51%

MAXIMUM ORGAN DOSE = 1.14E-01 MILLIREM
H 3 84.13%
I 131 14.89%

CATAMBA UNIT 2 GAS DOSE 092-182 92 RELEASE WEIGHTED NET REPORT SUMMARY 02/24/93
SPECIAL LOCATION
AT 0.50 MILES S

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 9.64E-02 MILLIRADS
GAMMA AIR DOSE = 1.24E-01 MILLIRADS

TOTAL BODY DOSE = 8.10E-02 MILLIREM
XE133 12.53%
XE135 5.49%
AR 41 79.62%

TOTAL SKIN DOSE = 1.48E-01 MILLIREM
XE133 19.36%
XE135 7.90%
AR 41 70.09%

CATAWBA UNIT 2 GAS DOSE 092-182 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES S

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 78.18%

MAXIMUM ORGAN DOSE = 8.20E-02 MILLIREM
H 3 99.77%

CATAMBA UNIT 2 GAS DOSE 183-274 92 RELEASE WEIGHTED NET REPORT SUMMARY 02/24/93
SPECIAL LOCATION
AT 0.50 MILES NE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 6.20E-01 MILLIRADS
GAMMA AIR DOSE = 1.23E+00 MILLIRADS

TOTAL BODY DOSE = 8.14E-01 MILLIREM
XE133 4.66%
AR 41 94.55%

TOTAL SKIN DOSE = 1.36E+00 MILLIREM
XE133 7.88%
AR 41 90.63%

CATAMBA UNIT 2 GAS DOSE 183-274 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES ENE

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 77.76%

MAXIMUM ORGAN DOSE = 1.18E-01 MILLIREM
H 3 97.11%

CATAMBA UNIT 2 GAS DOSE 275-366 92 RELEASE WEIGHTED NET REPORT SUMMARY 02/24/93
SPECIAL LOCATION
AT 0.50 MILES NE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 6.07E-01 MILLIRADS
GAMMA AIR DOSE = 1.62E+00 MILLIRADS

TOTAL BODY DOSE = 1.08E+00 MILLIREM
AR 41 99.36%

TOTAL SKIN DOSE = 1.74E+00 MILLIREM
AR 41 97.59%

CATAWBA UNIT 2 GAS DOSE 275-366 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES S

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - GI-TRACK
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 77.95%

MAXIMUM ORGAN DOSE = 8.86E-02 MILLIREM
H 3 99.56%

CATAMBA UNIT 2 GAS DOSE 001-366 92 RELEASE WEIGHTED NET REPORT SUMMARY 02/24/93
SPECIAL LOCATION
AT 0.50 MILES NE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $1.41\text{E}+00$ MILLIRADS
GAMMA AIR DOSE = $3.14\text{E}+00$ MILLIRADS

TOTAL BODY DOSE = $2.08\text{E}+00$ MILLIREM
AR 41 95.70%

TOTAL SKIN DOSE = $3.43\text{E}+00$ MILLIREM
AR 41 92.97%

CATANBA UNIT 2 GAS DOSE 001-366 92 RELEASE WEIGHTED NET REPORT SUMMARY
SPECIAL LOCATION
AT 0.50 MILES ENE

02/24/93

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - CHILD
CRITICAL PATHWAY - VEGET @ 77.89%

MAXIMUM ORGAN DOSE = 3.40E-01 MILLIREM

H 3 93.81%
I 131 5.62%

SUPPLEMENTAL INFORMATION

CATAWBA NUCLEAR STATION
EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION

REPORT DATE: 02/24/93

PERIOD COVERED: START DAY = 183 STOP DAY = 366

I. REGULATORY LIMITS

A. NOBLE GASES - AIR DOSE

1. CALENDAR QUARTER - GAMMA DOSE = 5 MRAD
2. CALENDAR QUARTER - BETA DOSE = 10 MRAD
3. CALENDAR YEAR - GAMMA DOSE = 10 MRAD
4. CALENDAR YEAR - BETA DOSE = 20 MRAD

B. LIQUID EFFLUENTS - DOSE

1. CALENDAR QUARTER - TOTAL BODY DOSE = 1.5 MREM
2. CALENDAR QUARTER - ORGAN DOSE = 5 MREM
3. CALENDAR YEAR - TOTAL BODY DOSE = 3 MREM
4. CALENDAR YEAR - ORGAN DOSE = 10 MREM

C. IODINE - 131 AND 133, TRITIUM, PARTICULATES W/T 1/2 > 8 DAYS - ORGAN DOSE

1. CALENDAR QUARTER = 7.5 MREM
2. CALENDAR YEAR = 15 MREM

II. MAXIMUM PERMISSIBLE EFFLUENT CONCENTRATIONS

A. GASEOUS EFFLUENTS - INFORMATION FOUND IN OFFSITE DOSE CALCULATION MANUAL

B. LIQUID EFFLUENTS - INFORMATION FOUND IN 10CFR10, APPENDIX B, TABLE 2, COLUMN 2

III. AVERAGE ENERGY - NOT APPLICABLE

IV. MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

INFORMATION FOUND IN OFFSITE DOSE CALCULATION MANUAL

V. BATCH RELEASES

A. LIQUID EFFLUENT

1. $2.06E+02$ = TOTAL NUMBER OF BATCH RELEASES
2. $5.87E+04$ = TOTAL TIME(MIN.) FOR BATCH RELEASES
3. $5.09E+03$ = MAXIMUM TIME(MIN.) FOR A BATCH RELEASE
4. $2.85E+02$ = AVERAGE TIME(MIN.) FOR A BATCH RELEASE
5. $2.00E+00$ = MINIMUM TIME(MIN.) FOR A BATCH RELEASE
6. $1.00E+04$ = AVERAGE DILUTION WATER FLOW DURING RELEASES(GPM)

B. GASEOUS EFFLUENT

1. $1.10E+02$ = TOTAL NUMBER OF BATCH RELEASES
2. $4.84E+05$ = TOTAL TIME(MIN.) FOR BATCH RELEASES
3. $2.11E+04$ = MAXIMUM TIME(MIN.) FOR A BATCH RELEASE
4. $4.40E+03$ = AVERAGE TIME(MIN.) FOR A BATCH RELEASE
5. $6.00E+00$ = MINIMUM TIME(MIN.) FOR A BATCH RELEASE

VI. ABNORMAL RELEASES

A. LIQUID

1. NUMBER OF RELEASES 0
2. TOTAL ACTIVITY RELEASED(CURIES) 0

B. GASEOUS

1. NUMBER OF RELEASES 0
2. TOTAL ACTIVITY RELEASED(CURIES) 0

SUPPLEMENTAL REPORT PAGE 2

CATAWBA NUCLEAR STATION

Values represented by "0.00E+00" within the body of the semi-annual report are below the minimum detectable limits of the Catawba counting systems. Typical MDA's for the Catawba counting systems are listed below:

<u>ISOTOPE</u>	<u>ENERGY (Kev)</u>	<u>AVERAGE MDA</u>
Xe-133	80	3.50E-08
Ce-144	133	3.00E-07
Kr-88	196	3.60E-08
Xe-135	249	1.15E-08
Kr-87	402	3.15E-08
Cs-137	661	2.50E-08
Mo-99	778	1.45E-07
Mn-54	834	2.65E-08
Zn-65	1115	6.85E-08
Co-60	1332	2.95E-08

SUPPLEMENTAL REPORT PAGE 3

CATAWBA NUCLEAR STATION

The estimated percentage of error for both Liquid and Gaseous effluent release data at Catawba Nuclear Station has been determined to be $\pm 23\%$. This number was derived by summing the following individual estimates of errors:

- (1) Flow rate determining devices = $\pm 5\%$
- (2) Counting error = $\pm 15\%$
- (3) Sample preparation error = $\pm 3\%$

FUEL CYCLE CALCULATION

1992 CATANBA FUEL CYCLE SUMMARY

DAYS 001-366

02/24/93 AT 17:53

MAXIMUM TOTAL BODY	NE 0.50 MILES	4.86E+00	AGE : ADULT
CNS.GAS		4.16E+00	85.6 %
	AR 41		95.7 %
CNS.LIQUID		6.67E-01	13.7 %
CRITICAL PATH	FISH		95.3 %
	H 3		5.6 %
	CS 134		40.3 %
	CS 137		48.8 %
MNS.GAS		1.50E-03	0.0 %
	KR 88		9.8 %
	XE133		21.5 %
	XE135		18.5 %
	AR 41		48.0 %
MNS.LIQUID		3.06E-02	0.6 %
CRITICAL PATH	DRINKING		63.1 %
	H 5		63.3 %
	CS 134		12.7 %
	CS 137		20.5 %

1992 CATAMBA FUEL CYCLE SUMMARY DAYS 001-366 02/24/93 AT 17:53

MAXIMUM ORGAN	ENE 0.50 MILES	1.92E+00	AGE : ADULT	ORGAN : GI-TRACK
	CNS.GAS	4.39E-01	22.8 %	
	CRITICAL PATH	GARDEN	64.0 %	
		H 3	99.4 %	
	CNS.LIQUID	1.40E+00	72.6 %	
	CRITICAL PATH	FISH	97.3 %	
		CO 58	5.0 %	
		NB 95	80.6 %	
	MNS.GAS	1.45E-03	0.0 %	
	CRITICAL PATH	GARDEN	40.9 %	
		H 3	96.9 %	
	MNS.LIQUID	8.45E-02	4.3 %	
	CRITICAL PATH	FISH	73.7 %	
		H 3	22.9 %	
		NB 95	68.9 %	

1992 CATANBA FUEL CYCLE SUMMARY DAYS 001-366 02/24/93 AT 17:53

MAXIMUM TOTAL BODY NE 0.50 MILES 4.86E+00 AGE : ADULT

MAXIMUM ORGAN ENE 0.50 MILES 1.92E+00 AGE : ADULT ORGAN : GI-TRACK

METEOROLOGICAL SURVEY

CATAMBA METEOROLOGICAL SURVEY TOWER DATA											
FOR PERIOD OF 01-01-92 THRU 12-31-92											
SUMMARY OF PASQUILL A											
WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)											
DATE OF REPORT 02-24-93											
		WIND SPEED CLASS									
WIND	SECTOR	1.0-3.2	3.3-5.5	5.6-7.8	7.9-10.0	10.1-12.3	12.4-14.5	14.6-16.7	16.8-19.0	19.1-21.2	>21.2 MPH
	TOTAL	.45-1.49	1.5-2.49	2.5-3.49	3.5-4.49	4.5-5.49	5.5-6.49	6.5-7.49	7.5-8.49	8.5-9.49	>9.5 M/S
360.0	000.08	00.02	00.00	00.05	00.01	00.00	00.00	00.00	00.00	00.00	00.00
-N-											
22.5	000.14	00.00	00.01	00.07	00.05	00.01	00.01	00.01	00.00	00.00	00.00
-NNE-											
45.0	000.58	00.00	00.02	00.07	00.02	00.14	00.07	00.06	00.00	00.00	00.00
-NE-											
67.5	000.02	00.00	00.00	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-ENE-											
90.0	000.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-E-											
112.5	000.04	00.01	00.02	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-ESE-											
135.0	000.32	00.06	00.10	00.14	00.01	00.01	00.00	00.00	00.00	00.00	00.00
-SE-											
157.5	000.74	00.36	00.28	00.33	00.06	00.01	00.00	00.00	00.00	00.00	00.00
-SSE-											
180.0	000.70	00.09	00.23	00.22	00.07	00.08	00.01	00.00	00.00	00.00	00.00
-S-											
202.5	000.61	00.02	00.18	00.18	00.15	00.08	00.00	00.00	00.00	00.00	00.00
-SSW-											
225.0	001.05	00.02	00.17	00.40	00.36	00.09	00.00	00.01	00.00	00.00	00.00
-SW-											
247.5	000.67	00.06	00.19	00.24	00.11	00.07	00.00	00.00	00.00	00.00	00.00
-WSW-											
270.0	000.22	00.00	00.13	00.07	00.01	00.01	00.00	00.00	00.00	00.00	00.00
-W-											
292.5	000.23	00.00	00.08	00.05	00.03	00.01	00.05	00.03	00.00	00.00	00.00
-WNW-											
315.0	000.16	00.01	00.07	00.03	00.01	00.00	00.01	00.02	00.01	00.00	00.00
-NW-											
337.5	000.03	00.02	00.00	00.00	00.00	00.01	00.00	00.00	00.00	00.00	00.00
-NNW-											
CALM	00.01										
TOTAL	005.42	000.38	001.48	001.88	000.89	000.52	000.13	000.13	000.01	000.00	000.00

CATAMBA METEOROLOGICAL SURVEY TOWER DATA		FOR PERIOD OF 01-01-92 THRU 12-31-92									
SUMMARY OF PASQUILL E		MIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)									
		DATE OF REPORT 02-24-93									
		MIND SPEED CLASS									
WIND SECTOR	SECTOR TOTAL	1.0-3.2 .45-1.49	3.3-5.5 1.5-2.49	5.6-7.8 2.5-3.49	7.9-10.0 3.5-4.49	10.1-12.3 4.5-5.49	12.4-14.5 5.5-6.49	14.6-16.7 6.5-7.49	16.8-19.0 7.5-8.49	19.1-21.2 8.5-9.49	>21.2 MPH >9.5 M/S
360.0	000.25	00.00	00.05	00.02	00.07	00.07	00.03	00.01	00.00	00.00	00.00
-N-											
22.5	000.32	00.02	00.00	00.08	00.10	00.05	00.05	00.02	00.00	00.00	00.00
-NNE-											
45.0	000.39	00.01	00.01	00.03	00.15	00.10	00.09	00.00	00.00	00.00	00.00
-NE-											
67.5	000.01	00.00	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-ENE-											
90.0	000.05	00.03	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-E-											
112.5	000.05	00.02	00.02	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-ESE-											
135.0	000.16	00.03	00.03	00.10	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-SE-											
157.5	000.54	00.13	00.31	00.07	00.03	00.00	00.00	00.00	00.00	00.00	00.00
-SSE-											
180.0	000.44	00.06	00.24	00.10	00.01	00.03	00.00	00.00	00.00	00.00	00.00
-S-											
202.5	000.72	00.05	00.25	00.32	00.07	00.01	00.02	00.00	00.00	00.00	00.00
-SSW-											
225.0	001.30	00.02	00.40	00.58	00.24	00.05	00.00	00.01	00.00	00.00	00.00
-SW-											
247.5	000.64	00.01	00.23	00.27	00.09	00.03	00.01	00.00	00.00	00.00	00.00
-WSW-											
270.0	000.32	00.02	00.20	00.05	00.03	00.01	00.01	00.00	00.00	00.00	00.00
-W-											
292.5	000.34	00.06	00.06	00.10	00.08	00.00	00.02	00.00	00.02	00.00	00.00
-WNN-											
315.0	000.32	00.01	00.05	00.05	00.09	00.02	00.06	00.01	00.03	00.00	00.00
-NN-											
337.5	000.27	00.01	00.01	00.02	00.09	00.02	00.05	00.07	00.00	00.00	00.00
-NNW-											
CALM	00.01										
TOTAL	006.12	000.48	001.88	001.81	001.05	000.39	000.34	000.12	000.05	000.00	000.00

CATANBA METEOROLOGICAL SURVEY TOWER DATA									
FOR PERIOD OF 01-01-92 THRU 12-31-92									
WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)									
DATE OF REPORT 02-24-93									
MIND SPEED CLASS									
WIND SECTOR	1.0-3.2	3.3-5.5	5.6-7.8	7.9-10.0	10.1-12.3	12.4-14.5	14.6-16.7	16.8-19.0	19.1-21.2
SECTOR TOTAL	4.5-1.49	1.5-2.49	2.5-3.49	3.5-4.49	4.5-5.49	5.5-6.49	6.5-7.49	7.5-8.49	8.5-9.49
360.0	00.25	00.83	01.08	00.72	00.24	00.05	00.03	00.00	00.00
-N-									
22.5	00.11	00.51	01.63	02.11	01.06	00.28	00.07	00.01	00.00
-NNE-									
45.0	00.09	00.61	02.74	02.39	01.23	00.23	00.01	00.00	00.00
-NE-									
67.5	00.10	00.24	00.30	00.33	00.26	00.06	00.01	00.00	00.00
-ENE-									
90.0	00.19	00.16	00.08	00.02	00.00	00.00	00.00	00.00	00.00
-E-									
112.5	00.23	00.11	00.05	00.01	00.00	00.00	00.00	00.00	00.00
-ESE-									
135.0	00.30	00.23	00.22	00.05	00.00	00.00	00.00	00.00	00.00
-SE-									
157.5	00.49	00.42	00.24	00.07	00.00	00.00	00.00	00.00	00.00
-SSE-									
180.0	00.33	00.72	00.25	00.06	00.00	00.01	00.00	00.00	00.00
-S-									
202.5	00.36	00.91	00.55	00.20	00.07	00.00	00.00	00.00	00.00
-SSW-									
225.0	00.25	01.71	00.92	00.41	00.13	00.07	00.00	00.00	00.00
-WSW-									
247.5	00.44	01.15	00.39	00.07	00.03	00.03	00.00	00.00	00.00
-W-									
270.0	00.42	00.44	00.20	00.10	00.03	00.02	00.00	00.00	00.00
-NNW-									
292.5	00.25	00.35	00.19	00.23	00.07	00.05	00.03	00.01	00.00
-NN-									
315.0	00.30	00.33	00.24	00.19	00.08	00.09	00.02	00.00	00.00
-NNN-									
337.5	00.25	00.47	00.35	00.30	00.30	00.10	00.10	00.00	00.00
-NNN-									
CALM	00.30								
TOTAL	004.36	009.19	009.43	007.26	003.59	000.99	000.27	000.03	000.02

CATAMBA METEOROLOGICAL SURVEY TOWER DATA									
SUMMARY OF PASQUILL E									
FOR PERIOD OF 01-01-92 THRU 12-31-92									
WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)									
DATE OF REPORT 02-24-93									
WIND SPEED CLASS									
SECTOR	1.0-3.2	3.3-5.5	5.6-7.8	7.9-10.0	10.1-12.3	12.4-14.5	14.6-16.7	16.8-19.0	19.1-21.2
TOTAL	0.45-1.49	1.5-2.49	2.5-3.49	3.5-4.49	4.5-5.49	5.5-6.49	6.5-7.49	7.5-8.49	8.5-9.49
360.0	003.07	00.38	01.23	00.88	00.36	00.20	00.01	00.00	00.00
-N-									
22.5	002.86	00.18	00.63	01.22	00.66	00.17	00.00	00.00	00.00
-NE-									
45.0	002.09	00.16	00.36	00.76	00.60	00.19	00.02	00.00	00.00
-NE-									
67.5	001.02	00.19	00.15	00.22	00.17	00.18	00.06	00.00	00.00
-ENE-									
90.0	000.31	00.13	00.09	00.07	00.02	00.00	00.00	00.00	00.00
-E-									
112.5	000.69	00.30	00.27	00.07	00.05	00.00	00.00	00.00	00.00
-ESE-									
135.0	001.67	00.36	00.69	00.44	00.16	00.02	00.00	00.00	00.00
-SE-									
157.5	001.69	00.56	00.63	00.35	00.13	00.02	00.00	00.00	00.00
-SSE-									
180.0	002.51	00.64	01.25	00.25	00.16	00.13	00.07	00.01	00.00
-S-									
202.5	003.59	00.82	01.86	00.61	00.16	00.08	00.03	00.01	00.00
-SSW-									
225.0	003.98	01.16	01.41	01.02	00.27	00.09	00.02	00.01	00.00
-SW-									
247.5	001.85	00.82	00.77	00.16	00.06	00.02	00.02	00.00	00.00
-WSW-									
270.0	001.40	00.72	00.52	00.16	00.00	00.00	00.00	00.00	00.00
-W-									
292.5	000.95	00.33	00.24	00.15	00.15	00.05	00.02	00.01	00.00
-WNW-									
315.0	001.15	00.27	00.35	00.27	00.17	00.07	00.02	00.00	00.00
-NW-									
337.5	002.05	00.42	00.83	00.54	00.17	00.09	00.00	00.00	00.00
-NNW-									
CALM	00.42								
TOTAL	030.88	007.44	011.30	007.17	003.29	001.31	000.27	000.10	000.00

CATAMBA METEOROLOGICAL SURVEY TOWER DATA										
FOR PERIOD OF 01-01-92 THRU 12-31-92										
SUMMARY OF PASQUILL F										
WIND SECTOR	SECTOR TOTAL	WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)								
		DATE OF REPORT								
		02-20-93								
		WIND SPEED CLASS								
		10.1-12.3 12.4-14.5 14.6-16.7 16.8-19.0 19.1-21.2 >21.2 MPH 4.5-5.49 5.5-6.49 6.5-7.49 7.5-8.49 8.5-9.49 >9.5 M/S								
360.0	1.0-3.2 .45-1.0	3.3-5.5 1.5-2.49	5.6-7.8 2.5-3.49	7.9-10.0 3.5-4.49	10.1-12.3 4.5-5.49	12.4-14.5 5.5-6.49	14.6-16.7 6.5-7.49	16.8-19.0 7.5-8.49	19.1-21.2 8.5-9.49	>21.2 >9.5 M/S
-N-	001.00	00.54	00.10	00.01	00.00	00.01	00.00	00.00	00.00	00.00
22.5	001.31	00.10	00.55	00.50	00.05	00.01	00.00	00.00	00.00	00.00
-NNE-										
45.0	000.51	00.14	00.10	00.17	00.05	00.05	00.00	00.00	00.00	00.00
-NE-										
67.5	000.20	00.08	00.01	00.02	00.06	00.02	00.01	00.00	00.00	00.00
-ENE-										
90.0	000.13	00.05	00.07	00.01	00.00	00.00	00.00	00.00	00.00	00.00
-E-										
112.5	000.23	00.06	00.02	00.07	00.07	00.01	00.00	00.00	00.00	00.00
-ESE-										
135.0	000.58	00.14	00.20	00.10	00.14	00.00	00.00	00.00	00.00	00.00
-SE-										
157.5	000.75	00.31	00.42	00.01	00.01	00.00	00.00	00.00	00.00	00.00
-SSE-										
180.0	000.82	00.34	00.46	00.01	00.00	00.00	00.01	00.00	00.00	00.00
-S-										
202.5	001.17	00.46	00.67	00.02	00.02	00.00	00.00	00.00	00.00	00.00
-SSW-										
225.0	001.01	00.51	00.43	00.06	00.01	00.00	00.00	00.00	00.00	00.00
-SW-										
247.5	000.62	00.43	00.18	00.00	00.00	00.01	00.00	00.00	00.00	00.00
-WSW-										
270.0	000.56	00.25	00.31	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-W-										
292.5	000.64	00.17	00.38	00.07	00.00	00.00	00.00	00.00	00.00	00.00
-WNW-										
315.0	000.66	00.16	00.28	00.20	00.01	00.01	00.00	00.00	00.00	00.00
-NW-										
337.5	000.51	00.14	00.27	00.08	00.02	00.00	00.00	00.00	00.00	00.00
-NNW-										
CALM	00.28									
TOTAL	010.70	003.79	004.89	001.42	000.45	000.11	000.04	000.00	000.00	000.00

CATAMBA METEOROLOGICAL SURVEY TOWER DATA									
SUMMARY OF PASQUILL G									
FOR PERIOD OF 01-01-92 THRU 12-31-92									
WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)									
DATE OF REPORT 02-24-93									
MIND SPEED CLASS									
SECTOR	1.0-3.2	3.3-5.5	5.6-7.8	7.9-10.0	10.1-12.3	12.4-14.5	14.6-16.7	16.8-19.0	19.1-21.2
TOTAL	1.0-3.2	3.3-5.5	5.6-7.8	7.9-10.0	10.1-12.3	12.4-14.5	14.6-16.7	16.8-19.0	19.1-21.2
SECTOR	1.0-3.2	3.3-5.5	5.6-7.8	7.9-10.0	10.1-12.3	12.4-14.5	14.6-16.7	16.8-19.0	19.1-21.2
360.0	00.47	00.61	00.03	00.00	00.01	00.00	00.00	00.00	00.00
N-	00.12	00.47	00.03	00.00	00.01	00.00	00.00	00.00	00.00
NNE-	00.08	00.34	00.19	00.01	00.00	00.00	00.00	00.00	00.00
45.0	00.38	00.16	00.07	00.02	00.00	00.00	00.00	00.00	00.00
NNE-	00.18	00.07	00.02	00.01	00.00	00.00	00.00	00.00	00.00
67.5	00.11	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
ENE-	00.09	00.08	00.00	00.00	00.01	00.00	00.00	00.00	00.00
90.0	00.38	00.25	00.13	00.09	00.00	00.00	00.00	00.00	00.00
E-	00.60	00.34	00.25	00.00	00.01	00.00	00.00	00.00	00.00
112.5	00.79	00.40	00.39	00.00	00.00	00.00	00.00	00.00	00.00
ESE-	00.38	01.00	00.38	00.00	00.00	00.00	00.00	00.00	00.00
135.0	00.33	01.01	00.32	00.00	00.00	00.00	00.00	00.00	00.00
SE-	00.80	00.63	00.17	00.00	00.00	00.00	00.00	00.00	00.00
157.5	00.65	00.33	00.31	00.01	00.00	00.00	00.00	00.00	00.00
SSE-	00.46	00.23	00.22	00.01	00.00	00.00	00.00	00.00	00.00
180.0	00.50	00.30	00.19	00.01	00.00	00.00	00.00	00.00	00.00
S-	00.53	00.30	00.23	00.00	00.00	00.00	00.00	00.00	00.00
202.5	CALM	00.41							
SSW-	010.12	005.93	003.78	000.34	000.04	000.03	000.00	000.00	000.00
225.0									
SW-									
247.5									
WSW-									
270.0									
W-									
292.5									
WNW-									
315.0									
NNW-									
337.5									
NNW-									
TOTAL									

ATTACHMENT II

The Solid Waste Report

CATAWBA NUCLEAR STATION - SOLID RADIOACTIVE WASTE SHIPPED TO A DISPOSAL FACILITY

REPORT PERIOD 7/1/92 THROUGH 12/31/92

Type of Waste Shipped	Number of Shipments	Number of Containers	Waste Class	Container Type	Burial Volume (ft ³)	Volume (m ³)	Total Activity (Curies)
1. Waste from Liquid Systems							
(A) Dewatered Secondary Resins	2	7	7AU	7STC	1451.8	41.11	1.373E-2
(B) Dewatered Primary Resins	3	3	1AS,2B	HIC	446.4	12.64	176.7
(C) Evaporator Concentrates	0	0	N/A	N/A	0	0	0
(D) Dewatered Mechanical Filters	4	4	B	HIC	146.0	4.13	118.4
(E) Dewatered Demineralizers	0	0	N/A	N/A	0	0	0
(F) Solidified (Cement) Acids, Oils, Sludges	0	0	N/A	N/A	0	0	0
2. Dry Solid Waste							
(A) Dry Active Waste (compacted)	0	0	N/A	N/A	0	0	0
(B) Dry Active Waste (non-compacted)	1	1	AS	HIC	120.3	3.41	3.926
(C) Dry Active Waste (brokered)	---	---	---	---	707.7	20.04	3.712
(D) Irradiated Components	0	0	N/A	N/A	0	0	0
Total	10 ^a	15 ^a	---	---	2872.2	81.34	302.7517

^a Does not include brokered totals

CATAWBA NUCLEAR STATION - SOLID RADIOACTIVE WASTE

SUMMARY OF PRINCIPAL RADIONUCLIDE COMPOSITION

REPORT PERIOD 7/1/92 THROUGH 12/31/92

<u>Type of Waste</u>	<u>Radionuclide</u>	<u>% Abundance</u> *
1. Waste from Liquid Systems		
(A) Dewatered Secondary Resins	Sb-125	1.0
	Cs-134	42.9
	Cs-137	54.4
(B) Dewatered Primary Resins	Mn-54	4.5
	Co-58	3.2
	Co-60	12.0
	Sb-125	2.2
	Cs-134	3.7
	Cs-137	6.1
	Fe-55	58.2
	Ni-63	9.1
(C) Evaporator Concentrates	(none shipped this period)	
(D) Dewatered Mechanical Filters	Mn-54	4.0
	Co-58	16.8
	Co-60	11.3
	Fe-55	56.6
	Ni-63	10.0
(E) Dewatered Demineralizers	(none shipped this period)	
(F) Solidified Acids, Oils, Sludges	(none shipped this period)	

* Average percent abundance for all shipments during period (not listed if <1%)

CATAWBA NUCLEAR STATION - SOLID RADIOACTIVE WASTE

SUMMARY OF PRINCIPAL RADIONUCLIDE COMPOSITION

REPORT PERIOD 7/1/92 THROUGH 12/31/92

<u>Type of Waste</u>	<u>Radionuclide</u>	<u>% Abundance</u> *
2. Dry Solid Waste		
(A) Dry Active Waste (compacted)	(none shipped this period)	
(B) Dry Active Waste (non-compacted)	Mn-54	3.0
	Co-58	8.6
	Co-60	14.0
	Cs-134	1.4
	Cs-137	1.9
	C-14	1.5
	Fe-55	62.7
	Ni-63	6.3
(C) Dry Active Waste (brokered)	H-3	1.4
	Mn-54	3.0
	Co-58	9.6
	Co-60	13.7
	Cs-134	1.4
	Cs-137	1.9
	C-14	1.5
	Fe-55	61.0
	Ni-63	6.1
(D) Irradiated Components	(none shipped this period)	

* Average percent abundance for all shipments during period (not listed if <1%)