

MCGUIRE NUCLEAR STATION
EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION
REPORT DATE: 02/12/88
PERIOD COVERED: START DAY = 001 STOP DAY = 365

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 CONCENTRATIONS

- A. GASEOUS EFFLUENTS - INFORMATION FOUND IN OFFSITE DOSE CALCULATION MANUAL
B. LIQUID EFFLUENTS - INFORMATION FOUND IN 10CFR20, APPENDIX B, TABLE II, 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. 1.08×10^3 = TOTAL NUMBER OF BATCH RELEASES
2. 3.50×10^5 = TOTAL TIME(MIN.) FOR BATCH RELEASES
3. 1.01×10^4 = MAXIMUM TIME(MIN.) FOR A BATCH RELEASE
4. 3.25×10^2 = AVERAGE TIME(MIN.) FOR A BATCH RELEASE
5. 1.00×10^0 = MINIMUM TIME(MIN.) FOR A BATCH RELEASE
6. 5.10×10^8 = AVERAGE DILUTION WATER FLOW DURING RELEASES(GPM)

B. GASEOUS EFFLUENT

1. 6.37×10^2 = TOTAL NUMBER OF BATCH RELEASES
2. 1.02×10^6 = TOTAL TIME(MIN.) FOR BATCH RELEASES
3. 1.29×10^4 = MAXIMUM TIME(MIN.) FOR A BATCH RELEASE
4. 1.60×10^3 = AVERAGE TIME(MIN.) FOR A BATCH RELEASE
5. 1.00×10^0 = MINIMUM TIME(MIN.) FOR A BATCH RELEASE

VI. ABNORMAL RELEASES

A. LIQUID

1. NUMBER OF RELEASES 1
2. TOTAL ACTIVITY RELEASED(CURIES) .77

B. GASEOUS

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

SUPPLEMENTAL REPORT
McGUIRE NUCLEAR STATION

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

ISOTOPE	ENERGY	AVERAGE MDA
<u>Liquid</u>		
XE-133	80	4.9E-8
CE-144	133	1.0E-7
KR-88	196	1.4E-7
XE-135	249	2.4E-8
KR-87	402	2.6E-7
CS-137	661	2.5E-8
MO-99	778	4.1E-7
MN-54	834	1.8E-8
ZN-65	1115	5.5E-8
CO-60	1332	4.6E-8
<u>GAS</u>		
XE-133	80	2.6E-8
Kr-85m	151	1.2E-8
Xe-131M	163	3.8E-7
Kr-88	196	4.0E-8
Xe-133m	233	8.3E-8
Xe-135	250	1.3E-8
Xe-138	258	4.4E-6
Kr-87	402	6.2E-8
Kr-85	514	3.1E-6
Xe-135M	526	1.8E-6
Ar-41	1293	3.7E-8

McGUIRE NUCLEAR STATION

The estimated percentage of error for both Liquid and Gaseous effluent release data at McGUIRE Nuclear Station has been determined to be +31%. This number was derived by summing the following individual estimates of errors:

- 1) Flow rate determining devices = +13%
- 2) Counting error = +15%
- 3) Sample preparation error = + 3%

MCQUIRE NUCLEAR STATION
UNIT 1
RADIOACTIVE EFFLUENT RELEASES
DATE: 02/11/88

1. LIQUID RELEASES

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	YEAR TOTAL
1. GROSS RADIOACTIVITY						
A. TOTAL RELEASE	CURIES	7.36E-02	1.98E-01	5.56E-01	7.41E-01	1.57E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	9.96E-11	3.03E-10	4.19E-10	5.10E-10	5.10E-10
C. MAXIMUM CONCENTRATION RELEASED	UCI/ML	2.33E-09	4.55E-09	1.14E-08	2.26E-08	2.26E-08
2. TRITIUM						
A. TOTAL RELEASE	CURIES	1.11E+02	1.22E+02	1.31E+02	1.27E+02	4.92E+02
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	1.51E-07	1.87E-07	1.46E-07	1.61E-07	1.60E-07
3. DISSOLVED NOBLE GASES						
A. TOTAL RELEASE	CURIES	1.70E-01	9.79E-02	8.11E-01	9.13E-01	1.99E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.30E-10	1.50E-10	9.03E-10	1.16E-09	6.47E-10
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	5.26E+06	1.07E+07	1.54E+07	6.17E+06	3.75E+07
6. VOLUME OF DILUTION WATER	LITERS	7.39E+11	6.52E+11	8.98E+11	7.88E+11	3.08E+12
7. RADIONUCLIDES RELEASED	CURIES					
NA-24		3.10E-03	1.08E-04	1.48E-03	1.78E-04	4.86E-03
K-40		2.68E-04	1.03E-04	2.16E-04	1.02E-04	6.88E-04
CR-51		5.58E-05	1.30E-02	5.53E-02	7.01E-02	1.38E-01
MN-54		2.65E-03	4.22E-03	8.07E-03	2.32E-02	3.82E-02
MN-56		0.00E+00	0.00E+00	0.00E+00	5.29E-06	5.29E-06
FE-55		1.68E-02	1.45E-02	7.77E-02	5.43E-02	1.63E-01
FE-59		2.14E-05	5.31E-04	6.53E-03	8.25E-03	1.53E-02
CO-57		4.89E-05	1.41E-04	4.15E-04	4.49E-03	5.10E-03
CO-58		4.73E-03	8.02E-02	2.47E-01	3.74E-01	7.16E-01
CO-60		2.18E-02	3.94E-02	4.37E-02	7.62E-02	1.72E-01
NI-63		0.00E+00	0.00E+00	2.21E-06	0.00E+00	2.21E-06
ZN-65		8.95E-05	7.88E-05	1.66E-04	8.41E-04	1.17E-03
ZN-69M		0.00E+00	9.06E-07	4.20E-06	0.00E+00	5.11E-06
BR-82		5.18E-05	1.07E-04	3.70E-05	1.17E-04	1.97E-04
BR-84		1.32E-05	1.22E-05	0.00E+00	0.00E+00	2.53E-05
BR-86		0.00E+00	0.00E+00	2.59E-05	2.96E-05	5.55E-05
BR-90		4.99E-05	1.17E-03	7.90E-03	2.42E-04	9.38E-03
BR-91		5.42E-06	0.00E+00	0.00E+00	0.00E+00	5.42E-06
SR-90		1.02E-05	0.00E+00	2.89E-04	8.00E+00	3.07E-04
SR-92		0.00E+00	0.00E+00	1.26E-05	0.00E+00	1.26E-05
SR-94		3.75E-04	3.43E-04	2.20E-04	9.51E-04	1.90E-03
Y-91M		1.59E-06	0.00E+00	1.48E-06	6.93E-07	3.69E-06
Y-93		0.00E+00	4.77E-06	7.94E-05	6.97E-05	1.54E-04
ZR-95		1.08E-04	7.22E-04	4.13E-03	1.07E-02	1.57E-02
NB-95		5.20E-04	1.78E-03	7.06E-03	1.80E-02	2.73E-02
NB-97		1.75E-03	1.45E-03	1.31E-03	5.39E-03	9.91E-03
MO-99		0.00E+00	5.01E-05	9.42E-05	0.00E+00	1.44E-04
TC-99M		3.01E-04	2.94E-04	7.89E-03	3.07E-04	8.78E-03
RU-103		0.00E+00	1.16E-06	8.19E-04	2.19E-03	3.01E-03
RU-106		4.79E-04	1.27E-05	2.43E-06	6.05E-04	1.18E-03
AG-109M		3.41E-07	0.00E+00	8.13E-06	2.89E-05	3.73E-05
AG-110M		1.15E-03	1.44E-03	7.75E-04	3.26E-03	6.62E-03
IN-115M		0.00E+00	0.00E+00	0.00E+00	6.85E-06	6.85E-06
I-131		7.57E-03	7.12E-03	3.17E-02	1.16E-02	5.80E-02
I-132		3.02E-05	3.78E-04	1.72E-03	1.61E-04	2.95E-03
I-133		3.67E-03	2.85E-03	1.84E-02	8.33E-04	1.77E-02
I-134		0.00E+00	1.25E-04	5.53E-04	2.50E-04	9.26E-04
I-135		2.32E-04	9.94E-04	2.07E-03	1.20E-06	4.10E-03
SB-122		8.33E-06	1.77E-04	4.20E-04	9.97E-07	6.06E-04
SB-124		4.95E-05	4.63E-03	3.53E-03	8.38E-03	1.66E-02
SB-125		3.21E-03	1.51E-02	1.27E-02	5.64E-02	8.74E-02
SN-113		5.14E-05	8.66E-05	3.94E-04	2.95E-03	3.48E-03
TE-131M		0.00E+00	2.45E-06	0.00E+00	0.00E+00	2.45E-06
TE-132		0.00E+00	0.00E+00	7.48E-05	0.00E+00	7.48E-05
CS-134		1.62E-03	2.65E-03	5.59E-03	5.26E-04	1.04E-02
CS-136		8.11E-06	0.00E+00	5.29E-04	0.00E+00	5.37E-04
CS-137		2.18E-03	3.71E-03	5.75E-03	9.19E-04	1.26E-02
CS-139		1.26E-06	9.18E-05	3.39E-04	3.58E-05	4.67E-04
BA-139		9.23E-06	1.16E-05	0.00E+00	2.29E-05	4.38E-05
BA-140		7.05E-05	0.00E+00	1.07E-04	0.00E+00	1.86E-04
LA-140		2.80E-04	8.75E-04	5.33E-03	2.74E-04	6.76E-03
CE-141		0.00E+00	0.00E+00	1.30E-05	9.31E-04	9.44E-04
CE-144		1.63E-04	4.48E-05	4.45E-04	2.09E-03	2.75E-03
W-167		3.37E-05	5.58E-05	0.00E+00	0.00E+00	8.95E-05
BI-214		0.00E+00	1.47E-06	0.00E+00	0.00E+00	1.47E-06
PB-214		1.32E-05	1.73E-06	2.45E-03	1.52E-04	2.62E-03
MD-239		0.00E+00	0.00E+00	5.56E-05	0.00E+00	5.56E-05
AR-41		8.44E-06	3.38E-05	6.49E-05	7.01E-05	1.87E-04
KR-85		2.54E-04	6.26E-05	8.22E-03	0.00E+00	8.54E-03
KR-85M		2.89E-05	1.20E-05	6.64E-04	2.47E-04	9.52E-04
KR-87		0.00E+00	4.17E-06	5.95E-05	5.88E-06	6.96E-05
KR-88		0.00E+00	6.91E-05	9.87E-04	1.87E-05	1.08E-03
XE-133M		7.91E-05	1.01E-04	1.78E-03	6.63E-04	2.62E-03
XE-133		1.39E-01	7.56E-02	6.57E-01	8.61E-01	1.73E+00
XE-133M		3.36E-03	1.71E-03	1.51E-02	1.62E-02	3.64E-02
XE-135		2.64E-02	1.92E-02	1.22E-01	3.48E-02	2.02E-01
XE-135M		8.09E-04	1.14E-03	4.68E-03	4.10E-05	6.39E-03

SKIN	MAXIMUM DOSE-	6.93D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CO 58 5.22 % CS 88 83.77 %				
BONE	MAXIMUM DOSE-	7.65D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		CS 134 34.84 % CS 137 59.72 %				
LIVER	MAXIMUM DOSE-	1.33D-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		H 3 30.85 % CS 134 32.87 % CS 137 32.88 %				
T. BODY	MAXIMUM DOSE-	1.05D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 28.43 % CS 134 30.00 % CS 137 29.25 %				
THYROID	MAXIMUM DOSE-	1.16D-01 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		H 3 33.28 % I 137 66.16 %				
KIDNEY	MAXIMUM DOSE-	7.00D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 57.11 % CS 134 10.39 % CS 137 20.40 %				
LUNG	MAXIMUM DOSE-	5.20D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 76.88 % CS 134 8.38 % CS 137 8.93 %				
GI-LLI	MAXIMUM DOSE-	2.67D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 11.25 % NB 98 76.29 %				

SKIN	MAXIMUM DOSE-	8.35D-04 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CD 60 90.44 %				
BONE	MAXIMUM DOSE-	1.28D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		CS 134 33.30 %				
		CS 137 33.28 %				
LIVER	MAXIMUM DOSE-	2.46D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		M 3 37.92 %				
		CS 134 38.49 %				
		CS 137 31.77 %				
T. BODY	MAXIMUM DOSE-	1.92D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		M 3 36.36 %				
		CS 134 34.23 %				
		CS 137 27.26 %				
THYROID	MAXIMUM DOSE-	1.93D-02 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		M 3 36.70 %				
		I 131 52.51 %				
KIDNEY	MAXIMUM DOSE-	1.42D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		M 3 45.34 %				
		CS 134 48.34 %				
		CS 137 47.87 %				
LUNG	MAXIMUM DOSE-	1.12D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		M 3 83.85 %				
		CS 134 81.26 %				
		CS 137 81.21 %				
GI-LLI	MAXIMUM DOSE-	1.32D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	DRINKING
		M 3 53.83 %				
		CO 60 18.88 %				
		HB 95 29.62 %				

SKIN	MAXIMUM DOSE-	1.45D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CO 60 83.43 %				
BONE	MAXIMUM DOSE-	2.44D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		CS 134 32.69 %				
		CS 137 85.10 %				
LIVER	MAXIMUM DOSE-	4.07D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		H 3 28.68 %				
		CS 134 44.79 %				
		CS 137 37.53 %				
T. BODY	MAXIMUM DOSE-	3.21D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 27.26 %				
		CS 134 38.28 %				
		CS 137 32.21 %				
THYROID	MAXIMUM DOSE-	2.15D-02 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		H 3 52.80 %				
		I 137 46.77 %				
KIDNEY	MAXIMUM DOSE-	2.10D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 57.51 %				
		CS 134 11.50 %				
		CS 137 1.59 %				
LUNG	MAXIMUM DOSE-	1.53D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 76.49 %				
		CS 134 8.56 %				
		CS 137 11.75 %				
GI-LLI	MAXIMUM DOSE-	2.93D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 29.87 %				
		CO 58 4.00 %				
		CO 60 1.40 %				
		NB 95 50.88 %				

SKIN	MAXIMUM DOSE-	1.58D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CO 58 6.88 %				
		CS 137 5.66 %				
BONE	MAXIMUM DOSE-	3.20D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		CS 134 38.82 %				
		CS 137 38.32 %				
LIVER	MAXIMUM DOSE-	4.99D-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
		H 3 9.75 %				
		CS 137 47.68 %				
		CS 137 37.63 %				
T. BODY	MAXIMUM DOSE-	3.92D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 17.59 %				
		CS 134 49.02 %				
		CS 137 30.15 %				
THYROID	MAXIMUM DOSE-	4.89D-02 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		H 3 18.28 %				
		I 131 81.03 %				
KIDNEY	MAXIMUM DOSE-	2.18D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		H 3 42.19 %				
		CS 134 28.09 %				
		CS 137 26.00 %				
LUNG	MAXIMUM DOSE-	1.40D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 65.38 %				
		CS 134 16.21 %				
		CS 137 14.56 %				
GI-LLI	MAXIMUM DOSE-	6.26D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 11.01 %				
		CO 88 76.14 %				
		RB 95 75.12 %				

SKIN	MAXIMUM DOSE-	3.93D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CO 58 6.23 % CO 60 83.93 % SB 125 6.44 %				
BONE	MAXIMUM DOSE-	6.85D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
		CO 60 31.58 % CS 134 12.79 % CS 137 37.64 %				
LIVER	MAXIMUM DOSE-	1.82D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 56.32 % CS 134 17.94 % CS 137 17.34 %				
T. BODY	MAXIMUM DOSE-	1.43D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 71.89 % CO 58 8.30 % CO 60 9.61 %				
THYROID	MAXIMUM DOSE-	2.54D-02 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		H 3 39.22 % I 131 80.22 %				
KIDNEY	MAXIMUM DOSE-	1.38D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 79.20 % CS 134 5.21 % CS 137 7.96 %				
LUNG	MAXIMUM DOSE-	1.17D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 97.44 %				
GI-LLI	MAXIMUM DOSE-	1.56D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		NB 95 84.80 %				

MCQUIRE NUCLEAR STATION
UNIT 2
RADIOACTIVE EFFLUENT RELEASES
DATE: 02/11/88

1. LIQUID RELEASES

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	YEAR TOTAL
1. GROSS RADIOACTIVITY						
A. TOTAL RELEASE	CURIES	7.36E-02	1.98E-01	5.56E-01	7.41E-01	1.57E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	9.96E-11	3.03E-10	6.19E-10	9.41E-10	5.10E-10
C. MAXIMUM CONCENTRATION RELEASED	UCI/ML	2.33E-09	4.55E-09	1.14E-08	2.26E-08	2.26E-08
2. TRITIUM						
A. TOTAL RELEASE	CURIES	1.11E+02	1.22E+02	1.31E+02	1.27E+02	4.92E+02
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	1.11E-10	1.22E-09	1.31E-09	1.27E-09	1.26E-09
3. DISSOLVED NOBLE GASES						
A. TOTAL RELEASE	CURIES	1.70E-01	9.79E-02	8.11E-01	9.19E-01	1.99E+00
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.30E-10	1.50E-10	9.03E-10	1.16E-09	6.47E-10
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	5.26E+06	1.07E+07	1.54E+07	6.17E+06	3.75E+07
6. VOLUME OF DILUTION WATER	LITERS	7.09E+11	6.52E+11	8.99E+11	7.88E+11	3.08E+12
7. RADIONUCLIDES RELEASED	CURIES					
NA-24		3.10E-03	1.08E-04	1.48E-03	1.70E-04	4.06E-03
K-40		2.68E-04	1.03E-04	2.16E-04	1.02E-04	6.88E-04
CR-51		5.58E-05	1.90E-02	5.53E-02	7.01E-02	1.38E-01
MN-54		2.65E-03	4.22E-03	8.07E-03	2.32E-02	3.82E-02
MN-56		0.00E+00	0.00E+00	0.00E+00	5.29E-06	5.29E-06
FE-55		1.68E-02	1.45E-02	7.77E-02	5.43E-02	1.63E-01
FE-59		2.14E-05	5.31E-04	6.53E-03	8.25E-03	1.53E-02
CO-57		4.89E-05	1.41E-04	4.15E-04	4.49E-03	5.10E-03
CO-58		4.73E-03	8.82E-02	2.47E-01	3.76E-01	7.16E-01
CO-60		2.18E-02	3.06E-02	4.37E-02	7.62E-02	1.72E-01
NI-63		6.00E+00	0.00E+00	2.21E-06	0.00E+00	2.21E-06
ZN-65		8.05E-05	7.88E-05	1.66E-04	8.41E-04	1.17E-03
ZN-69M		0.00E+00	9.04E-07	4.20E-06	0.00E+00	5.11E-06
BR-82		5.18E-05	1.37E-04	3.78E-05	1.17E-06	1.97E-04
BR-84		1.32E-05	1.22E-05	0.00E+00	0.00E+00	2.53E-05
BR-86		0.00E+00	0.00E+00	2.59E-05	2.96E-05	5.55E-05
BR-88		4.99E-05	1.19E-09	7.90E-03	2.42E-04	9.38E-03
BR-89		5.42E-06	0.00E+00	0.00E+00	0.00E+00	5.42E-06
SR-89		1.82E-05	0.00E+00	2.89E-04	0.00E+00	3.07E-04
SR-90		0.00E+00	0.00E+00	1.24E-05	0.00E+00	1.24E-05
SR-92		3.75E-04	3.43E-04	2.78E-04	9.51E-04	1.98E-03
Y-91M		1.59E-06	0.00E+00	1.40E-06	6.93E-07	3.69E-06
Y-93		0.00E+00	4.77E-06	7.94E-05	6.97E-05	1.54E-04
ZR-95		1.00E-04	7.22E-04	4.19E-03	1.87E-02	1.57E-02
JB-95		5.29E-04	1.78E-03	7.06E-03	1.88E-02	2.79E-02
NR-97		1.75E-03	1.45E-03	1.31E-03	5.39E-03	9.91E-03
MO-99		0.00E+00	5.01E-05	9.42E-05	0.00E+00	1.44E-04
TC-99M		3.01E-04	2.84E-04	7.89E-03	3.07E-04	8.78E-03
RU-103		0.00E+00	1.16E-06	8.19E-04	8.19E-03	3.01E-03
RU-106		4.79E-04	1.27E-05	2.63E-06	6.85E-04	1.18E-03
AG-108M		3.41E-07	0.00E+00	8.13E-06	2.89E-05	3.73E-05
AG-110M		1.15E-03	1.40E-03	7.75E-04	3.26E-03	6.62E-03
IN-115M		0.00E+00	0.00E+00	0.00E+00	6.85E-04	6.85E-04
I-131		7.57E-03	7.12E-03	3.17E-02	1.16E-02	5.88E-02
I-132		3.02E-05	3.78E-04	1.72E-03	1.61E-04	2.29E-03
I-133		3.67E-03	2.85E-03	1.04E-02	8.33E-04	1.77E-02
I-134		0.00E+00	1.23E-04	5.53E-04	2.58E-04	9.26E-04
I-135		2.32E-04	9.94E-04	2.87E-03	1.29E-06	4.18E-03
SB-132		8.33E-06	1.77E-04	4.20E-04	9.97E-07	6.06E-04
SB-134		4.95E-05	4.69E-03	3.53E-03	8.38E-03	1.66E-02
SB-135		3.21E-03	1.51E-02	1.27E-02	5.64E-02	8.74E-02
SN-113		5.14E-05	8.66E-05	3.94E-04	2.95E-03	3.48E-03
TE-131M		0.00E+00	2.45E-06	0.00E+00	0.00E+00	2.45E-06
TE-132		0.00E+00	0.00E+00	7.48E-05	0.00E+00	7.48E-05
CS-134		1.62E-03	2.65E-03	5.59E-03	5.26E-04	1.04E-02
CS-136		8.11E-06	0.00E+00	5.29E-04	0.00E+00	5.37E-04
CS-137		2.18E-03	3.71E-03	5.75E-03	9.19E-04	1.26E-02
CS-138		1.26E-06	9.19E-05	3.39E-04	3.58E-05	4.67E-04
BA-139		9.23E-06	1.16E-05	0.00E+00	2.29E-05	4.38E-05
BA-140		7.85E-05	0.00E+00	1.87E-04	0.00E+00	1.86E-04
LA-140		2.80E-04	8.75E-04	5.33E-02	2.74E-04	6.76E-03
CE-141		0.00E+00	0.00E+00	1.38E-05	9.31E-04	9.44E-04
CE-144		1.68E-04	4.40E-05	4.45E-04	2.09E-03	2.75E-03
W-187		3.37E-05	5.58E-05	0.00E+00	0.00E+00	8.95E-05
BI-214		0.00E+00	1.47E-06	0.00E+00	0.00E+00	1.47E-06
PB-214		1.32E-05	1.29E-06	2.45E-03	1.52E-04	2.62E-03
WP-239		0.00E+00	0.00E+00	5.56E-05	0.00E+00	5.56E-05
AR-41		8.48E-04	3.30E-05	6.49E-05	7.81E-05	1.87E-04
KO-85		2.54E-04	6.26E-05	8.28E-03	0.00E+00	8.54E-03
KO-85M		2.88E-05	1.20E-05	6.48E-04	2.47E-04	9.52E-04
KO-87		0.00E+00	4.17E-06	5.95E-05	5.88E-06	6.96E-05
KO-88		0.00E+00	6.91E-05	9.87E-04	1.87E-05	1.08E-03
XE-131M		7.91E-05	1.01E-04	1.78E-03	6.63E-04	2.62E-03
XE-133		1.39E-01	7.56E-02	6.57E-01	8.61E-01	1.73E+00
XE-133M		3.76E-03	1.71E-03	1.51E-02	1.62E-02	3.64E-02
XE-135		2.44E-02	1.90E-02	1.20E-01	3.48E-02	2.82E-01
XE-135M		8.99E-04	1.14E-03	4.68E-03	4.18E-05	6.59E-03

SKIN	MAXIMUM DOSE-	6.93D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CO 58 5.22 % CO 60 83.77 %				
BONE	MAXIMUM DOSE-	7.65D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		CS 134 34.84 % CS 137 59.72 %				
LIVER	MAXIMUM DOSE-	1.33D-01 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		H 3 30.05 % CS 134 32.87 % CS 137 32.88 %				
T. BODY	MAXIMUM DOSE-	1.05D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 28.43 % CS 134 28.00 % CS 137 28.25 %				
THYROID	MAXIMUM DOSE-	1.16D-01 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		H 3 33.28 % I 131 66.16 %				
KIDNEY	MAXIMUM DOSE-	7.00D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 57.11 % CS 134 16.38 % CS 137 20.40 %				
LUNG	MAXIMUM DOSE-	5.20D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 76.89 % CS 134 8.30 % CS 137 9.93 %				
GI-LLI	MAXIMUM DOSE-	2.67D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 11.25 % HB 99 76.26 %				

SKIN	MAXIMUM DOSE- 8.35D-04 MREM	CRITICAL AGE- TEEN	CRITICAL PATHWAY- SHORE
	CD 60 90.44 %		
BONE	MAXIMUM DOSE- 1.28D-02 MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- FISH
	CS 134 33.38 %		
	CS 137 33.38 %		
LIVER	MAXIMUM DOSE- 2.46D-02 MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- FISH
	H 3 37.82 %		
	CS 134 28.47 %		
	CS 137 31.77 %		
T. BODY	MAXIMUM DOSE- 1.92D-02 MREM	CRITICAL AGE- ADULT	CRITICAL PATHWAY- FISH
	H 3 36.36 %		
	CS 134 34.23 %		
	CS 137 27.56 %		
THYROID	MAXIMUM DOSE- 1.93D-02 MREM	CRITICAL AGE- INFANT	CRITICAL PATHWAY- DRINKING
	H 3 46.79 %		
	I 137 52.57 %		
KIDNEY	MAXIMUM DOSE- 1.42D-02 MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- DRINKING
	H 3 65.34 %		
	CS 134 19.87 %		
	CS 137 19.87 %		
LUNG	MAXIMUM DOSE- 1.12D-02 MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- DRINKING
	H 3 83.85 %		
	CS 134 8.27 %		
	CS 137 8.27 %		
GI-LLI	MAXIMUM DOSE- 1.32D-02 MREM	CRITICAL AGE- ADULT	CRITICAL PATHWAY- DRINKING
	H 3 57.87 %		
	CD 60 18.28 %		
	NR 29.82 %		

SKIN	MAXIMUM DOSE-	1.45D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CO 60 83.43 %				
BONE	MAXIMUM DOSE-	2.44D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		CS 134 32.60 %				
		CS 137 85.10 %				
LIVER	MAXIMUM DOSE-	4.07D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		H 3 28.68 %				
		CS 134 42.68 %				
		CS 137 37.33 %				
T. BODY	MAXIMUM DOSE-	3.21D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 27.26 %				
		CS 134 38.28 %				
		CS 137 32.21 %				
THYROID	MAXIMUM DOSE-	2.15D-02 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		H 3 52.80 %				
		I 131 45.71 %				
KIDNEY	MAXIMUM DOSE-	2.10D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 55.51 %				
		CS 134 18.20 %				
		CS 137 23.59 %				
LUNG	MAXIMUM DOSE-	1.53D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 76.49 %				
		CS 134 8.26 %				
		CS 137 11.75 %				
GI-LLI	MAXIMUM DOSE-	2.93D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 29.87 %				
		CO 20 6.07 %				
		CO 60 7.40 %				
		HB 95 50.88 %				

SKIN	MAXIMUM DOSE-	1.58D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CO 58 6.98 % CS 137 5.08 %				
BONE	MAXIMUM DOSE-	3.20D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		CS 134 38.82 % CS 137 36.92 %				
LIVER	MAXIMUM DOSE-	4.99D-02 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
		H 3 9.75 % CS 134 47.68 % CS 137 37.63 %				
T. BODY	MAXIMUM DOSE-	3.92D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 17.50 % CS 134 49.02 % CS 137 30.15 %				
THYROID	MAXIMUM DOSE-	4.89D-02 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		H 3 18.20 % I 137 81.83 %				
KIDNEY	MAXIMUM DOSE-	2.18D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
		H 3 42.18 % CS 134 27.08 % CS 137 26.60 %				
LUNG	MAXIMUM DOSE-	1.40D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 65.38 % CS 134 18.87 % CS 137 14.56 %				
GI-LLI	MAXIMUM DOSE-	6.26D-02 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		H 3 11.01 % CO 95 6.14 % NE 95 75.12 %				

SKIN	MAXIMUM DOSE-	3.03D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
		CO 59 6.23 % CO 60 83.93 % SB 125 6.44 %				
BONE	MAXIMUM DOSE-	6.85D-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	FISH
		CO 60 31.50 % CS 134 16.58 % CS 137 37.64 %				
LIVER	MAXIMUM DOSE-	1.82D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 56.32 % CS 134 11.84 % CS 137 17.34 %				
T. BODY	MAXIMUM DOSE-	1.43D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 71.80 % CO 59 8.30 % CO 60 8.61 %				
THYROID	MAXIMUM DOSE-	2.54D-02 MREM	CRITICAL AGE-	INFANT	CRITICAL PATHWAY-	DRINKING
		H 3 39.22 % I 131 60.66 %				
KIDNEY	MAXIMUM DOSE-	1.30D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 79.20 % CS 134 6.51 % CS 137 7.96 %				
LUNG	MAXIMUM DOSE-	1.17D-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
		H 3 87.44 %				
GI-LLI	MAXIMUM DOSE-	1.56D-01 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	FISH
		NB 95 84.80 %				

MCGUIRE NUCLEAR STATION
UNIT 1
RADIOACTIVE EFFLUENT RELEASES
DATE : 02/11/88

1987

II. AIRBORNE RELEASES

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL
1. TOTAL NOBLE GASES	CURIES	3.04E+02	5.13E+02	7.40E+02	4.79E+02	2.04E+03
2. TOTAL HALOGENS	CURIES	5.26E-03	6.32E-03	6.80E-03	4.87E-04	1.89E-02
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	2.20E-03	3.89E-02	7.51E-04	1.06E-04	4.19E-02
4. TOTAL TRITIUM	CURIES	5.22E+00	6.29E+00	5.68E+00	7.83E+00	2.50E+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	1.60E+03	1.60E+03	1.60E+03	1.60E+03	1.60E+03

7. RADIONUCLIDES RELEASED

CURIES

PARTICULATES

NA-24	6.68E-04	4.78E-04	5.02E-05	0.00E+00	1.20E-03
CL-38	2.46E-08	1.95E-08	2.31E-08	3.52E-08	1.02E-07
K-40	4.45E-04	1.39E-04	6.14E-05	1.33E-05	6.58E-04
CR-51	0.00E+00	0.00E+00	8.95E-06	0.00E+00	8.95E-06
MN-54	9.99E-07	3.91E-06	3.10E-10	0.00E+00	4.91E-06
MN-56	1.15E-09	0.00E+00	0.00E+00	0.00E+00	1.15E-09
CO-57	0.00E+00	0.00E+00	3.21E-07	0.00E+00	3.21E-07
CO-58	0.00E+00	4.85E-06	1.13E-04	2.42E-05	1.42E-04
CO-60	9.58E-06	5.26E-06	2.25E-05	1.21E-05	4.95E-05
BR-82	2.39E-09	4.90E-10	8.39E-09	5.82E-09	1.71E-08
BR-88	1.03E-03	1.19E-03	3.16E-04	4.38E-05	2.57E-03
SR-89	4.85E-07	2.22E-06	0.00E+00	0.00E+00	2.71E-06
SR-92	8.57E-09	1.28E-08	6.37E-09	3.76E-10	2.81E-08
Y-91M	1.79E-10	0.00E+00	0.00E+00	1.47E-09	1.65E-09
Y-93	0.00E+00	2.52E-12	0.00E+00	0.00E+00	2.52E-12
ZR-95	0.00E+00	0.00E+00	3.94E-10	0.00E+00	3.94E-10
ZR-97	0.00E+00	0.00E+00	7.56E-10	0.00E+00	7.56E-10
NB-95	0.00E+00	0.00E+00	5.90E-10	7.72E-11	6.67E-10
TC-99M	1.34E-05	4.61E-05	2.29E-06	0.00E+00	6.18E-05
RU-106	1.53E-10	0.00E+00	9.18E-07	0.00E+00	9.18E-07
SB-122	0.00E+00	0.00E+00	6.19E-10	0.00E+00	6.19E-10
SN-113	0.00E+00	0.00E+00	8.19E-11	8.32E-07	8.33E-07
CS-134	0.00E+00	2.81E-05	4.09E-05	1.30E-06	7.02E-05
CS-136	0.00E+00	6.26E-06	4.15E-06	0.00E+00	1.04E-05
CS-137	1.87E-05	6.68E-05	5.88E-05	3.73E-06	1.48E-04
CS-138	2.64E-06	8.98E-08	9.57E-08	7.93E-08	2.90E-06
BA-139	3.16E-10	0.00E+00	0.00E+00	1.88E-09	2.20E-09
BA-140	0.00E+00	0.00E+00	0.00E+00	1.35E-10	1.35E-10
CE-141	0.00E+00	0.00E+00	9.95E-07	0.00E+00	9.95E-07
CE-143	4.31E-06	4.64E-08	2.43E-10	2.04E-10	4.36E-06
CE-144	7.10E-06	4.16E-06	2.28E-05	1.05E-09	3.40E-05
W-187	0.00E+00	0.00E+00	3.37E-05	0.00E+00	3.37E-05
BI-214	1.64E-07	5.77E-06	9.46E-06	3.84E-06	1.92E-05
PB-212	0.00E+00	1.92E-06	0.00E+00	0.00E+00	1.92E-06
PB-214	1.45E-07	3.69E-02	4.78E-06	3.12E-06	3.69E-02

HALOGENS

I-131	1.87E-03	2.27E-03	3.58E-03	4.15E-04	8.14E-03
I-132	0.00E+00	1.07E-03	3.28E-04	7.41E-07	1.40E-03
I-133	3.39E-03	2.63E-03	2.77E-03	7.09E-05	8.87E-03
I-134	0.00E+00	0.00E+00	1.65E-08	3.90E-09	2.04E-08
I-135	0.00E+00	3.47E-04	1.12E-04	1.42E-08	4.59E-04

GASES

AR-41	3.33E+00	2.19E+00	2.52E+00	1.36E+00	9.40E+00
KR-85	3.23E+00	5.55E+00	6.11E+00	7.52E+00	2.24E+01
KR-85M	9.87E-01	9.68E-01	7.86E-01	7.65E-01	3.50E+00
KR-87	1.35E-01	9.04E-02	7.69E-02	1.06E-01	4.08E-01
KR-88	9.05E-01	8.02E-01	5.89E-01	6.71E-01	2.97E+00
XE-131M	1.26E+00	2.33E+00	3.29E+00	2.32E+00	9.20E+00
XE-133	2.74E+02	4.74E+02	6.98E+02	4.47E+02	1.89E+03
XE-133M	4.14E+00	6.75E+00	9.45E+00	5.70E+00	2.60E+01
XE-135	1.60E+01	1.92E+01	1.87E+01	1.37E+01	6.76E+01
XE-135M	7.91E-04	1.47E+00	5.58E-02	2.32E-04	1.53E+00

MCQUEEN UNIT 1 GAS DOSE 001-02 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
 SPECIAL LOCATION
 AT 6.50 MILES SW

MOBILE GAS EXPOSURE:

BETA AIR DOSE = 2.00E-01 MILLIRADS
 GAMMA AIR DOSE = 1.31E-01 MILLIRADS

TOTAL BODY DOSE = 8.00E-02 MILLIREM
 KR 08 8.412
 XE 13 52.382
 XE 13 18.692
 AR 41 18.502

TOTAL SKIN DOSE = 2.00E-01 MILLIREM
 KR 08 4.622
 XE 13 58.592
 XE 13 19.692
 AR 41 11.792

RESERVE UNIT 1 GAS NOSE 001-090 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
RELEASE LOCATION
AT 1.50 MILES ESE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL RCE - 1.0E-01
CRITICAL PATHWAY - GOAT MILK @ 98.322

MAXIMUM ORGAN DOSE = 1.30E-01 MILLIREM
1.30E-01

MEASURE UNIT 1 GAS DOSE 091-181 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
 SPECIAL LOCATION
 AT 0.50 MILES NNE

NOBLE GAS EXPOSURE

BETA AIR DOSE = 1.62E+00 MILLIRADS
 GAMMA AIR DOSE = 6.10E-01 MILLIRADS

TOTAL BODY DOSE = 3.63E-01 MILLIREM
 XE133 70.72%
 XE135 19.072

TOTAL SKIN DOSE = 1.00E+00 MILLIREM
 XE133 81.77%
 XE135 9.892

MEQUITE UNIT 1 GAS DOSE 091-181 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES ESE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAM - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOATMILK @ 98.57%

MAXIMUM ORGAM DOSE = 1.83E-01 MILLIREM
I 131 97.85%

MCQUIRE UNIT 1 GAS DOSE 182-273 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 0.56 MILES NNE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $7.14\text{E-}01$ MILLIRADS
GAMMA AIR DOSE = $2.81\text{E-}01$ MILLIRADS

TOTAL BODY DOSE = $1.69\text{E-}01$ MILLIREM

XE133	74.38%
XE135	11.40%
AR 41	9.24%

TOTAL SKIN DOSE = $4.59\text{E-}01$ MILLIREM

XE133	77.12%
XE135	11.11%
AR 41	5.44%

MCCUTRE UNIT 1 GAS DOSE 182-273 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES ESE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOATMILK @ 97.89%
MAXIMUM ORGAN DOSE = 1.86E-01 MILLIREM
I 131 97.34%

MOBILE UNIT 1 GAS DOSE 274-365 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/89
 SPECIAL LOCATION
 AT 0.50 MILES NNE

MOBILE GAS EXPOSURE:

BETA AIR DOSE = $6.63E-01$ MILLIRADS
 GAMMA AIR DOSE = $2.57E-01$ MILLIRADS

TOTAL BODY DOSE = $1.55E-01$ MILLIREM
 KR 88 5.14%
 XE133 73.45%
 XE135 12.04%
 AR 41 6.66%

TOTAL SKIN DOSE = $4.29E-01$ MILLIREM
 KR 88 2.58%
 XE133 74.61%
 XE135 12.35%
 AR 41 3.84%

MCGUIRE UNIT 1 GAS DOSE 274-365 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES SSE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOATMILK @ 98.41%

MAXIMUM ORGAN DOSE = 4.42E-02 MILLIREM

H 3 5.50%
I 131 94.10%

MCQUIRE UNIT 1 GAS DOSE 001-365 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 0.50 MILES NNE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 3.25E+00 MILLIRADS
GAMMA AIR DOSE = 1.27E+00 MILLIRADS

TOTAL BODY DOSE = 7.64E-01 MILLIREM
XE133 74.53%
XE135 11.71%
AR 41 7.46%

TOTAL SKIN DOSE = 2.09E+00 MILLIREM
XE133 77.18%
XE135 11.33%
AR 41 4.38%

ACQUIRE UNIT 1 GAS DOSE 001-365 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES ESE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOATMILK @ 98.23%

MAXIMUM ORGAN DOSE = 5.26E-01 MILLIREM
131 87.1%

MCGUIRE NUCLEAR STATION
UNIT 2
RADIOACTIVE EFFLUENT RELEASES
DATE : 02/11/88

II. AIRBORNE RELEASES

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL	YEAR : 1987
1. TOTAL NOBLE GASES	CURIES	3.04E+02	5.13E+02	7.40E+02	4.79E+02	2.04E+03	
2. TOTAL HALOGENS	CURIES	5.26E-03	6.32E-03	6.80E-03	4.87E-04	1.89E-02	
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	2.20E-03	3.89E-02	7.51E-04	1.06E-04	4.19E-02	
4. TOTAL TRITIUM	CURIES	5.22E+00	6.29E+00	5.68E+00	7.83E+00	2.50E+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	1.60E+03	1.60E+03	1.60E+03	1.60E+03	1.60E+03	

7. RADIONUCLIDES RELEASED

CURIES

PARTICULATES

NA-24	6.68E-04	4.78E-03	5.02E-05	0.00E+00	1.20E-03
CL-38	2.46E-08	1.95E-08	2.31E-08	3.52E-08	1.02E-07
K-40	4.45E-04	1.39E-04	6.14E-05	1.33E-05	6.58E-04
CR-51	0.00E+00	0.00E+00	8.95E-06	0.00E+00	8.95E-06
MN-54	9.99E-07	3.91E-06	3.10E-10	0.00E+00	4.91E-06
MN-56	1.15E-09	0.00E+00	0.00E+00	0.00E+00	1.15E-09
CO-57	0.00E+00	0.00E+00	3.21E-07	0.00E+00	3.21E-07
CO-58	0.00E+00	4.85E-06	1.13E-04	2.42E-05	1.42E-04
CO-60	9.58E-06	5.26E-06	2.25E-05	1.21E-05	4.95E-05
BR-82	2.39E-09	4.90E-10	8.39E-09	5.82E-09	1.71E-08
RB-88	1.03E-03	1.19E-03	3.16E-04	4.38E-05	2.57E-03
SR-89	4.85E-07	2.22E-06	0.00E+00	0.00E+00	2.71E-06
SR-92	8.57E-09	1.28E-08	6.37E-09	3.76E-10	2.81E-08
Y-91M	1.79E-10	0.00E+00	0.00E+00	1.47E-05	1.65E-09
Y-93	0.00E+00	2.52E-12	0.00E+00	0.00E+00	2.52E-12
ZR-95	0.00E+00	0.00E+00	3.94E-10	0.00E+00	3.94E-10
ZR-97	0.00E+00	0.00E+00	7.56E-10	0.00E+00	7.56E-10
NB-95	0.00E+00	0.00E+00	5.90E-10	7.72E-11	6.67E-10
TC-99M	1.34E-05	4.61E-05	2.29E-06	0.00E+00	6.18E-05
RU-103	1.53E-10	0.00E+00	9.18E-07	0.00E+00	9.18E-07
SB-122	0.00E+00	0.00E+00	6.19E-10	0.00E+00	6.19E-10
SN-113	0.00E+00	0.00E+00	8.19E-11	8.32E-07	8.33E-07
CS-134	0.00E+00	2.81E-05	4.09E-05	1.30E-06	7.02E-05
CS-136	0.00E+00	6.26E-06	4.15E-06	0.00E+00	1.04E-05
CS-137	1.87E-05	6.68E-05	5.88E-05	3.73E-06	1.48E-04
CS-138	2.64E-06	8.98E-08	9.57E-08	7.93E-08	2.90E-06
BA-139	3.16E-10	0.00E+00	0.00E+00	1.88E-09	2.20E-09
BA-140	0.00E+00	0.00E+00	0.00E+00	1.35E-10	1.35E-10
CE-141	0.00E+00	0.00E+00	9.95E-07	0.00E+00	9.95E-07
CE-143	4.31E-06	4.64E-08	2.43E-10	2.04E-10	4.36E-06
CE-144	7.10E-06	4.16E-06	2.28E-05	1.05E-09	3.40E-05
W-187	0.00E+00	0.00E+00	3.37E-05	0.00E+00	3.37E-05
BI-214	1.64E-07	5.77E-06	9.46E-06	3.84E-06	1.92E-05
PB-212	0.00E+00	1.92E-06	0.00E+00	0.00E+00	1.92E-06
PB-214	1.45E-07	3.69E-02	4.78E-06	3.12E-06	3.69E-02

HALOGENS

I-131	1.87E-03	2.27E-03	3.58E-03	4.15E-04	8.14E-03
I-132	0.00E+00	1.07E-03	3.28E-04	7.41E-07	1.40E-03
I-133	3.39E-03	2.63E-03	2.77E-03	7.09E-05	8.87E-03
I-134	0.00E+00	0.00E+00	1.65E-08	3.90E-09	2.04E-08
I-135	0.00E+00	3.47E-04	1.12E-04	1.42E-08	4.59E-04

GASES

AR-41	3.33E+00	2.19E+00	2.52E+00	1.36E+00	9.40E+00
KR-85	3.23E+00	5.55E+00	6.11E+00	7.52E+00	2.24E+01
KR-85M	9.87E-01	9.68E-01	7.86E-01	7.65E-01	3.50E+00
KR-87	1.35E-01	9.04E-02	7.69E-02	1.04E-01	4.08E-01
KR-89	9.05E-01	8.02E-01	5.89E-01	6.71E-01	2.97E+00
XE-131M	1.26E+00	2.33E+00	3.29E+00	2.32E+00	9.20E+00
XE-133	2.74E+02	4.74E+02	6.98E+02	4.47E+02	1.89E+03
XE-133M	4.14E+00	6.75E+00	9.45E+00	5.70E+00	2.60E+01
XE-135	1.60E+01	1.92E+01	1.87E+01	1.37E+01	6.76E+01
XE-135M	7.91E-04	1.47E+00	5.58E-02	2.32E-04	1.53E+00

RECUISE UNIT 2 GAS DOSE 001-090 87 RELEASE WEIGHTED NET REPORT SUMMARY 92/11/88
SPECIAL LOCATION
AT 0.50 MILES SW

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 2.68E-01 MILLIRADS
GAMMA AIR DOSE = 1.31E-01 MILLIRADS

TOTAL BODY DOSE = 8.08E-02 MILLIREM
TOTAL 88
KR 88
XE 135
XE 135
AR 41

TOTAL SKIN DOSE = 2.03E-01 MILLIREM
TOTAL 88
KR 88
XE 135
XE 135
AR 41

ACQUIRE UNIT 2 GAS DOSE 001-090 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES ESE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOATMILK @ 98.32%

MAXIMUM ORGAN DOSE = $1.30E-01$ MILLIREM
I 131 96.59%

ACQUIRE UNIT 2 GAS DOSE 091-181 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
 SPECIAL LOCATION
 AT 0.59 MILES UNE

MOBILE GAS EXPOSURE:

BETA AIR DOSE = 1.62E+00 MILLIRADS
 GAMMA AIR DOSE = 6.10E-01 MILLIRADS

TOTAL BODY DOSE = 3.63E-01 MILLIREM
 XE133 79.48%
 XE135 10.07%

TOTAL SKIN DOSE = 1.00E+00 MILLIREM
 XE133 81.47%
 XE135 9.69%

WECURE UNIT 2 GAS DOSE 091-181 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES ESE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY-

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOATMILK @ 98.57%
MAXIMUM ORGAN DOSE = 1.83E-01 MILLIREM
1.131 97.85%

MCGUIRE UNIT 2 GAS DOSE 182-273 87 RELEASE WEIGHTED MET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 0.50 MILES NNE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $7.14\text{E-}01$ MILLIRADS
GAMMA AIR DOSE = $2.81\text{E-}01$ MILLIRADS

TOTAL BODY DOSE = $1.69\text{E-}01$ MILLIREM
XE133 74.38%
XE135 11.40%
AR 41 9.24%

TOTAL SKIN DOSE = $4.59\text{E-}01$ MILLIREM
XE133 77.12%
XE135 11.11%
AR 41 5.44%

MCGUIRE UNIT 2 GAS DOSE 192-273 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES ESE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOAT MILK @ 97.89%
MAXIMUM ORGAN DOSE = 1.86E-01 MILLIREM
I 131 97.34%

MCQUIRE UNIT 2 GAS DOSE 274-365 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/98
SPECIAL LOCATION
AT 0.50 MILES NNE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $6.63E-01$ MILLIRADS
GAMMA AIR DOSE = $2.57E-01$ MILLIRADS

TOTAL BODY DOSE = $1.55E-01$ MILLIREM

KR 88	5.14%
XE 133	73.45%
XE 135	12.94%
AR 41	8.66%

TOTAL SKIN DOSE = $4.29E-01$ MILLIREM

KR 88	2.56%
XE 133	74.61%
XE 135	12.35%
AR 41	3.84%

MCQUIRE UNIT 2 GAS DOSE 274-365 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES SSE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOATMILK @ 98.41%

MAXIMUM ORGAN DOSE = $4.42E-02$ MILLIREM

I 131 94.19%

MCGUIRE UNIT 2 GAS DOSE 001-365 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 0.50 MILES NNE

NOBLE GAS EXPOSURE:

BETA AIR DOSE = $3.25\text{E}+00$ MILLIRADS
GAMMA AIR DOSE = $1.27\text{E}+00$ MILLIRADS

TOTAL BODY DOSE = $7.64\text{E}-01$ MILLIREM
XE133 74.63%
XE135 11.71%
AR 41 7.46%

TOTAL SKIN DOSE = $2.09\text{E}+00$ MILLIREM
XE133 77.18%
XE135 11.33%
AR 41 4.38%

REQUIRE UNIT 2 GAS DOSE 001-365 87 RELEASE WEIGHTED NET REPORT SUMMARY 02/11/88
SPECIAL LOCATION
AT 1.50 MILES ESE

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY

MAXIMUM ORGAN - THYROID
CRITICAL AGE - INFANT
CRITICAL PATHWAY - GOAT MILK @ 98.23%

MAXIMUM ORGAN DOSE = 5.26E-01 MILLIREM
1.31 97.11%

ATTACHMENT 1B

SOLID RADIOACTIVE WASTES

McGuire NUCLEAR STATION
SOLID RADIOACTIVE WASTE SHIPPED TO A DISPOSAL FACILITY
REPORT PERIOD 7/1/87 THROUGH 12/31/87

	TYPES OF WASTE SHIPPED	NUMBER OF SHIPMENTS	NUMBER OF CONTAINERS	WASTE CLASS	CONT. TYPE	BURIAL VOLUME		TOTAL ACT. Ci	EST. TOTAL ERROR %
						(ft ³)	(m ³)		
1	WASTE FROM LIQUID SYSTEMS								
	(A) Dewatered Powdex Resins	2	6	6A	STC	1236A	35.0A	1.19E-2A	10
	(B) Dewatered Bead Resins	0	0	N/A	N/A	0	0	0	N/A
	(C) Evaporator Concentrates	0	0	N/A	N/A	0	0	0	N/A
	(D) Dewatered Mechanical Filters	4	25	24A 1B	STC	395A 38B	11.18A 1.08B	13.5A 9.6B	15
	(E) Dewatered Demineralizers	3	8	7A 1B	STC	210A 38B	5.95A 1.08B	11.5A 7.9B	10
	(F) Solidified (Cement) Oils Acids, Sludges	0	0	N/A	STC	0	0	0	N/A
2	DRY SOLID WASTE								
	(A) Dry Active Waste (compacted)	8	90	90A	STC	8280A	234.47A	3.05A	15
	(B) Dry Active Waste (non-compacted)	13	69	68A 1C	STC	4598A 38C	130.2A 1.08C	1.29A 22.0C	15
	(C) Irradiated Components	0	0	N/A	N/A	0	0	0	N/A
TOTALS		30	198	195A 2B 1C		14719A 76B 38C	416.8A 2.16B 1.08C	29.98A 17.5B 22.0C	---

SUMMARY OF MAJOR RADIONUCLIDE COMPOSITION

<u>Types of Wastes</u>	<u>Radionuclide</u>	<u>% Abundance</u>
1. <u>Wastes from Liquid Systems</u>		
(a) Dewatered Powdex Resins	Mn-54	0.2
	Cs-134	27.3
	Cs-137	32.0
	Fe-55	15.2
	ETRU	11.0
	I-131	6.9
	Kr-85	7.5
	Sb-122	0.3
(b) Dewatered Bead Resins	(None Shipped This Period)	
(c) Evaporator Concentrates	(None Shipped This Period)	
(d) Dewatered Mechanical Filters	Zn-65	0.3
	Ag-110m	1.4
	Mn-54	4.2
	Co-58	1.0
	Co-60	36.6
	Sr-92	0.4
	Ce-144	0.3
	Nb-97	1.3
	Pu-241	0.0
	Fe-55	49.1
	Ni-63	5.3
(e) Dewatered Demineralizers	H-3	0.6
	Co-58	9.1
	Co-60	23.1
	Co-57	0.1
	Mn-54	4.4
	Cs-134	18.7
	Cs-137	25.7
	Ce-144	0.1
	Fe-55	6.9
	Ni-63	10.3
	I-131	0.1
	C-14	0.1
(f) Solidified (Cement) Acids, Oils, Sludges	(None Shipped This Period)	
2. <u>Dry Solid Waste</u>		
(a) Dry Active Waste (compacted & noncompacted)	Cr-51	5.3
	Mn-54	6.0
	Co-58	24.3
	Co-60	30.4
	Nb-95	5.4
	Pu-241	0.4
	Fe-55	22.2
	Ni-63	3.2
	Zr-95	2.98
(b) Irradiated Components	(None Shipped This Period)	

ATTACHMENT 1C
METEOROLOGICAL DATA

ACQUIRE METEOROLOGICAL SURVEY TOWER DATA										FOR PERIOD OF 01-01-87 THRU 12-31-87											
SUMMARY OF PASQUILL A										WIND OCCURANCES BY SECTOR + SPEED CLASS (PERCENT)											
										DATE OF REPORT 02-11-88											
WIND SECTOR		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		21.3 >9.5 M/S	
SECTOR TOTAL		001.26		001.51		001.54		001.11		001.05		001.01		001.00		001.02		001.00		001.00	
360.0																					
N																					
22.5																					
NNE																					
45.0																					
NE																					
67.5																					
ENE																					
90.0																					
E																					
112.5																					
ESE																					
135.0																					
SE																					
157.5																					
SSE																					
180.0																					
S																					
202.5																					
SSW																					
225.0																					
SW																					
247.5																					
WSW																					
270.0																					
W																					
292.5																					
WNW																					
315.0																					
NW																					
337.5																					
NNW																					
CALM		00.00																			
TOTAL		009.11		002.62		003.52		001.69		000.68		000.28		000.14		000.05		000.00		000.02	

ACQUIRE METEOROLOGICAL SURVEY TOWER DATA WIND OCCUR SUMMARY OF PASZVILL R

[illegible]

NOJUNE METEOROLOGICAL SURVEY TOWER DATA
SUMMARY OF PASQUILL C
WIND ORIGIN

FOR PERIOD OF 01-01-87 THRU 12-31-87

DATE OF REPORT 02-11-88

WIND SECTOR	SECTOR TOTAL	1.0-3.2 45-1.40	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	21.3-23.5 9.5-10.49	23.6-25.8 10.5-11.49	25.9-28.1 11.5-12.49	28.2-30.4 12.5-13.49	30.5-32.7 13.5-14.49	32.8-35.0 14.5-15.49	35.1-37.3 15.5-16.49	37.4-39.6 16.5-17.49	39.7-41.9 17.5-18.49	42.0-44.2 18.5-19.49	44.3-46.5 19.5-20.49	46.6-48.8 20.5-21.49	48.9-51.1 21.5-22.49	51.2-53.4 22.5-23.49	53.5-55.7 23.5-24.49	55.8-58.0 24.5-25.49	58.1-60.3 25.5-26.49	60.4-62.6 26.5-27.49	62.7-64.9 27.5-28.49	65.0-67.2 28.5-29.49	67.3-69.5 29.5-30.49	69.6-71.8 30.5-31.49	71.9-74.1 31.5-32.49	74.2-76.4 32.5-33.49	76.5-78.7 33.5-34.49	78.8-81.0 34.5-35.49	81.1-83.3 35.5-36.49	83.4-85.6 36.5-37.49	85.7-87.9 37.5-38.49	88.0-90.2 38.5-39.49	90.3-92.5 39.5-40.49	92.6-94.8 40.5-41.49	94.9-97.1 41.5-42.49	97.2-99.4 42.5-43.49	99.5-101.7 43.5-44.49	101.8-104.0 44.5-45.49	104.1-106.3 45.5-46.49	106.4-108.6 46.5-47.49	108.7-110.9 47.5-48.49	110.0-112.2 48.5-49.49	112.3-114.5 49.5-50.49	114.6-116.8 50.5-51.49	116.9-119.1 51.5-52.49	119.2-121.4 52.5-53.49	121.5-123.7 53.5-54.49	123.8-126.0 54.5-55.49	126.1-128.3 55.5-56.49	128.4-130.6 56.5-57.49	130.7-132.9 57.5-58.49	132.0-134.2 58.5-59.49	134.3-136.5 59.5-60.49	136.6-138.8 60.5-61.49	138.9-141.1 61.5-62.49	141.2-143.4 62.5-63.49	143.5-145.7 63.5-64.49	145.8-148.0 64.5-65.49	147.9-150.1 65.5-66.49	150.2-152.4 66.5-67.49	152.5-154.7 67.5-68.49	154.8-157.0 68.5-69.49	156.9-159.1 69.5-70.49	159.2-161.4 70.5-71.49	161.5-163.7 71.5-72.49	163.8-166.0 72.5-73.49	165.9-168.1 73.5-74.49	168.0-170.2 74.5-75.49	170.3-172.5 75.5-76.49	172.6-174.8 76.5-77.49	174.9-177.1 77.5-78.49	177.2-179.4 78.5-79.49	179.5-181.7 79.5-80.49	181.8-184.0 80.5-81.49	183.9-186.1 81.5-82.49	186.2-188.4 82.5-83.49	188.5-190.7 83.5-84.49	190.8-193.0 84.5-85.49	192.9-195.1 85.5-86.49	195.2-197.4 86.5-87.49	197.3-199.5 87.5-88.49	199.6-201.8 88.5-89.49	201.9-204.1 89.5-90.49	204.2-206.4 90.5-91.49	206.5-208.7 91.5-92.49	208.8-211.0 92.5-93.49	210.9-213.1 93.5-94.49	213.2-215.4 94.5-95.49	215.5-217.7 95.5-96.49	217.8-220.0 96.5-97.49	220.1-222.3 97.5-98.49	222.4-224.6 98.5-99.49	224.7-226.9 99.5-100.49	226.0-228.2 100.5-101.49	228.3-230.5 101.5-102.49	230.6-232.8 102.5-103.49	232.9-235.1 103.5-104.49	235.2-237.4 104.5-105.49	237.5-239.7 105.5-106.49	239.8-242.0 106.5-107.49	242.1-244.3 107.5-108.49	244.4-246.6 108.5-109.49	246.7-248.9 109.5-110.49	248.8-251.0 110.5-111.49	251.1-253.3 111.5-112.49	253.4-255.6 112.5-113.49	255.7-257.9 113.5-114.49	257.8-260.0 114.5-115.49	260.1-262.3 115.5-116.49	262.4-264.6 116.5-117.49	264.7-266.9 117.5-118.49	266.8-269.0 118.5-119.49	269.1-271.3 119.5-120.49	271.4-273.6 120.5-121.49	273.7-275.9 121.5-122.49	276.0-278.2 122.5-123.49	278.3-280.5 123.5-124.49	280.6-282.8 124.5-125.49	282.9-285.1 125.5-126.49	285.2-287.4 126.5-127.49	287.5-289.7 127.5-128.49	289.8-292.0 128.5-129.49	292.1-294.3 129.5-130.49	294.4-296.6 130.5-131.49	296.7-298.9 131.5-132.49	298.8-301.0 132.5-133.49	301.1-303.3 133.5-134.49	303.4-305.6 134.5-135.49	305.7-307.9 135.5-136.49	307.8-310.0 136.5-137.49	310.1-312.3 137.5-138.49	312.4-314.6 138.5-139.49	314.5-316.7 139.5-140.49	316.6-318.8 140.5-141.49	318.7-320.9 141.5-142.49	320.8-323.0 142.5-143.49	323.1-325.3 143.5-144.49	325.2-327.4 144.5-145.49	327.3-329.5 145.5-146.4
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MC GUIRE METEOROLOGICAL SURVEY TOWER DATA											
WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)											
FOR PERIOD OF 01-01-87 THRU 12-31-87											
DATE OF REPORT 02-11-88											
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	21.3 MPH 9.5 H/S
360.0	001.86	00.14	00.63	00.29	00.35	00.27	00.09	00.03	00.05	00.01	00.00
045.0	004.91	00.14	01.03	00.92	00.88	00.89	00.57	00.19	00.03	00.00	00.00
090.0	005.46	00.05	00.96	01.30	01.26	01.11	00.41	00.25	00.11	00.01	00.00
135.0	002.13	00.07	00.35	00.59	00.62	00.37	00.13	00.00	00.00	00.00	00.00
180.0	000.88	00.07	00.31	00.27	00.11	00.05	00.00	00.00	00.00	00.00	00.00
225.0	000.58	00.08	00.40	00.09	00.01	00.00	00.00	00.00	00.00	00.00	00.00
270.0	000.85	00.14	00.46	00.19	00.06	00.00	00.00	00.00	00.00	00.00	00.00
315.0	000.57	00.08	00.39	00.06	00.05	00.00	00.00	00.00	00.00	00.00	00.00
360.0	001.17	00.15	00.50	00.35	00.10	00.07	00.00	00.00	00.00	00.00	00.00
045.0	003.07	00.21	00.88	01.04	00.59	00.22	00.07	00.03	00.01	00.00	00.00
090.0	002.90	00.13	01.02	00.82	00.43	00.15	00.16	00.07	00.02	00.00	00.00
135.0	001.39	00.19	00.47	00.32	00.18	00.10	00.05	00.06	00.02	00.00	00.00
180.0	001.14	00.23	00.27	00.27	00.17	00.10	00.02	00.06	00.01	00.01	00.00
225.0	001.11	00.14	00.31	00.13	00.08	00.11	00.06	00.15	00.07	00.05	00.01
270.0	001.13	00.03	00.14	00.30	00.18	00.17	00.17	00.05	00.08	00.01	00.00
315.0	001.58	00.18	00.15	00.22	00.51	00.30	00.13	00.06	00.03	00.00	00.00
360.0	00.00										
TOTAL	030.53	002.03	008.26	007.23	005.65	003.91	001.86	000.95	000.45	000.18	000.01

ACQUIRE METEOROLOGICAL SURVEY TOWER DATA				FOR PERIOD OF 01-01-87 THRU 12-31-87																																																																																																																																																																																																																																																																																																																																																																																																																								
SUMMARY OF PASQUILL E				WIND OCCURANCES BY SECTOR + SPEED CLASS (PERCENT)																																																																																																																																																																																																																																																																																																																																																																																																																								
				DATE OF REPORT 02-11-88																																																																																																																																																																																																																																																																																																																																																																																																																								
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	21.3-23.5 9.5-10.49	23.6-25.8 10.5-11.49	25.9-28.1 11.5-12.49	28.2-30.4 12.5-13.49	30.5-32.7 13.5-14.49	32.8-35.0 14.5-15.49	35.1-37.3 15.5-16.49	37.4-39.6 16.5-17.49	39.7-41.9 17.5-18.49	42.0-44.2 18.5-19.49	44.3-46.5 19.5-20.49	46.6-48.8 20.5-21.49	48.9-51.1 21.5-22.49	51.2-53.4 22.5-23.49	53.5-55.7 23.5-24.49	55.8-58.0 24.5-25.49	58.1-60.3 25.5-26.49	60.4-62.6 26.5-27.49	62.7-64.9 27.5-28.49	65.0-67.2 28.5-29.49	67.3-69.5 29.5-30.49	69.6-71.8 30.5-31.49	71.9-74.1 31.5-32.49	74.2-76.4 32.5-33.49	76.5-78.7 33.5-34.49	78.8-81.0 34.5-35.49	81.1-83.3 35.5-36.49	83.4-85.6 36.5-37.49	85.7-87.9 37.5-38.49	88.0-90.2 38.5-39.49	90.3-92.5 39.5-40.49	92.6-94.8 40.5-41.49	94.9-97.1 41.5-42.49	97.2-99.4 42.5-43.49	99.5-101.7 43.5-44.49	101.8-104.0 44.5-45.49	104.1-106.3 45.5-46.49	106.4-108.6 46.5-47.49	108.7-110.9 47.5-48.49	110.0-112.2 48.5-49.49	112.3-114.5 49.5-50.49	114.6-116.8 50.5-51.49	116.9-119.1 51.5-52.49	119.2-121.4 52.5-53.49	121.5-123.7 53.5-54.49	123.8-126.0 54.5-55.49	126.1-128.3 55.5-56.49	128.4-130.6 56.5-57.49	130.7-132.9 57.5-58.49	133.0-135.2 58.5-59.49	135.3-137.5 59.5-60.49	137.6-139.8 60.5-61.49	139.9-142.1 61.5-62.49	142.2-144.4 62.5-63.49	144.5-146.7 63.5-64.49	146.8-149.0 64.5-65.49	149.1-151.3 65.5-66.49	151.4-153.6 66.5-67.49	153.7-155.9 67.5-68.49	156.0-158.2 68.5-69.49	158.3-160.5 69.5-70.49	160.6-162.8 70.5-71.49	162.9-165.1 71.5-72.49	165.2-167.4 72.5-73.49	167.5-169.7 73.5-74.49	169.8-172.0 74.5-75.49	172.1-174.3 75.5-76.49	174.4-176.6 76.5-77.49	176.7-178.9 77.5-78.49	179.0-181.2 78.5-79.49	181.3-183.5 79.5-80.49	183.6-185.8 80.5-81.49	185.9-188.1 81.5-82.49	188.2-190.4 82.5-83.49	190.5-192.7 83.5-84.49	192.8-195.0 84.5-85.49	195.1-197.3 85.5-86.49	197.4-199.6 86.5-87.49	199.7-201.9 87.5-88.49	201.0-203.2 88.5-89.49	203.3-205.5 89.5-90.49	205.6-207.8 90.5-91.49	207.9-210.1 91.5-92.49	210.2-212.4 92.5-93.49	212.5-214.7 93.5-94.49	214.8-217.0 94.5-95.49	217.1-219.3 95.5-96.49	219.4-221.6 96.5-97.49	221.7-223.9 97.5-98.49	224.0-226.2 98.5-99.49	226.3-228.5 99.5-100.49	228.6-230.8 100.5-101.49	230.9-233.1 101.5-102.49	233.2-235.4 102.5-103.49	235.5-237.7 103.5-104.49	237.8-240.0 104.5-105.49	240.1-242.3 105.5-106.49	242.4-244.6 106.5-107.49	244.7-246.9 107.5-108.49	247.0-249.2 108.5-109.49	249.3-251.5 109.5-110.49	251.6-253.8 110.5-111.49	253.9-256.1 111.5-112.49	256.2-258.4 112.5-113.49	258.5-260.7 113.5-114.49	260.8-263.0 114.5-115.49	263.1-265.3 115.5-116.49	265.4-267.6 116.5-117.49	267.7-269.9 117.5-118.49	270.0-272.2 118.5-119.49	272.3-274.5 119.5-120.49	274.6-276.8 120.5-121.49	276.9-279.1 121.5-122.49	279.2-281.4 122.5-123.49	281.5-283.7 123.5-124.49	283.8-286.0 124.5-125.49	286.1-288.3 125.5-126.49	288.4-290.6 126.5-127.49	290.7-292.9 127.5-128.49	293.0-295.2 128.5-129.49	295.3-297.5 129.5-130.49	297.6-299.8 130.5-131.49	300.0-302.2 131.5-132.49	302.3-304.5 132.5-133.49	304.6-306.8 133.5-134.49	306.9-309.1 134.5-135.49	309.2-311.4 135.5-136.49	311.5-313.7 136.5-137.49	313.8-316.0 137.5-138.49	316.1-318.3 138.5-139.49	318.4-320.6 139.5-140.49	320.7-322.9 140.5-141.49	323.0-325.2 141.5-142.49	325.3-327.5 142.5-143.49	327.6-329.8 143.5-144.49	329.9-332.1 144.5-145.49	332.2-334.4 145.5-146.49	334.5-336.7 146.5-147.49	336.8-339.0 147.5-148.49	339.1-341.3 148.5-149.49	341.4-343.6 149.5-150.49	343.7-345.9 150.5-151.49	346.0-348.2 151.5-152.49	348.3-350.5 152.5-153.49	350.6-352.8 153.5-154.49	352.9-355.1 154.5-155.49	355.2-357.4 155.5-156.49	357.5-359.7 156.5-157.49	359.8-362.0 157.5-158.49	362.1-364.3 158.5-159.49	364.4-366.6 159.5-160.49	366.7-368.9 160.5-161.49	368.0-370.2 161.5-162.49	370.3-372.5 162.5-163.49	372.6-374.8 163.5-164.49	374.9-377.1 164.5-165.49	377.2-379.4 165.5-166.49	379.5-381.7 166.5-167.49	381.8-384.0 167.5-168.49	384.1-386.3 168.5-169.49	386.4-388.6 169.5-170.49	388.5-390.7 170.5-171.49	390.8-393.0 171.5-172.49	393.1-395.3 172.5-173.49	395.4-397.6 173.5-174.49	397.7-399.9 174.5-175.49	400.0-402.2 175.5-176.49	402.3-404.5 176.5-177.49	404.6-406.8 177.5-178.49	406.9-409.1 178.5-179.49	409.2-411.4 179.5-180.49	411.5-413.7 180.5-181.49	413.8-416.0 181.5-182.49	416.1-418.3 182.5-183.49	418.4-420.6 183.5-184.49	420.7-422.9 184.5-185.49	422.0-424.2 185.5-186.49	424.3-426.5 186.5-187.49	426.6-428.8 187.5-188.49	428.9-431.1 188.5-189.49	431.2-433.4 189.5-190.49	433.5-435.7 190.5-191.49	435.8-438.0 191.5-192.49	438.1-440.3 192.5-193.49	440.4-442.6 193.5-194.49	442.7-444.9 194.5-195.49	444.0-446.2 195.5-196.49	446.3-448.5 196.5-197.49	448.6-450.8 197.5-198.49	450.9-453.1 198.5-199.49	453.2-455.4 199.5-200.49	455.5-457.7 200.5-201.49	457.8-460.0 201.5-202.49	460.1-462.3 202.5-203.49	462.4-464.6 203.5-204.49	464.7-466.9 204.5-205.49	466.0-468.2 205.5-206.49	468.3-470.5 206.5-207.49	470.6-472.8 207.5-208.49	472.9-475.1 208.5-209.49	475.2-477.4 209.5-210.49	477.5-479.7 210.5-211.49	479.8-482.0 211.5-212.49	482.1-484.3 212.5-213.49	484.4-486.6 213.5-214.49	486.7-488.9 214.5-215.49	488.0-490.2 215.5-216.49	490.3-492.5 216.5-217.49	492.6-494.8 217.5-218.49	494.9-497.1 218.5-219.49	497.2-499.4 219.5-220.49	499.5-501.7 220.5-221.49	501.8-504.0 221.5-222.49	504.1-506.3 222.5-223.49	506.4-508.6 223.5-224.49	508.5-510.7 224.5-225.49	510.8-513.0 225.5-226.49	513.1-515.3 226.5-227.49	515.4-517.6 227.5-228.49	517.7-519.9 228.5-229.49	519.0-521.2 229.5-230.49	521.3-523.5 230.5-231.49	523.6-525.8 231.5-232.49	525.9-528.1 232.5-233.49	528.2-530.4 233.5-234.49	530.3-532.5 234.5-235.49	532.6-534.8 235.5-236.49	534.9-537.1 236.5-237.49	537.2-539.4 237.5-238.49	539.5-541.7 238.5-239.49	541.8-544.0 239.5-240.49	544.1-546.3 240.5-241.49	546.4-548.6 241.5-242.49	548.5-550.7 242.5-243.49	550.8-553.0 243.5-244.49	553.1-555.3 244.5-245.49	555.4-557.6 245.5-246.49	557.5-559.7 246.5-247.49	559.8-562.0 247.5-248.49	562.1-564.3 248.5-249.49	564.4-566.6 249.5-250.49	566.7-568.9 250.5-251.49	568.0-570.2 251.5-252.49	570.3-572.5 252.5-253.49	572.6-574.8 253.5-254.49	574.9-577.1 254.5-255.49	577.2-579.4 255.5-256.49	579.5-581.7 256.5-257.49	581.8-584.0 257.5-258.49	584.1-586.3 258.5-259.49	586.4-588.6 259.5-260.49	588.5-590.7 260.5-261.49	590.8-593.0 261.5-262.49	593.1-595.3 262.5-263.49	595.4-597.6 263.5-264.49	597.5-599.7 264.5-265.49	600.0-602.2 265.5-266.49	602.3-604.5 266.5-267.49	604.6-606.8 267.5-268.49	606.9-609.1 268.5-269.49	609.2-611.4 269.5-270.49	611.5-613.7 270.5-271.49	613.8-616.0 271.5-272.49	616.1-618.3 272.5-273.49	618.4-620.6 273.5-274.49	620.7-622.9 274.5-275.49	622.0-624.2 275.5-276.49	624.3-626.5 276.5-277.49	626.6-628.8 277.5-278.49	628.9-631.1 278.5-279.49	631.2-633.4 279.5-280.49	633.5-635.7 280.5-281.49	635.8-638.0 281.5-282.49	638.1-640.3 282.5-283.49	640.4-642.6 283.5-284.49	642.7-644.9 284.5-285.49	644.0-646.2 285.5-286.49	646.3-648.5 286.5-287.49	648.6-650.8 287.5-288.49	650.9-653.1 288.5-289.49	653.2-655.4 289.5-290.49	655.5-657.7 290.5-291.49	657.8-660.0 291.5-292.49	660.1-662.3 292.5-293.49	662.4-664.6 293.5-294.49	664.7-666.9 294.5-295.49	666.0-668.2 295.5-296.49	668.3-670.5 296.5-297.49	670.6-672.8 297.5-298.49	672.9-675.1 298.5-299.49	675.2-677.4 299.5-300.49	677.5-679.7 300.5-301.49	679.8-682.0 301.5-302.49	682.1-684.3 302.5-303.49	684.4-686.6 303.5-304.49	686.7-688.9 304.5-305.49	688.0-690.2 305.5-306.49	690.3-692.5 306.5-307.49	692.6-694.8 307.5-308.49	694.9-697.1 308.5-309.49	697.2-699.4 309.5-310.49	699.5-701.7 310.5-311.49	701.8-704.0 311.5-312.49	704.1-706.3 312.5-313.49	706.4-708.6 313.5-314.49	708.5-710.7 314.5-315.49	710.8-713.0 315.5-316.49	713.1-715.3 316.5-317.49	715.4-717.6 317.5-318.49	717.7-719.9 318.5-319.49	719.0-721.2 319.5-320.49	721.3-723.5 320.5-321.49	723.6-725.8 321.5-322.49	725.9-728.1 322.5-323.49	728.2-730.4 323.5-324.49	730.3-732.5 324.5-325.49	732.6-734.8 325.5-326.49	734.9-737.1 326.5-327.49	737.2-739.4 327.5-328.49	739.5-741.7 328.5-329.49	741.8-744.0 329.5-330.49	744.1-746.3 330.5-331.49	746.4-748.6 331.5-332.49	748.5-750.7 332.5-333.49	750.8-753.0 333.5-334.49	753.1-755.3 334.5-335.49	755.4-757.6 335.5-336.49	757.5-759.7 336.5-337.49	759.8-762.0 337.5-338.49	762.1-764.3 338.5-339.49	764.4-766.6 339.5-340.49	766.7-768.9 340.5-341.49	768.0-770.2 341.5-342.49	770.3-772.5 342.5-343.49	772.6-774.8 343.5-344.49	774.9-777.1 344.5-345.49	777.2-779.4 345.5-346.49	779.5-781.7 346.5-347.49	781.8-784.0 347.5-348.49	784.1-786.3 348.5-349.49	786.4-788.6 349.5-350.49	788.5-790.7 350.5-351.49	790.8-793.0 351.5-352.49	793.1-795.3 352.5-353.49	795.4-797.6 353.5-354.49	797.5-799.7 354.5-355.49	800.0-802.2 355.5-356.49	802.3-804.5 356.5-357.49	804.6-806.8 357.5-358.49	806.9-809.1 358.5-359.49	809.2-811.4 359.5-360.49	811.5-813.7 360.5-361.49	813.8-816.0 361.5-362.49	816.1-818.3 362.5-363.49	818.4-820.6 363.5-364.49	820.7-822.9 364.5-365.49	822.0-824.2 365.5-366.49	824.3-826.5 366.5-367.49	826.6-828.8 367.5-368.49	828.9-831.1 368.5-369.49	831.2-833.4 369.5-370.49	833.5-835.7 370.5-371.49	835.8-838.0 371.5-372.49	838.1-840.3 372.5-373.49	840.4-842.6 373.5-374.49	842.7-844.9 374.5-375.49	844.0-846.2 375.5-376.49	846.3-848.5 376.5-377.49	848.6-850.8 377.5-378.49	850.9-853.1 378.5-379.49	853.2-855.4 379.5-380.49	855.5-857.7 380.5-381.49	857.8-860.0 381.5-382.49	860.1-862.3 382.5-383.49	862.4-864.6 383.5-384.49	864.7-866.9 384.5-385.49	866.0-868.2 385.5-386.49	868.3-870.5 386.5-387.49	870.6-872.8 387.5-388.49	872.9-875.1 388.5-389.49	875.2-877.4 389.5-390.49	877.5-879.7 390.5-391.49	879.8-882.0 391.5-392.49	882.1-884.3 392.5-393.49	884.4-886.6 393.5-394.49	886.7-888.9 394.5-395.49	888.0-890.2 395.5-396.49	890.3-892.5 396.5-397.49	892.6-894.8 397.5-398.49	894.9-897.1 398.5-399.49	897.2-899.4 399.5-400.49	899.5-901.7 400.5-401.49	901.8-904.0 401.5-402.49	904.1-906.3 402.5-403.49	906.4-908.6 403.5-404.49	908.5-910.7 404.5-405.49	910.8-913.0 405.5-406.49	913.1-915.3 406.5-407.49	915.4-917.6 407.5-408.49	917.7-919.9 408.5-409.49	919.0-921.2 409.5-410.49	921.3-923.5 410.5-411.4

ACQUIRE METEOROLOGICAL SURVEY TOWER DATA
SUMMARY OF PASQUILL F WIND OCCUR

FOR PERIOD OF 01-01-87 THRU 12-31-87
FEED CLASS (PERCENT)

87-14

01-01-87 THRU 12-31-87
(INCL)

WIND SECTOR	SECTOR TOTAL	WIND SPEED CLASS										DATE OF REPORT	02-11-88
		1.0-3.2 45-1.49	3.3-5.5 1.5-2.49	5.6-7.0 2.5-3.49	7.1-10.0 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	>21.3 MPH >9.5 M/S		
3-0-0	000.46	00.17	00.21	00.05	00.03	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
N-0-0	000.45	00.22	00.18	00.03	00.00	00.00	00.00	00.01	00.00	00.00	00.01	00.00	00.00
W-0-0	000.18	00.05	00.11	00.01	00.00	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
E-0-0	000.14	00.07	00.05	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
S-0-0	000.28	00.13	00.15	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
SW-0-0	000.25	00.13	00.11	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
SE-0-0	000.28	00.23	00.05	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
SSW-0-0	000.29	00.21	00.07	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
SSE-0-0	000.79	00.33	00.38	00.05	00.01	00.01	00.00	00.01	00.00	00.00	00.00	00.00	00.00
SW-0-0	001.63	00.40	00.84	00.38	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
WSW-0-0	001.50	00.49	00.66	00.33	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
W-0-0	000.48	00.29	00.17	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
WSW-0-0	000.63	00.34	00.23	00.06	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
W-0-0	000.65	00.34	00.21	00.09	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
WSW-0-0	000.79	00.46	00.23	00.08	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
W-0-0	000.57	00.31	00.15	00.09	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
WSW-0-0	000.02	00.17	00.38	00.23	00.11	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00
TOTAL	000.36	004.17	003.08	001.23	000.11	000.02	000.00	000.02	000.00	000.00	000.01	000.00	000.00

ACQUIRE METEOROLOGICAL SURVEY TOWER DATA SUMMARY OF PASQUILL G											
FOR PERIOD OF 01-01-87 THRU 12-31-87											
WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)											
DATE OF REPORT 02-11-88											
WIND SPEED CLASS											
WIND	SECTOR	1.0-3.2	3.3-5.5	5.6-7.7	7.8-10.0	10.1-12.3	12.4-14.5	14.6-16.7	16.8-19.0	19.1-21.2	>21.2 MPH
	TOTAL	1.0-3.2	3.3-5.5	5.6-7.7	7.8-10.0	10.1-12.3	12.4-14.5	14.6-16.7	16.8-19.0	19.1-21.2	>21.2 MPH
360.0	000.99	00.92	00.07	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-N-											
22.5	000.79	00.70	00.08	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-NE-											
45.0	000.43	00.42	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-NE-											
67.5	000.42	00.41	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-NE-											
90.0	000.32	00.30	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-E-											
112.5	000.61	00.55	00.06	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-ESE-											
135.0	000.86	00.81	00.05	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-SE-											
157.5	000.71	00.70	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-ESE-											
180.0	001.29	01.07	00.19	00.03	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-S-											
202.5	002.14	01.40	00.61	00.13	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-SSW-											
225.0	001.44	01.15	00.27	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-SW-											
247.5	000.70	00.67	00.03	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-WSW-											
270.0	000.75	00.65	00.09	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-W-											
292.5	000.74	00.66	00.08	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-WNW-											
315.0	000.72	00.64	00.06	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-NW-											
337.5	000.97	00.83	00.14	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-NNW-											
CALM	00.33										
TOTAL	013.88	011.88	001.79	000.22	000.50	000.99	000.00	000.00	000.00	000.00	000.00

ATTACHMENT 2

INOPERABLE INSTRUMENTATION

ATTACHMENT II

INOPERABLE EFFLUENT MONITORING INSTRUMENTATION

No effluent monitoring equipment was inoperable during the reporting period, although a technical specification-required surveillance was missed on a Waste Gas (WG) system tank.

Technical Specification 3/4.11.2.6 requires that material contained in each gas storage tank be sampled every 24 hours, when radioactive materials are being added to the tank, to determine that the quantity of radioactive material is less than or equal to 49,000 Curies of noble gases. On December 30, 1987, WG Shutdown Tank B was sampled at 1430 hours. Shutdown Tank B continued to receive air from Recycle Holdup Tank A until 2015 hours. Due to a personnel error, a sample was not obtained within the 24-hour interval following the December 30 sample. A sample was taken later on December 31 and verified to be well within Tech Spec limits.

For a more detailed description of the incident, refer to Licensee Event Report 369/87-37.