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**DUKE POWER**

March 25, 1996

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Subject: McGuire Nuclear Station  
Docket Nos. 50-369 and 50-370  
Annual Radioactive Effluent Release Report

Pursuant to Technical Specification 6.9.1.7 and SLC 16.11-16.2 of the McGuire Nuclear Station Selected Licensee Commitment Manual, attached is the subject report covering 1995.

The following attachments are the contents of this report:

- Attachment 1 Radioactive Effluent Releases and Supplemental Information
- Attachment 2 Solid Waste Disposal Report
- Attachment 3 Unplanned Offsite Releases
- Attachment 4 Fuel Cycle Calculation
- Attachment 5 Inoperable Monitoring Equipment

Revision 10 to the Corporate Process Control Manual was approved for use at McGuire on December 27, 1995. This revision was submitted to the NRC on January 10, 1996. Revision 37 to the Offsite Dose Calculation Manual (ODCM) was approved for use at McGuire on January 1, 1996. All dose calculation model assumptions are contained in the ODCM. This revision was submitted to the NRC on January 2, 1996.

Questions or problems concerning this report should be directed to Kay Crane at (704) 875-4306.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'T. C. McMeekin'.

T. C. McMeekin, Vice President  
McGuire Nuclear Station

Attachment

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cc: Mr. Victor Nerses  
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Mr. G. F. Maxwell  
Senior Resident Inspector  
McGuire Nuclear Station

Attachment 1

Radioactive Effluent Releases and Supplemental Information

## UNIT 1



MCGUIRE NUCLEAR STATION  
UNIT 1  
RADIOACTIVE EFFLUENT RELEASES  
DATE : 02/15/96

I. LIQUID RELEASES

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL	YEAR : 1995
1. GROSS RADIOACTIVITY							
A. TOTAL RELEASE	CURIES	1.92E-02	4.15E-03	6.69E-03	5.91E-03	3.59E-02	
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.41E-11	4.23E-12	6.74E-12	7.13E-12	9.98E-12	
C. MAXIMUM CONCENTRATION RELEASED	UCI/ML	5.09E-10	1.11E-10	1.45E-10	1.95E-10	5.09E-10	
2. TRITIUM							
A. TOTAL RELEASE	CURIES	6.08E+01	5.77E+01	7.67E+01	1.28E+02	3.23E+02	
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	7.65E-08	5.88E-08	7.73E-08	1.54E-07	8.98E-08	
3. DISSOLVED NOBLE GASES							
A. TOTAL RELEASE	CURIES	4.18E-04	6.67E-04	1.72E-03	1.56E-03	4.36E-03	
B. AVERAGE CONCENTRATION RELEASED	UCI/ML	5.26E-13	6.79E-13	1.73E-12	1.88E-12	1.21E-12	
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	6.38E+05	7.53E+05	1.27E+06	6.70E+06	9.37E+06	
6. VOLUME OF DILUTION WATER	LITERS	7.94E+11	9.82E+11	9.92E+11	8.30E+11	3.60E+12	
7. RADIONUCLIDES RELEASED	CURIES						EC RATIO

H-3	6.08E+01	5.77E+01	7.67E+01	1.28E+02	3.23E+02	8.98E-05
NA-24	2.78E-06	0.00E+00	1.51E-06	0.00E+00	4.29E-06	2.38E-11
CR-51	1.49E-03	1.54E-04	9.86E-06	6.21E-04	2.28E-03	1.27E-09
MN-54	2.40E-03	1.07E-03	1.26E-04	1.55E-04	3.75E-03	3.47E-08
FE-59	8.08E-05	1.76E-05	3.43E-06	6.37E-05	1.66E-04	4.60E-09
CO-57	1.07E-05	4.57E-06	6.03E-06	2.96E-06	2.43E-05	1.12E-10
CO-58	9.18E-03	1.76E-03	3.56E-03	3.16E-03	1.77E-02	2.46E-07
CO-60	2.32E-03	8.32E-04	1.55E-03	1.11E-03	5.81E-03	5.38E-07
BR-82	2.80E-06	3.83E-06	3.37E-06	4.75E-06	1.47E-05	1.02E-10
RB-88	0.00E+00	0.00E+00	5.64E-06	0.00E+00	5.64E-06	3.92E-12
SR-92	3.69E-06	0.00E+00	0.00E+00	1.89E-06	5.59E-06	3.88E-11
Y-92	5.94E-06	0.00E+00	6.89E-06	0.00E+00	1.28E-05	8.91E-11
NB-95	2.27E-04	6.08E-05	0.00E+00	2.65E-05	3.14E-04	2.91E-09
NB-97	1.87E-05	5.60E-06	0.00E+00	1.76E-05	4.19E-05	3.88E-11
ZR-95	1.34E-04	1.94E-05	0.00E+00	7.52E-06	1.61E-04	2.23E-09
MO-99	0.00E+00	0.00E+00	0.00E+00	2.40E-06	2.40E-06	3.33E-11
TC-99M	0.00E+00	4.30E-07	5.19E-07	2.40E-06	3.35E-06	9.30E-13
AG-110M	3.23E-05	9.02E-06	0.00E+00	7.11E-05	1.12E-04	5.21E-09
I-131	5.20E-06	2.35E-06	9.95E-06	6.55E-05	8.30E-05	2.31E-08
I-133	6.90E-07	5.51E-07	7.30E-06	9.04E-06	1.76E-05	6.98E-10
I-135	1.88E-04	0.00E+00	0.00E+00	0.00E+00	1.88E-04	1.74E-09
SB-122	0.00E+00	5.78E-07	0.00E+00	0.00E+00	5.78E-07	1.61E-11
SB-124	2.14E-04	0.00E+00	2.33E-05	0.00E+00	2.38E-04	9.43E-09
SB-125	2.32E-03	9.75E-05	9.07E-04	4.04E-05	3.37E-03	3.12E-08
SN-113	2.39E-05	0.00E+00	0.00E+00	0.00E+00	2.39E-05	2.21E-10
CS-134	3.95E-05	4.87E-06	1.40E-04	6.18E-05	2.46E-04	7.61E-08
CS-137	4.41E-04	7.74E-05	3.29E-04	3.25E-04	1.17E-03	3.26E-07
CS-138	2.22E-06	0.00E+00	1.33E-06	0.00E+00	3.54E-06	2.46E-12
LA-140	6.57E-06	2.82E-06	0.00E+00	1.53E-04	1.62E-04	5.00E-09
CE-144	0.00E+00	2.32E-05	0.00E+00	1.04E-05	3.36E-05	3.11E-09
KR-85M	0.00E+00	1.53E-07	0.00E+00	0.00E+00	1.53E-07	4.26E-13
XE-133	3.99E-04	6.12E-04	1.68E-03	1.54E-03	4.24E-03	1.18E-08
XE-133M	0.00E+00	0.00E+00	1.29E-05	3.57E-06	1.65E-05	4.58E-11
XE-135	1.90E-05	5.44E-05	2.15E-05	1.22E-05	1.07E-04	2.98E-10

TOTAL EC RATIO 9.12E-05

MCQUIRE UNIT 1 LIQUID RELEASE 001-090 95 7.94E+11

02/15/96

SKIN	MAXIMUM DOSE-	9.76E-03 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	75.71 %				
	SB 125	7.71 %				
	CS 137	6.90 %				
BONE	MAXIMUM DOSE-	1.64E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	5.89 %				
	CS 137	92.61 %				
LIVER	MAXIMUM DOSE-	6.37E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	73.21 %				
	CS 137	22.87 %				
T. BODY	MAXIMUM DOSE-	5.00E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	93.34 %				
THYROID	MAXIMUM DOSE-	4.69E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.52 %				
KIDNEY	MAXIMUM DOSE-	5.22E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	89.33 %				
	CS 137	9.11 %				
LUNG	MAXIMUM DOSE-	4.87E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	95.69 %				
GI-LLI	MAXIMUM DOSE-	5.70E-03 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	DRINKING
	H 3	61.38 %				
	NB 95	28.62 %				

MCGUIRE UNIT 1 LIQUID RELEASE 091-181 95 9.82E+11

02/15/96

SKIN	MAXIMUM DOSE-	2.72E-05 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	MN 54	7.41 %				
	CO 60	84.55 %				
BONE	MAXIMUM DOSE-	2.46E-04 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 137	93.89 %				
LIVER	MAXIMUM DOSE-	4.00E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	93.22 %				
	CS 137	5.53 %				
T. BODY	MAXIMUM DOSE-	3.78E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	98.43 %				
THYROID	MAXIMUM DOSE-	3.73E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.81 %				
KIDNEY	MAXIMUM DOSE-	3.81E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	97.67 %				
LUNG	MAXIMUM DOSE-	3.76E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.13 %				
GI-LLI	MAXIMUM DOSE-	3.87E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	96.19 %				

SKIN	MAXIMUM DOSE-	5.02E-05 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	81.16 %				
	CS 137	8.24 %				
BONE	MAXIMUM DOSE-	1.23E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	22.94 %				
	CS 137	76.23 %				
LIVER	MAXIMUM DOSE-	6.25E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	77.97 %				
	CS 134	7.40 %				
	CS 137	14.34 %				
T. BODY	MAXIMUM DOSE-	5.13E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	94.91 %				
THYROID	MAXIMUM DOSE-	4.89E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.65 %				
KIDNEY	MAXIMUM DOSE-	5.31E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	91.64 %				
	CS 137	5.50 %				
LUNG	MAXIMUM DOSE-	5.04E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	96.70 %				
GI-LLI	MAXIMUM DOSE-	4.94E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	98.68 %				

SKIN	MAXIMUM DOSE-	4.28E-05 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	81.65 %				
	CS 137	11.47 %				
BONE	MAXIMUM DOSE-	1.27E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	11.74 %				
	CS 137	87.64 %				
LIVER	MAXIMUM DOSE-	1.11E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	88.02 %				
	CS 137	9.61 %				
T. BODY	MAXIMUM DOSE-	9.97E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	97.62 %				
THYROID	MAXIMUM DOSE-	9.81E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.25 %				
KIDNEY	MAXIMUM DOSE-	1.02E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	95.77 %				
LUNG	MAXIMUM DOSE-	9.89E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	98.39 %				
GI-LLI	MAXIMUM DOSE-	9.84E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	98.90 %				

SKIN	MAXIMUM DOSE-	2.11E-04 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	79.25 %				
	CS 137	7.64 %				
BONE	MAXIMUM DOSE-	4.24E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	12.80 %				
	CS 137	86.11 %				
LIVER	MAXIMUM DOSE-	2.70E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	83.22 %				
	CS 137	12.91 %				
T. BODY	MAXIMUM DOSE-	2.34E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	96.30 %				
THYROID	MAXIMUM DOSE-	2.26E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.48 %				
KIDNEY	MAXIMUM DOSE-	2.40E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	93.85 %				
LUNG	MAXIMUM DOSE-	2.30E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	97.61 %				
GI-LLI	MAXIMUM DOSE-	2.34E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	96.22 %				

MCGUIRE NUCLEAR STATION  
UNIT 1  
RADIOACTIVE EFFLUENT RELEASES  
DATE : 02/15/96

II. AIRBORNE RELEASES

YEAR : 1995

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL	
1. TOTAL NOBLE GASES	CURIES	2.85E+01	1.78E+01	3.00E+01	4.97E+01	1.26E+02	
2. TOTAL HALOGENS	CURIES	1.37E-04	1.26E-06	1.24E-05	2.58E-05	1.76E-04	
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	1.58E-04	3.92E-05	9.58E-04	9.53E-06	1.16E-03	
4. TOTAL TRITIUM	CURIES	4.65E+00	4.68E+00	5.60E+00	1.45E+01	2.94E+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						EC RATIO
H-3		4.65E+00	4.68E+00	5.60E+00	1.45E+01	2.94E+01	7.09E-04

PARTICULATES

CL-38	8.95E-08	0.00E+00	0.00E+00	0.00E+00	8.95E-08	3.60E-12
CO-58	8.73E-05	0.00E+00	0.00E+00	9.42E-06	9.68E-05	2.33E-07
BR-82	7.47E-08	6.42E-08	4.42E-08	5.10E-08	2.34E-07	1.13E-10
RB-88	3.63E-07	2.91E-07	1.16E-06	5.44E-08	1.86E-06	5.00E-11
C-11	6.98E-05	3.88E-05	9.57E-04	0.00E+00	1.07E-03	4.28E-09

HALOGENS

I-131	1.67E-05	1.26E-06	4.94E-06	8.45E-06	3.13E-05	3.78E-07
I-132	0.00E+00	0.00E+00	0.00E+00	1.68E-05	1.68E-05	2.02E-09
I-133	1.20E-04	0.00E+00	7.42E-06	4.36E-07	1.28E-04	3.09E-07
I-134	0.00E+00	0.00E+00	0.00E+00	1.10E-07	1.10E-07	4.44E-12

GASES

AR-41	8.60E-01	8.60E-01	9.47E-01	9.76E-01	3.64E+00	8.79E-04
KR-85	1.74E-01	0.00E+00	0.00E+00	1.49E-01	3.23E-01	1.11E-06
KR-85M	9.89E-02	7.54E-02	1.02E-01	1.23E-01	3.99E-01	9.63E-06
KR-87	2.30E-02	1.10E-02	2.37E-02	2.68E-02	8.38E-02	1.01E-05
KR-88	1.08E-01	9.24E-02	1.11E-01	1.07E-01	4.18E-01	1.12E-04
XE-131M	1.65E-02	0.00E+00	3.37E-02	3.01E-02	7.99E-02	9.64E-08
XE-133	2.18E+01	1.39E+01	2.25E+01	4.11E+01	1.00E+02	4.84E-04
XE-133M	1.55E-01	1.73E-01	2.01E-01	6.39E-01	1.17E+00	4.69E-06
XE-135	5.20E+00	2.66E+00	5.06E+00	6.47E+00	1.94E+01	6.68E-04

TOTAL EC RATIO 2.88E-03

MCGUIRE UNIT 1 GAS DOSE 001-090 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NNE

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE =  $3.28\text{E-}02$  MILLIRADS  
GAMMA AIR DOSE =  $2.43\text{E-}02$  MILLIRADS

TOTAL BODY DOSE =  $1.56\text{E-}02$  MILLIREM

KR 88	6.84%
XE133	22.27%
XE135	37.77%
AR 41	31.88%

TOTAL SKIN DOSE =  $3.56\text{E-}02$  MILLIREM

KR 88	4.13%
XE133	27.49%
XE135	43.76%
AR 41	22.44%

MCGUIRE UNIT 1 GAS DOSE 001-090 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES ESE

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 77.12%

MAXIMUM ORGAN DOSE =  $9.32\text{E-}03$  MILLIREM  
H 3 95.43%



MCGUIRE UNIT 1 GAS DOSE 091-181 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NNE

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE =  $3.07E-02$  MILLIRADS  
GAMMA AIR DOSE =  $2.35E-02$  MILLIRADS

TOTAL BODY DOSE =  $1.51E-02$  MILLIREM  
KR 88 7.06%  
XE133 23.93%  
XE135 27.36%  
AR 41 40.60%

TOTAL SKIN DOSE =  $3.31E-02$  MILLIREM  
KR 88 4.46%  
XE133 30.85%  
XE135 33.12%  
AR 41 29.64%

MCGUIRE UNIT 1 GAS DOSE 091-181 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES ESE

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 78.29%

MAXIMUM ORGAN DOSE =  $7.04E-03$  MILLIREM  
H 3 99.71%

MCGUIRE UNIT 1 GAS DOSE 182-273 95 RELEASE WEIGHTED NET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NW

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE =  $3.39\text{E}-02$  MILLIRADS  
GAMMA AIR DOSE =  $2.36\text{E}-02$  MILLIRADS

TOTAL BODY DOSE =  $1.50\text{E}-02$  MILLIREM

KR 88	6.71%
XE133	27.97%
XE135	30.20%
AR 41	33.92%

TOTAL SKIN DOSE =  $3.41\text{E}-02$  MILLIREM

KR 88	4.07%
XE133	34.70%
XE135	35.14%
AR 41	24.01%

MCGUIRE UNIT 1 GAS DOSE 182-273 95 RELEASE WEIGHTED NET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES E

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 78.16%

MAXIMUM ORGAN DOSE =  $8.77\text{E}-03$  MILLIREM  
H 3 98.31%

MCGUIRE UNIT 1 GAS DOSE 274-365 95 RELEASE WEIGHTED NET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NNE

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 5.41E-02 MILLIRADS  
GAMMA AIR DOSE = 3.90E-02 MILLIRADS

TOTAL BODY DOSE = 2.50E-02 MILLIREM  
KR 88 5.57%  
XE133 22.16%  
XE135 40.92%  
AR 41 29.94%

TOTAL SKIN DOSE = 5.83E-02 MILLIREM  
KR 88 3.29%  
XE133 26.93%  
XE135 46.57%  
AR 41 20.67%

MCGUIRE UNIT 1 GAS DOSE 274-365 95 RELEASE WEIGHTED NET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES ESE

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 78.27%

MAXIMUM ORGAN DOSE = 4.25E-02 MILLIREM  
H 3 98.95%

MCGUIRE UNIT 1 GAS DOSE 001-365 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NNE

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE =  $1.50\text{E}-01$  MILLIRADS  
GAMMA AIR DOSE =  $1.09\text{E}-01$  MILLIRADS

TOTAL BODY DOSE =  $6.99\text{E}-02$  MILLIREM  
KR 88 6.35%  
XE133 23.67%  
XE135 35.47%  
AR 41 33.25%

TOTAL SKIN DOSE =  $1.59\text{E}-01$  MILLIREM  
KR 88 3.86%  
XE133 29.31%  
XE135 41.15%  
AR 41 23.43%

MCGUIRE UNIT 1 GAS DOSE 001-365 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES ESE

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 78.12%

MAXIMUM ORGAN DOSE =  $6.68\text{E}-02$  MILLIREM  
H 3 98.45%

## UNIT 2

MCGUIRE NUCLEAR STATION  
UNIT 2  
RADIOACTIVE EFFLUENT RELEASES  
DATE : 02/15/96

## 1. LIQUID RELEASES

YEAR : 1995

LIQUID RELEASES		UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL	EC RATIO
1.	GROSS RADIOACTIVITY							
	A. TOTAL RELEASE	CURIES	1.92E-02	4.15E-03	6.69E-03	5.91E-03	3.59E-02	
	B. AVERAGE CONCENTRATION RELEASED	UCI/ML	2.41E-11	4.23E-12	6.74E-12	7.13E-12	9.98E-12	
	C. MAXIMUM CONCENTRATION RELEASED	UCI/ML	5.09E-10	1.11E-10	1.45E-10	1.95E-10	5.09E-10	
2.	TRITIUM							
	A. TOTAL RELEASE	CURIES	6.08E+01	5.77E+01	7.67E+01	1.28E+02	3.23E+02	
	B. AVERAGE CONCENTRATION RELEASED	UCI/ML	7.65E-08	5.88E-08	7.73E-08	1.54E-07	8.98E-08	
3.	DISSOLVED NOBLE GASES							
	A. TOTAL RELEASE	CURIES	4.18E-04	6.67E-04	1.72E-03	1.56E-03	4.36E-03	
	B. AVERAGE CONCENTRATION RELEASED	UCI/ML	5.26E-13	6.79E-13	1.73E-12	1.88E-12	1.21E-12	
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	6.38E+05	7.53E+05	1.27E+06	6.70E+06	9.37E+06	
6.	VOLUME OF DILUTION WATER	LITERS	7.94E+11	9.82E+11	9.92E+11	8.30E+11	3.60E+12	
7.	RADIONUCLIDES RELEASED	CURIES						
	H-3		6.08E+01	5.77E+01	7.67E+01	1.28E+02	3.23E+02	8.98E-05
	NA-24		2.78E-06	0.00E+00	1.51E-06	0.00E+00	4.29E-06	2.38E-11
	CR-51		1.49E-03	1.54E-04	9.86E-06	6.21E-04	2.28E-03	1.27E-09
	MN-54		2.40E-03	1.07E-03	1.26E-04	1.55E-04	3.75E-03	3.47E-08
	FE-59		8.08E-05	1.76E-05	3.43E-06	6.37E-05	1.66E-04	4.60E-09
	CO-57		1.07E-05	4.57E-06	6.03E-06	2.96E-06	2.43E-05	1.12E-10
	CO-58		9.18E-03	1.76E-03	3.56E-03	3.16E-03	1.77E-02	2.46E-07
	CO-60		2.32E-03	8.32E-04	1.55E-03	1.11E-03	5.81E-03	5.38E-07
	BR-82		2.80E-06	3.83E-06	3.37E-06	4.75E-06	1.47E-05	1.02E-10
	RB-88		0.00E+00	0.00E+00	5.64E-06	0.00E+00	5.64E-06	3.92E-12
	SR-92		3.69E-06	0.00E+00	0.00E+00	1.89E-06	5.59E-06	3.88E-11
	Y-92		5.94E-06	0.00E+00	6.89E-06	0.00E+00	1.28E-05	8.91E-11
	NB-95		2.27E-04	6.08E-05	0.00E+00	2.65E-05	3.14E-04	2.91E-09
	NB-97		1.87E-05	5.60E-06	0.00E+00	1.76E-05	4.19E-05	3.88E-11
	ZR-95		1.34E-04	1.94E-05	0.00E+00	7.52E-06	1.61E-04	2.23E-09
	MO-99		0.00E+00	0.00E+00	0.00E+00	2.40E-06	2.40E-06	3.33E-11
	TC-99M		0.00E+00	4.30E-07	5.19E-07	2.40E-06	3.35E-06	9.30E-13
	AG-110M		3.23E-05	9.02E-06	0.00E+00	7.11E-05	1.12E-04	5.21E-09
	I-131		5.20E-06	2.35E-06	9.95E-06	6.55E-05	8.30E-05	2.31E-08
	I-133		6.90E-07	5.51E-07	7.30E-06	9.04E-06	1.76E-05	6.98E-10
	I-135		1.88E-04	0.00E+00	0.00E+00	0.00E+00	1.88E-04	1.74E-09
	SB-122		0.00E+00	5.78E-07	0.00E+00	0.00E+00	5.78E-07	1.61E-11
	SB-124		2.14E-04	0.00E+00	2.33E-05	0.00E+00	2.38E-04	9.43E-09
	SB-125		2.32E-03	9.75E-05	9.07E-04	4.04E-05	3.37E-03	3.12E-08
	SN-113		2.39E-05	0.00E+00	0.00E+00	0.00E+00	2.39E-05	2.21E-10
	CS-134		3.95E-05	4.87E-06	1.40E-04	6.18E-05	2.46E-04	7.61E-08
	CS-137		4.41E-04	7.74E-05	3.29E-04	3.25E-04	1.17E-03	3.26E-07
	CS-138		2.22E-06	0.00E+00	1.33E-06	0.00E+00	3.54E-06	2.46E-12
	LA-140		6.57E-06	2.82E-06	0.00E+00	1.53E-04	1.62E-04	5.00E-09
	CE-144		0.00E+00	2.32E-05	0.00E+00	1.04E-05	3.36E-05	3.11E-09
	KR-85M		0.00E+00	1.53E-07	0.00E+00	0.00E+00	1.53E-07	4.26E-13
	XE-133		3.99E-04	6.12E-04	1.68E-03	1.54E-03	4.24E-03	1.18E-08
	XE-133M		0.00E+00	0.00E+00	1.29E-05	3.57E-06	1.65E-05	4.58E-11
	XE-135		1.90E-05	5.44E-05	2.15E-05	1.22E-05	1.07E-04	2.98E-10
							TOTAL EC RATIO	9.12E-05

SKIN	MAXIMUM DOSE-	9.76E-05 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CO 60	75.21 %				
	SB 125	7.91 %				
	CS 137	6.90 %				
BONE	MAXIMUM DOSE-	1.64E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	5.89 %				
	CS 137	92.61 %				
LIVER	MAXIMUM DOSE-	6.37E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	73.21 %				
	CS 137	22.87 %				
T. BODY	MAXIMUM DOSE-	5.00E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	93.34 %				
THYROID	MAXIMUM DOSE-	4.69E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.52 %				
KIDNEY	MAXIMUM DOSE-	5.22E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	89.33 %				
	CS 137	9.11 %				
LUNG	MAXIMUM DOSE-	4.87E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	95.69 %				
GI-LLI	MAXIMUM DOSE-	5.70E-03 MREM	CRITICAL AGE-	ADULT	CRITICAL PATHWAY-	DRINKING
	H 3	61.38 %				
	NB 95	28.62 %				

SKIN	MAXIMUM DOSE-	2.72E-05 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	MN 54	7.41 %				
	CO 60	84.55 %				
BONE	MAXIMUM DOSE-	2.46E-04 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 137	93.89 %				
LIVER	MAXIMUM DOSE-	4.00E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	93.22 %				
	CS 137	5.53 %				
T. BODY	MAXIMUM DOSE-	3.78E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	98.43 %				
THYROID	MAXIMUM DOSE-	3.73E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.81 %				
KIDNEY	MAXIMUM DOSE-	3.81E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	97.67 %				
LUNG	MAXIMUM DOSE-	3.76E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.13 %				
GI-LLI	MAXIMUM DOSE-	3.87E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	96.19 %				



SKIN	MAXIMUM DOSE-	5.02E-05 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CS 60	81.16 %				
	CS 137	8.24 %				
BONE	MAXIMUM DOSE-	1.23E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	22.94 %				
	CS 137	76.23 %				
LIVER	MAXIMUM DOSE-	6.25E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	77.97 %				
	CS 134	7.40 %				
	CS 137	14.34 %				
T. BODY	MAXIMUM DOSE-	5.13E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	94.91 %				
THYROID	MAXIMUM DOSE-	4.89E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.65 %				
KIDNEY	MAXIMUM DOSE-	5.31E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	91.64 %				
	CS 137	5.50 %				
LUNG	MAXIMUM DOSE-	5.04E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	96.70 %				
GI-LLI	MAXIMUM DOSE-	4.94E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	98.68 %				

SKIN	MAXIMUM DOSE-	4.28E-05 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CS 60	81.68 %				
	CS 137	11.47 %				
BONE	MAXIMUM DOSE-	1.27E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	11.74 %				
	CS 137	87.64 %				
LIVER	MAXIMUM DOSE-	1.11E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	88.02 %				
	CS 137	9.61 %				
T. BODY	MAXIMUM DOSE-	9.97E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	97.62 %				
THYROID	MAXIMUM DOSE-	9.81E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.25 %				
KIDNEY	MAXIMUM DOSE-	1.02E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	95.77 %				
LUNG	MAXIMUM DOSE-	9.89E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	98.39 %				
GI-LLI	MAXIMUM DOSE-	9.84E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	98.90 %				

SKIN	MAXIMUM DOSE-	2.11E-04 MREM	CRITICAL AGE-	TEEN	CRITICAL PATHWAY-	SHORE
	CS 60	79.25 %				
	CS 137	7.64 %				
BONE	MAXIMUM DOSE-	4.24E-03 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	FISH
	CS 134	12.80 %				
	CS 137	86.11 %				
LIVER	MAXIMUM DOSE-	2.70E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	83.22 %				
	CS 137	12.91 %				
T. BODY	MAXIMUM DOSE-	2.34E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	96.30 %				
THYROID	MAXIMUM DOSE-	2.26E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	99.48 %				
KIDNEY	MAXIMUM DOSE-	2.40E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	93.85 %				
LUNG	MAXIMUM DOSE-	2.30E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	97.61 %				
GI-LLI	MAXIMUM DOSE-	2.34E-02 MREM	CRITICAL AGE-	CHILD	CRITICAL PATHWAY-	DRINKING
	H 3	96.22 %				

MCGUIRE NUCLEAR STATION  
UNIT 2  
RADIOACTIVE EFFLUENT RELEASES  
DATE : 02/15/96

II. AIRBORNE RELEASES

YEAR : 1995

	UNITS	1ST QTR	2ND QTR	3RD QTR	4TH QTR	TOTAL	
1. TOTAL NOBLE GASES	CURIES	2.85E+01	1.78E+01	3.00E+01	4.97E+01	1.26E+02	
2. TOTAL HALOGENS	CURIES	1.37E-04	1.26E-06	1.24E-05	2.58E-05	1.76E-04	
3. TOTAL PARTICULATE GROSS BETA-GAMMA	CURIES	1.58E-04	3.92E-05	9.58E-04	9.53E-06	1.16E-03	
4. TOTAL TRITIUM	CURIES	4.65E+00	4.68E+00	5.60E+00	1.45E+01	2.94E+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						EC RATIO
H-3		4.65E+00	4.68E+00	5.60E+00	1.45E+01	2.94E+01	7.09E-04
PARTICULATES							
CL-38		8.95E-08	0.00E+00	0.00E+00	0.00E+00	8.95E-08	3.60E-12
CO-58		8.73E-05	0.00E+00	0.00E+00	9.42E-06	9.68E-05	2.33E-07
BR-82		7.47E-08	6.42E-08	4.42E-08	5.10E-08	2.34E-07	1.13E-10
RB-88		3.63E-07	2.91E-07	1.16E-06	5.44E-08	1.86E-06	5.00E-11
C-11		6.98E-05	3.88E-05	9.57E-04	0.00E+00	1.07E-03	4.28E-09
HALOGENS							
I-131		1.67E-05	1.26E-06	4.94E-06	8.45E-06	3.13E-05	3.78E-07
I-132		0.00E+00	0.00E+00	0.00E+00	1.68E-05	1.68E-05	2.02E-09
I-133		1.20E-04	0.00E+00	7.42E-06	4.36E-07	1.28E-04	3.09E-07
I-134		0.00E+00	0.00E+00	0.00E+00	1.10E-07	1.10E-07	4.44E-12
GASES							
AR-41		8.60E-01	8.60E-01	9.47E-01	9.76E-01	3.64E+00	8.79E-04
KR-85		1.74E-01	0.00E+00	0.00E+00	1.49E-01	3.23E-01	1.11E-06
KR-85M		9.89E-02	7.54E-02	1.02E-01	1.23E-01	3.99E-01	9.63E-06
KR-87		2.30E-02	1.10E-02	2.30E-02	2.68E-02	8.38E-02	1.01E-05
KR-88		1.08E-01	9.24E-02	1.11E-01	1.07E-01	4.18E-01	1.12E-04
XE-131M		1.65E-02	0.00E+00	3.33E-02	3.01E-02	7.99E-02	9.64E-08
XE-133		2.18E+01	1.39E+01	2.35E+01	4.11E+01	1.00E+02	4.84E-04
XE-133M		1.55E-01	1.73E-01	2.01E-01	6.39E-01	1.17E+00	4.69E-06
XE-135		5.20E+00	2.66E+00	5.06E+00	6.47E+00	1.94E+01	6.68E-04

TOTAL EC RATIO 2.88E-03

MCGUIRE UNIT 2 GAS DOSE 001-090 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NNE

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE =  $3.28\text{E}-02$  MILLIRADS  
GAMMA AIR DOSE =  $2.43\text{E}-02$  MILLIRADS

TOTAL BODY DOSE =  $1.56\text{E}-02$  MILLIREM

KR 88	6.84%
XE133	22.27%
XE135	37.77%
AR 41	31.88%

TOTAL SKIN DOSE =  $3.56\text{E}-02$  MILLIREM

KR 88	4.13%
XE133	27.49%
XE135	43.76%
AR 41	22.44%

MCGUIRE UNIT 2 GAS DOSE 001-090 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES ESE

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 77.12%

MAXIMUM ORGAN DOSE =  $9.32\text{E}-03$  MILLIREM  
H 3 95.43%

MCGUIRE UNIT 2 GAS DOSE 091-181 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NNE

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE =  $3.07E-02$  MILLIRADS  
GAMMA AIR DOSE =  $2.35E-02$  MILLIRADS

TOTAL BODY DOSE =  $1.51E-02$  MILLIREM  
KR 88 7.06%  
XE133 23.93%  
XE135 27.36%  
AR 41 40.60%

TOTAL SKIN DOSE =  $3.31E-02$  MILLIREM  
KR 88 4.46%  
XE133 30.85%  
XE135 33.12%  
AR 41 29.64%

MCGUIRE UNIT 2 GAS DOSE 091-181 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES ESE

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 78.29%

MAXIMUM ORGAN DOSE =  $7.04E-03$  MILLIREM  
H 3 99.71%

MCGUIRE UNIT 2 GAS DOSE 182-273 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NW

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE =  $3.39\text{E}-02$  MILLIRADS  
GAMMA AIR DOSE =  $2.36\text{E}-02$  MILLIRADS

TOTAL BODY DOSE =  $1.50\text{E}-02$  MILLIREM  
KR 88 6.71%  
XE133 27.97%  
XE135 30.20%  
AR 41 33.92%

TOTAL SKIN DOSE =  $3.41\text{E}-02$  MILLIREM  
KR 88 4.07%  
XE133 34.70%  
XE135 35.14%  
AR 41 24.01%

MCGUIRE UNIT 2 GAS DOSE 182-273 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES E

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 78.16%

MAXIMUM ORGAN DOSE =  $8.77\text{E}-03$  MILLIREM  
H 3 98.31%

MCGUIRE UNIT 2 GAS DOSE 274-365 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NNE

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE =  $5.41\text{E-}02$  MILLIRADS  
GAMMA AIR DOSE =  $3.90\text{E-}02$  MILLIRADS

TOTAL BODY DOSE =  $2.50\text{E-}02$  MILLIREM  
KR 88 5.57%  
XE133 22.16%  
XE135 40.92%  
AR 41 29.94%

TOTAL SKIN DOSE =  $5.83\text{E-}02$  MILLIREM  
KR 88 3.29%  
XE133 26.93%  
XE135 46.57%  
AR 41 20.67%

MCGUIRE UNIT 2 GAS DOSE 274-365 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES ESE

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 78.27%

MAXIMUM ORGAN DOSE =  $4.25\text{E-}02$  MILLIREM  
H 3 98.95%



MCGUIRE UNIT 2 GAS DOSE 001-365 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES NNE

02/15/96

NOBLE GAS EXPOSURE:

BETA AIR DOSE = 1.50E-01 MILLIRADS  
GAMMA AIR DOSE = 1.09E-01 MILLIRADS

TOTAL BODY DOSE = 6.99E-02 MILLIREM  
KR 88 6.35%  
XE133 23.67%  
XE135 35.47%  
AR 41 33.25%

TOTAL SKIN DOSE = 1.59E-01 MILLIREM  
KR 88 3.86%  
XE133 29.31%  
XE135 41.15%  
AR 41 23.43%

MCGUIRE UNIT 2 GAS DOSE 001-365 95 RELEASE WEIGHTED MET REPORT SUMMARY  
SPECIAL LOCATION  
AT 0.50 MILES ESE

02/15/96

IODINE, PARTICULATE, AND TRITIUM EXPOSURE SUMMARY:

MAXIMUM ORGAN - THYROID  
CRITICAL AGE - CHILD  
CRITICAL PATHWAY - VEGET @ 78.12%

MAXIMUM ORGAN DOSE = 6.68E-02 MILLIREM  
H 3 98.45%

McGUIRE CONVENTIONAL WASTE WATER TREATMENT SYSTEM

EFFLUENT AND DOSE SUMMARY

# McGuire Conventional Waste Water Treatment System Effluent Summary

ENVIRONMENTAL RADIOLOGICAL LABORATORY  
RADIOACTIVE EFFLUENT RELEASES

YEAR 1995

02/21/96

PERIOD COVERED:

START DAY = 001

STOP DAY = 365

## I. LIQUID RELEASES

	UNITS	PERIOD COVERED	YEAR TO STOP
1. GROSS RADIOACTIVITY			
A. TOTAL RELEASE	CURIES	0.00E+00	0.00E+00
2. TRITIUM			
A. TOTAL RELEASE	CURIES	1.34E+00	1.34E+00
3. DISSOLVED SOLE GASES			
A. TOTAL RELEASE	CURIES	0.00E+00	0.00E+00
4. ALPHA ACTIVITY			
A. TOTAL RELEASE	CURIES	0.00E+00	0.00E+00
TOTAL VOLUME DISCHARGED (GALS.) =		7.33E+07	7.33E+07

## MCGUIRE CONVENTIONAL WASTE WATER TREATMENT SYSTEM DOSE SUMMARY - 1995 RELEASES

SKIN	MAXIMUM DOSE-	0.0	MREM	CRITICAL AGE- NONE	CRITICAL PATHWAY- NONE
BONE	MAXIMUM DOSE-	0.0	MREM	CRITICAL AGE- NONE	CRITICAL PATHWAY- NONE
LIVER	MAXIMUM DOSE-	4.85D-04	MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- DRINKING
		H 3 100%			
T. BODY	MAXIMUM DOSE-	4.85D-04	MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- DRINKING
		H 3 100%			
THYROID	MAXIMUM DOSE-	4.85D-04	MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- DRINKING
		H 3 100%			
KIDNEY	MAXIMUM DOSE-	4.85D-04	MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- DRINKING
		H 3 100%			
LUNG	MAXIMUM DOSE-	4.85D-04	MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- DRINKING
		H 3 100%			
GI-LLI	MAXIMUM DOSE-	4.85D-04	MREM	CRITICAL AGE- CHILD	CRITICAL PATHWAY- DRINKING
		H 3 100%			

SUPPLEMENTAL INFORMATION

MCGUIRE NUCLEAR STATION  
EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION  
REPORT DATE: 02/20/96  
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 EFFLUENT CONCENTRATIONS

- A. GASEOUS EFFLUENTS - INFORMATION FOUND IN OFFSITE DOSE CALCULATION MANUAL
- B. LIQUID EFFLUENTS - INFORMATION FOUND IN 10CFR20, 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.  $3.54 \times 10^2$  = TOTAL NUMBER OF BATCH RELEASES
2.  $3.19 \times 10^5$  = TOTAL TIME(MIN.) FOR BATCH RELEASES.
3.  $4.37 \times 10^4$  = MAXIMUM TIME(MIN.) FOR A BATCH RELEASE.
4.  $9.00 \times 10^2$  = AVERAGE TIME(MIN.) FOR A BATCH RELEASE.
5.  $7.00 \times 10^0$  = MINIMUM TIME(MIN.) FOR A BATCH RELEASE.
6.  $1.83 \times 10^6$  = AVERAGE DILUTION WATER FLOW DURING RELEASES(GPM).

B. GASEOUS EFFLUENT

1.  $7.40 \times 10^1$  = TOTAL NUMBER OF BATCH RELEASES.
2.  $1.43 \times 10^6$  = TOTAL TIME(MIN.) FOR BATCH RELEASES.
3.  $4.48 \times 10^4$  = MAXIMUM TIME(MIN.) FOR A BATCH RELEASE.
4.  $1.94 \times 10^4$  = AVERAGE TIME(MIN.) FOR A BATCH RELEASE.
5.  $2.40 \times 10^2$  = 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 2
2. TOTAL ACTIVITY RELEASED(CURIES) See Attachment 3

# SUPPLEMENTAL REPORT PAGE 2

## McGUIRE NUCLEAR STATION

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

<u>ISOTOPE</u>	<u>ENERGY</u> (Kev)	<u>AVERAGE</u> <u>MDA</u>
<u>Liquid</u>		
Xe-133	80	6.0E-08
Ce-144	133	1.2E-07
Kr-88	196	1.7E-07
Xe-135	249	2.3E-08
Kr-87	402	2.5E-07
Cs-137	661	2.6E-07
Mo-99	778	4.3E-07
Mn-54	834	2.2E-08
Zn-65	1115	4.0E-08
Co-60	1332	4.4E-08
<u>Gas</u>		
Xe-133	80	2.5E-08
Kr-85m	151	1.0E-08
Xe-131m	163	3.3E-07
Kr-88	196	4.7E-08
Xe-133m	233	7.9E-08
Xe-135	249	9.5E-09
Xe-138	258	6.3E-06
Kr-87	402	4.7E-08
Kr-85	514	2.5E-06
Xe-135m	526	1.9E-06
Ar-41	1293	3.6E-08

## SUPPLEMENTAL REPORT PAGE 3

### 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  $\pm 16.1\%$ . This value was derived by taking the square root of the sum of the squares of the following discrete individual estimates of error:

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

Attachment 2

Solid Waste Disposal Report

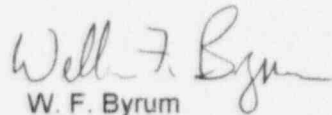


February 26, 1996

MEMORANDUM TO: Kay Crane

SUBJECT: McGuire Nuclear Site  
Annual Solid Radwaste Disposal Report - 1995 Calendar Year

Attached is the Annual Solid Radwaste Report for the period of January 1, 1995 through December 31, 1995 for the McGuire Nuclear Site. The format of the report includes information as required by McGuire Station Selected Licensee Commitment Manual Section 16.11. Please contact Joyce Correll at extension 4039 if further information is required.



W. F. Byrum  
Radiation Protection Manager  
McGuire Nuclear Site

cc: N. B. Sherrill  
G. T. Johnson  
J. C. Correll  
R. P. Michael (Chemistry)  
L. E. Loucks (G.O.)  
R. C. Lemons (G.O.)

McGUIRE NUCLEAR STATION  
SOLID RADIOACTIVE WASTE SHIPPED TO A DISPOSAL FACILITY

REPORT PERIOD 1/1/95 THROUGH 12/31/95

TYPES OF WASTE SHIPPED	Number of Shipments	Number of Containers	Container Type	Disposal Volume		Waste Class	Total Ci
				(cubic ft)	(cu. meter)		
WASTE FROM LIQUID SYSTEMS							
(A) Dewatered 2% Powdex Resin (brokered)		1	STC HIC	153	4.33	A A/S B C	1.66E-03
(B) Dewatered 2% Powdex Resin		1	STC HIC	207.4	5.87	1 A A/S B C	1.25E-04
(C) Dewatered 2% Bead Resin (brokered)	1	2	STC HIC	373.1	10.56	A A/S B C	2.23E-03
(D) Dewatered 2% Bead Resin	1	2	STC HIC	414.8	11.74	2 A A/S B C	8.55E-04
(E) Dewatered Radwaste System Resin			STC HIC			A A/S B C	
(F) Dewatered Primary Bead Resin	1	1	STC HIC	120.3	3.40	1 A A/S B C	5.83E+01
(G) Dewatered Mechanical Filter Media	2	7	STC HIC	18.4	0.52	3 A A/S B	4.33E+00
(H) Dewatered Mechanical Filter Media (Brokered)		6	STC HIC	25	0.71	4 C	1.68E+01
				17.8	0.50	A A/S B C	2.45E-01
(I) Solidified Waste			STC HIC			A A/S B C	
DRY SOLID WASTE							
(A) Dry Active Waste (compacted)			STC HIC			A A/S B C	
Dry Active Waste (non-compacted)	1	2	STC HIC	48.4	1.37	A A/S B C	2.21E+00
Dry Active Waste (brokered)	4	24	STC HIC	345.1	9.77	A A/S B C	3.75E+00
Dry Active Waste (brokered/non-compactible)			STC HIC			A A/S B C	
(B) Sealed Sources/Smoke Detectors			STC HIC			A A/S B C	
(C) Sealed Sources			STC HIC			A A/S B C	
(D) Irradiated Components			STC HIC			A A/S B C	
SUBTOTALS	10	46		1511.20	42.76	3 A	4.00E+00
				66.80	1.89	3 A/S	6.54E+00
				120.30	3.40	1 B	5.83E+01
				25.00	0.71	4 C	1.68E+01
TOTALS				1723.30	48.76	11.00	8.57E+01

**MCGUIRE NUCLEAR SITE  
SUMMARY OF MAJOR RADIONUCLIDE COMPOSITION**

Type of waste	Nuclide	% Abundance
<b>1. Waste from liquid systems:</b>		
A. Dewatered Secondary Powder Resin (Brokered)	Mn-54	6.7
	Fe-55	37.4
	Cs-134	4.9
	Co-60	18.9
	Ni-63	11.7
	C-14	1.9
	Tc-99	2.0
	Cs-137	14.8
	Ce-144	1.7
B. Dewatered Secondary Powder Resin	Mn-54	4.9
	Fe-55	35.4
	Co-58	2.3
	Co-60	17.9
	Ni-63	11.1
	C-14	1.8
	Tc-99	2.3
	Cs-134	4.8
	Cs-137	17.4
C. Dewatered Secondary Bead Resin (Brokered)	Mn-54	3.7
	Fe-55	22.1
	Sb-125	1.2
	Co-60	17.4
	Ni-63	31.8
	Cs-134	3.7
	Cs-137	19.8
	Ce-144	0.2
D. Dewatered Secondary Bead Resin	Mn-54	3.4
	Fe-55	11.8
	Co-60	9.3
	Co-58	1.9
	Ni-63	17.0
	Sb-125	0.9
	Cs-134	7.6
	Cs-137	46.2
	Ce-144	1.9
E. Dewatered Radwaste System Resin	I-131	0.1
	None shipped to a disposal facility this report period.	

F. Dewatered Primary Bead Resin

Mn-54	6.9
Fe-55	5.3
Co-58	65.9
Co-60	10.2
Ni-59	0.1
Ni-63	0.4
Sb-125	3.2
H-3	0.1
Cs-134	2.0
Cs-137	5.9

G. Dewatered Cartridge Filters

Cr-51	0.4
Mn-54	4.1
Fe-55	55.8
Co-58	11.8
Co-60	19.8
Ni-63	6.4
C-14	0.1
Zr-95	0.3
Cs-137	0.4
Pu-241	0.2
Sb-125	0.7

H. Dewatered Cartridge Filters  
(Brokered)

C-14	0.1
Co-58	15.2
Co-60	18.7
Cr-51	0.2
Cs-137	0.3
Fe-55	53.8
H-3	0.1
Mn-54	4.2
Nb-95	0.1
Ni-63	6.0
Pu-241	0.1
Sb-125	0.5
Zr-95	0.7

I. Solidified Waste

None shipped to a disposal facility  
this report period.

## 2. Dry Solid Waste:

### A. Dry Active Waste

Mn-54	1.3
Co-58	1.1
Co-60	31.5
Cs-137	0.7
Fe-55	49.3
Ni-63	15.5
H-3	0.4
C-14	0.2

### B. Sealed Sources/Smoke Detectors

None shipped to a disposal facility  
this report period.

### C. Sealed Sources

None shipped to a disposal facility  
this report period.

### D. Irradiated Components

None shipped to a disposal facility  
this report period.

2/27/96

Attachment 3

Unplanned Offsite Releases

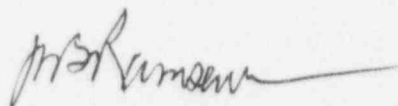
September 12, 1995

MEMORANDUM TO FILE

Subject: McGuire Nuclear Station  
Release from Unit 2 Rx. Bldg.  
to the Aux. Bldg. Due to UPAL  
Failure.

On August 16, 1995, the unit 2 Upper Personnel Airlock auxiliary side door seal failed to inflate while the reactor side door was open. The result was a loss of containment integrity and an unplanned, uncontrolled release from containment to the auxiliary building. The release was monitored by the Unit Vent monitors (EMF 35,36,37, particulate, gas & iodine, respectively) before being released to the environment. 2EMF35,36,37 showed no change as a result of this release. IEMF35 increased from ~30CPM to ~60CPM, and 1EMF36 increased from ~25CPM to ~55CPM. There was no change in 1EMF37. The activity did not exceed any Tech. Spec./SLC limits.

The activity released during this event was accounted for at the first of September when procedure HP/0/B/1003/01, Unit Vent Calculations, was performed.



M.B. Ramseur  
Shift Support Supervisor  
Radiation Protection  
McGuire Nuclear Station

.cc W.F.Byrum  
L.K.Criminger  
Annual Report

## Attachment 4

### Fuel Cycle Calculation



MAXIMUM TOTAL BODY	NNE 0.50 MILES	1.87E-01	AGE : CHILD
MNS.GAS		1.40E-01	74.6 %
	KR 88		6.3 %
	XE133		23.6 %
	XE135		35.4 %
	AR 41		33.2 %
MNS.LIQUID		4.67E-02	24.9 %
CRITICAL PATH	DRINKING		95.5 %
	H 3		96.3 %
CNS.GAS		6.67E-04	0.3 %
	XE133		51.1 %
	XE135		10.9 %
	AR 41		33.4 %

MAXIMUM ORGAN	ESE 0.50 MILES	1.96E-01	AGE : CHILD	ORGAN : LIVER
MNS.GAS		1.32E-01	67.0 %	
CRITICAL PATH	GARDEN		78.2 %	
	H 3		99.9 %	
MNS.LIQUID		5.41E-02	27.5 %	
CRITICAL PATH	DRINKING		82.8 %	
	H 3		83.1 %	
	CS 137		12.9 %	
CNS.GAS		1.06E-02	5.3 %	
CRITICAL PATH	GARDEN		43.4 %	
	H 3		92.3 %	
	CS 60		7.4 %	

MAXIMUM TOTAL BODY	NNE 0.50 MILES	1.87E-01	AGE : CHILD
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MAXIMUM ORGAN	ESE 0.50 MILES	1.96E-01	AGE : CHILD	ORGAN : LIVER
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## METEOROLOGICAL DATA





SUMMARY OF PASQUILL C									
MCQUIRE METEOROLOGICAL SURVEY TOWER DATA									
FOR PERIOD OF 01-01-95 THRU 12-31-95									
WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)									
DATE OF REPORT									
02-15-96									
MIND SPEED CLASS									
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									
.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									
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
SECTOR 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 >21.2 MPH
360.0	00.03	00.67	00.34	00.06	00.02	00.03	00.08	00.00	00.01
-N-									
22.5	00.01	00.49	00.32	00.18	00.25	00.07	00.09	00.01	00.00
-NNE-									
45.0	00.00	00.16	00.43	00.31	00.13	00.01	00.02	00.00	00.00
-NE-									
67.5	00.01	00.09	00.08	00.07	00.02	00.01	00.00	00.00	00.00
-ENE-									
90.0	00.01	00.05	00.08	00.01	00.00	00.00	00.00	00.00	00.00
-E-									
112.5	00.00	00.10	00.06	00.00	00.00	00.00	00.00	00.00	00.00
-ESE-									
135.0	00.00	00.22	00.07	00.02	00.02	00.02	00.00	00.00	00.00
-SE-									
157.5	00.00	00.16	00.07	00.01	00.00	00.00	00.00	00.00	00.00
-SSE-									
180.0	00.00	00.18	00.27	00.11	00.03	00.00	00.00	00.00	00.00
-S-									
202.5	00.02	00.27	00.39	00.38	00.08	00.06	00.01	00.00	00.00
-SSW-									
225.0	00.02	00.15	00.18	00.18	00.09	00.02	00.03	00.01	00.00
-SW-									
247.5	00.02	00.08	00.10	00.06	00.02	00.05	00.00	00.00	00.00
-WSW-									
270.0	00.00	00.06	00.09	00.07	00.00	00.01	00.02	00.00	00.00
-W-									
292.5	00.03	00.09	00.08	00.06	00.08	00.07	00.01	00.00	00.01
-WNW-									
315.0	00.02	00.08	00.05	00.08	00.03	00.06	00.02	00.00	00.02
-NW-									
337.5	00.01	00.15	00.02	00.01	00.03	00.05	00.02	00.01	00.00
-NNW-									
CALM									
TOTAL	000.18	003.00	002.63	001.61	000.80	000.46	000.30	000.03	000.03

SUMMARY OF PASQUILL D				FOR PERIOD OF 01-01-95 THRU 12-31-95									
MCQUIRE METEOROLOGICAL SURVEY TOWER DATA				WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)									
				DATE OF REPORT									
				02-15-96									
WIND SECTOR		SECTOR TOTAL		WIND SPEED CLASS									
		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		00.15	00.78	00.40	00.53	00.48	00.37	00.17	00.15	00.02	00.00		
-N-													
22.5		00.08	00.96	01.69	01.74	00.96	00.49	00.24	00.10	00.02	00.00		
-NNE-													
45.0		00.03	00.57	01.78	02.23	01.21	00.32	00.01	00.00	00.00	00.00		
-NE-													
67.5		00.02	00.33	00.74	00.86	00.45	00.11	00.00	00.00	00.00	00.00		
-ENE-													
90.0		00.07	00.34	00.34	00.10	00.01	00.00	00.00	00.00	00.00	00.00		
-E-													
112.5		00.07	00.62	00.16	00.02	00.01	00.01	00.00	00.00	00.00	00.00		
-ESE-													
135.0		00.13	00.50	00.08	00.08	00.15	00.01	00.00	00.00	00.00	00.00		
-SE-													
157.5		00.13	00.55	00.08	00.08	00.02	00.03	00.01	00.00	00.00	00.00		
-SSE-													
180.0		00.14	00.88	00.58	00.21	00.13	00.06	00.00	00.02	00.07	00.00		
-S-													
202.5		00.33	01.08	01.08	00.71	00.30	00.14	00.06	00.00	00.00	00.00		
-SSW-													
225.0		00.25	00.79	00.71	00.41	00.21	00.07	00.02	00.00	00.00	00.00		
-SW-													
247.5		00.21	00.50	00.23	00.17	00.15	00.01	00.01	00.00	00.00	00.00		
-WSW-													
270.0		00.22	00.19	00.16	00.06	00.08	00.03	00.02	00.00	00.00	00.00		
-W-													
292.5		00.24	00.21	00.17	00.14	00.07	00.10	00.02	00.01	00.00	00.02		
-WSW-													
315.0		00.16	00.18	00.19	00.17	00.26	00.18	00.11	00.00	00.01	00.00		
-WN-													
337.5		00.13	00.25	00.18	00.62	00.61	00.24	00.03	00.06	00.02	00.00		
-NNW-													
CALM		00.00											
TOTAL		002.36	008.73	008.57	008.13	005.10	002.17	000.70	000.34	000.14	000.02		

HCGUIRE METEOROLOGICAL SURVEY TOWER DATA				FOR PERIOD OF 01-01-95 THRU 12-31-95									
SUMMARY OF PASQUILL E				WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)									
				DATE OF REPORT									
				02-15-96									
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	000.78	00.15	00.26	00.18	00.13	00.06	00.00	00.00	00.00	00.00	00.00		
N-N													
22.5	001.15	00.06	00.26	00.41	00.23	00.03	00.10	00.03	00.03	00.00	00.00		
NNE													
45.0	001.11	00.03	00.30	00.46	00.26	00.03	00.03	00.00	00.00	00.00	00.00		
NNE													
67.5	001.00	00.06	00.27	00.54	00.13	00.00	00.00	00.00	00.00	00.00	00.00		
ENE													
90.0	001.18	00.10	00.68	00.35	00.05	00.00	00.00	00.00	00.00	00.00	00.00		
E													
112.5	001.28	00.07	00.96	00.25	00.00	00.00	00.00	00.00	00.00	00.00	00.00		
ESE													
135.0	000.83	00.34	00.45	00.03	00.00	00.00	00.01	00.00	00.00	00.00	00.00		
SE													
157.5	000.91	00.24	00.41	00.10	00.09	00.06	00.00	00.00	00.01	00.00	00.00		
SSE													
180.0	002.39	00.45	00.86	00.61	00.29	00.13	00.03	00.02	00.00	00.00	00.00		
S													
202.5	003.74	00.50	01.18	00.96	00.70	00.29	00.10	00.01	00.00	00.00	00.00		
SSW													
225.0	002.07	00.46	00.87	00.41	00.22	00.09	00.01	00.01	00.00	00.00	00.00		
WSW													
247.5	000.99	00.42	00.38	00.16	00.03	00.00	00.00	00.00	00.00	00.00	00.00		
WSW													
270.0	000.95	00.32	00.29	00.15	00.13	00.06	00.00	00.00	00.00	00.00	00.00		
N													
292.5	001.25	00.30	00.24	00.34	00.25	00.09	00.00	00.01	00.01	00.01	00.00		
NNW													
315.0	001.44	00.17	00.48	00.40	00.26	00.06	00.07	00.00	00.00	00.00	00.00		
NNW													
337.5	000.88	00.05	00.19	00.40	00.17	00.06	00.00	00.01	00.00	00.00	00.00		
NNW													
CALM	00.01												
TOTAL	021.95	003.72	008.08	005.75	002.94	000.96	000.35	000.09	000.05	000.01	000.00		







SUMMARY OF PASQUILL G									
MCQUIRE METEOROLOGICAL SURVEY TOWER DATA									
FOR PERIOD OF 01-01-95 THRU 12-31-95									
WIND OCCURRENCES BY SECTOR + SPEED CLASS (PERCENT)									
DATE OF REPORT 02-15-96									
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	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	00.62	00.09	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-N-	00.71	00.09	00.00	00.00	00.00	00.00	00.00	00.00	00.00
22.5	00.54	00.05	00.01	00.00	00.00	00.00	00.00	00.00	00.00
-NNE-	00.38	00.05	00.00	00.00	00.00	00.00	00.00	00.00	00.00
45.0	00.35	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-NE-	00.29	00.00	00.00	00.00	00.00	00.00	00.00	00.00	00.00
67.5	00.84	00.05	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-ENE-	01.16	00.02	00.00	00.00	00.00	00.00	00.00	00.00	00.00
90.0	01.36	00.03	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-E-	01.40	00.35	00.02	00.01	00.00	00.00	00.00	00.00	00.00
112.5	01.35	00.41	00.00	00.01	00.00	00.00	00.00	00.00	00.00
-ESE-	01.07	00.26	00.02	00.00	00.00	00.00	00.00	00.00	00.00
135.0	00.72	00.09	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-SE-	00.45	00.06	00.01	00.00	00.00	00.00	00.00	00.00	00.00
157.5	00.53	00.08	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-SSE-	00.50	00.03	00.00	00.00	00.00	00.00	00.00	00.00	00.00
180.0	00.62	00.08	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-S-	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
202.5	012.09	001.67	000.06	000.02	000.00	000.00	000.00	000.00	000.00
-SSW-	013.84	012.09	001.67	000.06	000.02	000.00	000.00	000.00	000.00
225.0	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-SW-	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
247.5	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-WSW-	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
270.0	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-W-	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
292.5	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-WNW-	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
315.0	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-NW-	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
337.5	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
-NNW-	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
CALM	00.01	00.01	00.00	00.00	00.00	00.00	00.00	00.00	00.00
TOTAL	013.84	012.09	001.67	000.06	000.02	000.00	000.00	000.00	000.00

Attachment 5

Inoperable Monitoring Equipment

September 12, 1995

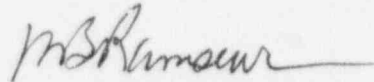
MEMORANDUM TO FILE

Subject: McGuire Nuclear Station  
1EMF38 out of service for a period exceeding  
the Tech Spec limit of 30 days.

Reference: Licensee Event Report (LER) 369/95-04

On August 21, 1995, it was determined that 1EMF38, Containment Atmosphere Particulate Radioactivity Monitoring System, was technically past inoperable from October 11, 1994, to August 15, 1995. During a channel calibration, it was revealed that the filter paper had run out. A time delay relay for the filter paper not moving circuit was found to have failed. Routine samples taken during this time showed no unusual particulate activity. 1EMF40, which contains a charcoal filter and is downstream of EMF38, showed no increase in activity during the inoperable period.

Since containment activity has a final release point out the Unit Vent, any activity released during this time period was accounted for by the monthly performance of procedure HP/0/B/1003/01, Unit Vent Calculations.



M.B. Ramseur  
Shift Support Supervisor  
Radiation Protection  
McGuire Nuclear Station

.cc W.F. Byrum  
L.K. Criminger  
Annual Report