Duke Energy

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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 the requirements of Technical Specification 5.6.3, attached is the above referenced report covering the year 2000.

The following Attachments form the contents of the 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

Pursuant to the requirements of Selected Licensee Commitment 16.11.17, the following changes were made during this reporting period. Revision 15 to the McGuire Process Control Manual was approved for use at McGuire on April 12, 2000. This revision was submitted to the NRC on June 1, 2000. Revision 41 to the Offsite Dose Calculation Manual (ODCM) was approved for use at McGuire on January 1, 2000. All dose calculation model assumptions are contained in the ODCM. This revision was submitted to the NRC on January 31, 2000.

There are no regulatory commitments contained in this correspondence. Duke Energy is not requesting any NRC staff review of this report.

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

Very truly yours,

/ H B Barron

H. B. Barron, Vice President
McGuire Nuclear Station

Attachment

IE48

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McGuire Nuclear Station

Attachment 1

Radioactive Effluent Releases and Supplemental Information

McGUIRE NUCLEAR STATION

EFFLUENT RELEASE DATA

(January 1, 2000 through December 31, 2000)

This attachment includes a summary of the quantities of radioactive liquid and gaseous effluents as outlined in Regulatory Guide 1.21, Appendix B.

TABLE 1A

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2000	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
A. Fission and Activation Gases						
1. Total Release	Ci	8.80E-01	1.31E+00	9.31E-01	9.72E-01	4.10E+00
2. Avg. Release Rate	µCi/sec	1.12E-01	1.67E-01	1.17E-01	1.22E-01	1.30E-01
B. Iodine-131						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2. Avg. Release Rate	µCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
C. Particulates Half Life >= 8 days						
1. Total Release	Ci	0.00E+00	0.00E+00	1.60E-07	0.00E+00	1.60E-07
2. Avg. Release Rate	µCi/sec	0.00E+00	0.00E+00	2.01E-08	0.00E+00	5.06E-09
D. Tritium						
1. Total Release	Ci	3.29E+01	4.06E+01	5.89E+01	6.18E+01	1.94E+02
2. Avg. Release Rate	µCi/sec	4.19E+00	5.16E+00	7.42E+00	7.77E+00	6.14E+00

TABLE 1B

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS EFFLUENTS - ELEVATED RELEASES - CONTINUOUS MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2000	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
2. Iodines						
** No Nuclide Activities **		.....	.....	.....	.....	.....
3. Particulates Half Life >= 8 days						
** No Nuclide Activities **		.....	.....	.....	.....	.....
4. Tritium						
** No Nuclide Activities **		.....	.....	.....	.....	.....

TABLE 1B

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS EFFLUENTS - ELEVATED RELEASES - BATCH MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2000	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
2. Iodines						
** No Nuclide Activities **		.....	.....	.....	.....	.....
3. Particulates Half Life >= 8 days						
** No Nuclide Activities **		.....	.....	.....	.....	.....
4. Tritium						
** No Nuclide Activities **		.....	.....	.....	.....	.....

TABLE 1C

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS EFFLUENTS - GROUND RELEASES - CONTINUOUS MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2000	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
XE-133	Ci	0.00E+00	2.32E-04	0.00E+00	0.00E+00	2.32E-04
XE-133M	Ci	0.00E+00	6.03E-06	0.00E+00	0.00E+00	6.03E-06
Totals for Period...	Ci	0.00E+00	2.38E-04	0.00E+00	0.00E+00	2.38E-04
2. Iodines						
** No Nuclide Activities **		.....	.....	.....	.....	.....
3. Particulates Half Life >= 8 days						
CO-58	Ci	0.00E+00	0.00E+00	1.60E-07	0.00E+00	1.60E-07
Totals for Period...	Ci	0.00E+00	0.00E+00	1.60E-07	0.00E+00	1.60E-07
4. Tritium						
H-3	Ci	3.26E+01	4.04E+01	5.71E+01	6.16E+01	1.92E+02
Totals for Period...	Ci	3.26E+01	4.04E+01	5.71E+01	6.16E+01	1.92E+02

TABLE 1C

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS EFFLUENTS - GROUND RELEASES - BATCH MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2000	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
AR-41	Ci	8.28E-01	1.21E+00	7.71E-01	9.06E-01	3.72E+00
KR-85	Ci	0.00E+00	0.00E+00	8.31E-02	4.37E-03	8.74E-02
XE-133	Ci	3.84E-02	9.49E-02	6.49E-02	5.74E-02	2.56E-01
XE-135	Ci	1.39E-02	9.36E-03	1.20E-02	4.01E-03	3.92E-02
Totals for Period...	Ci	8.80E-01	1.31E+00	9.31E-01	9.72E-01	4.10E+00
Iodines						
I-133	Ci	0.00E+00	0.00E+00	0.00E+00	5.25E-08	5.25E-08
Totals for Period...	Ci	0.00E+00	0.00E+00	0.00E+00	5.25E-08	5.25E-08
Particulates Half Life >= 8 days						
** No Nuclide Activities **		.....	.....	.....	.....	.....
Tritium						
H-3	Ci	2.88E-01	1.57E-01	1.81E+00	2.17E-01	2.48E+00
Totals for Period...	Ci	2.88E-01	1.57E-01	1.81E+00	2.17E-01	2.48E+00

TABLE 2A

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2000	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
A. Fission and Activation Products						
1. Total Release	Ci	5.33E-02	9.73E-03	4.49E-02	4.60E-02	1.54E-01
2. Average Diluted Concentration						
a. Continuous Releases	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
b. Batch Releases	µCi/ml	6.20E-11	9.96E-12	5.14E-11	4.90E-11	4.22E-11
B. Tritium						
1. Total Release	Ci	1.36E+02	7.38E+01	3.79E+02	2.54E+02	8.43E+02
2. Average Diluted Concentration						
a. Continuous Releases	µCi/ml	6.06E-09	3.91E-09	5.45E-08	6.37E-09	1.72E-08
b. Batch Releases	µCi/ml	1.58E-07	7.51E-08	4.28E-07	2.70E-07	2.29E-07
C. Dissolved and Entrained Gases						
1. Total Release	Ci	0.00E+00	0.00E+00	6.22E-06	0.00E+00	6.22E-06
2. Average Diluted Concentration						
a. Continuous Releases	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
b. Batch Releases	µCi/ml	0.00E+00	0.00E+00	7.12E-15	0.00E+00	1.71E-15
D. Gross Alpha Radioactivity						
1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2. Average Diluted Concentration						
a. Continuous Releases	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
b. Batch Releases	µCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
E. Volume of Liquid Waste						
1. Continuous Releases	liters	7.34E+07	5.85E+07	1.05E+08	8.42E+07	3.21E+08
2. Batch Releases	liters	7.56E+05	9.47E+05	1.05E+07	1.52E+06	1.37E+07
F. Volume of Dilution Water						
1. Continuous Releases	liters	8.60E+10	9.77E+10	8.74E+10	9.38E+10	3.65E+11
2. Batch Releases	liters	8.60E+11	9.77E+11	8.74E+11	9.38E+11	3.65E+12

TABLE 2B

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
LIQUID EFFLUENTS - CONTINUOUS MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2000	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
2. Tritium						
H-3	Ci	5.21E-01	3.82E-01	4.77E+00	5.98E-01	6.27E+00
Totals for Period...	Ci	5.21E-01	3.82E-01	4.77E+00	5.98E-01	6.27E+00
3. Dissolved and Entrained Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
4. Gross Alpha Radioactivity						
** No Nuclide Activities **		.....	.....	.....	.....	.....

TABLE 2B

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
LIQUID EFFLUENTS - BATCH MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2000	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
AG-108M	Ci	3.69E-05	0.00E+00	0.00E+00	0.00E+00	3.69E-05
AG-110M	Ci	1.24E-02	2.10E-03	2.41E-04	3.86E-05	1.47E-02
BA-140	Ci	0.00E+00	0.00E+00	0.00E+00	2.03E-05	2.03E-05
BR-82	Ci	0.00E+00	0.00E+00	0.00E+00	1.85E-06	1.85E-06
CE-143	Ci	2.47E-06	0.00E+00	0.00E+00	0.00E+00	2.47E-06
CE-144	Ci	6.14E-05	0.00E+00	0.00E+00	0.00E+00	6.14E-05
CO-57	Ci	2.43E-04	2.59E-05	7.06E-05	1.39E-04	4.78E-04
CO-58	Ci	3.02E-02	2.33E-03	3.38E-02	2.79E-02	9.43E-02
CO-60	Ci	5.83E-03	1.44E-03	2.57E-03	1.96E-03	1.18E-02
CR-51	Ci	1.14E-03	0.00E+00	3.86E-03	2.92E-03	7.92E-03
CS-134	Ci	0.00E+00	1.25E-05	2.26E-04	3.07E-04	5.46E-04
CS-137	Ci	5.75E-05	4.22E-04	2.64E-03	3.02E-03	6.13E-03
FE-59	Ci	1.11E-04	0.00E+00	6.55E-05	1.34E-04	3.10E-04
I-131	Ci	0.00E+00	0.00E+00	0.00E+00	1.41E-06	1.41E-06
I-133	Ci	0.00E+00	0.00E+00	0.00E+00	8.47E-07	8.47E-07
LA-140	Ci	1.39E-05	0.00E+00	0.00E+00	0.00E+00	1.39E-05
MN-54	Ci	1.40E-03	2.26E-04	3.70E-04	1.73E-04	2.17E-03
NB-95	Ci	0.00E+00	0.00E+00	5.86E-05	8.40E-05	1.43E-04
NB-97	Ci	4.80E-06	2.77E-06	1.56E-05	0.00E+00	2.32E-05
RU-106	Ci	2.75E-05	0.00E+00	0.00E+00	0.00E+00	2.75E-05
SB-124	Ci	0.00E+00	0.00E+00	0.00E+00	2.19E-05	2.19E-05
SB-125	Ci	1.61E-03	3.16E-03	9.32E-04	9.17E-03	1.49E-02
SR-92	Ci	3.70E-05	1.20E-05	0.00E+00	0.00E+00	4.89E-05
ZR-95	Ci	1.28E-04	0.00E+00	2.25E-05	2.96E-05	1.81E-04
ZR-97	Ci	1.08E-06	8.94E-07	0.00E+00	0.00E+00	1.98E-06
Totals for Period...	Ci	5.33E-02	9.73E-03	4.49E-02	4.59E-02	1.54E-01
2. Tritium						
H-3	Ci	1.36E+02	7.34E+01	3.75E+02	2.54E+02	8.37E+02
Totals for Period...	Ci	1.36E+02	7.34E+01	3.75E+02	2.54E+02	8.37E+02
3. Dissolved and Entrained Gases						
XE-135	Ci	0.00E+00	0.00E+00	6.22E-06	0.00E+00	6.22E-06
Totals for Period...	Ci	0.00E+00	0.00E+00	6.22E-06	0.00E+00	6.22E-06
4. Gross Alpha Radioactivity						
** No Nuclide Activities **		.....	.....	.....	.....	.....

McGUIRE NUCLEAR STATION

SUPPLEMENTAL INFORMATION

McGUIRE NUCLEAR STATION

2000 EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION

I. REGULATORY LIMITS - PER UNIT

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. 2.46E+02 = TOTAL NUMBER OF BATCH RELEASES
2. 2.81E+05 = TOTAL TIME (MIN.) FOR BATCH RELEASES.
3. 4.30E+04 = MAXIMUM TIME (MIN.) FOR A BATCH RELEASE.
4. 1.14E+03 = AVERAGE TIME (MIN.) FOR A BATCH RELEASE.
5. 1.60E+01 = MINIMUM TIME (MIN.) FOR A BATCH RELEASE.
6. 1.83E+06 = AVERAGE DILUTION WATER FLOW DURING RELEASES (GPM).

B. GASEOUS EFFLUENT

1. 4.10E+01 = TOTAL NUMBER OF BATCH RELEASES.
2. 1.05E+06 = TOTAL TIME (MIN.) FOR BATCH RELEASES.
3. 4.49E+04 = MAXIMUM TIME (MIN.) FOR A BATCH RELEASE.
4. 2.56E+04 = AVERAGE TIME (MIN.) FOR A BATCH RELEASE.
5. 4.80E+01 = MINIMUM TIME (MIN.) FOR A BATCH RELEASE.

VI. ABNORMAL RELEASES

A. LIQUID

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

B. GASEOUS

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

SUPPLEMENTAL REPORT PAGE 2

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:

ISOTOPE	ENERGY (Kev)	AVERAGE MDA
Liquid		
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
Gas		
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

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 ± 25.2%. 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 = ± 20%

(2) Counting error = ± 15%

(3) Sample preparation error = ± 3%

McGUIRE NUCLEAR STATION

Assessment of Radiation Dose from Radioactive Effluents to Members of the Public

(January 1, 2000 through December 31, 2000)

This attachment includes an assessment of radiation doses to the maximum exposed member of the public due to radioactive liquid and gaseous effluents released from the site for each calendar quarter for the calendar year of this report, as well as the total dose for the calendar year. This attachment also includes an assessment of radiation doses to the maximum exposed member of the public from all uranium fuel cycle sources within 10 miles of McGuire for the calendar year of this report to show conformance with 40 CFR 190. Methods for calculating the dose contribution from liquid and gaseous effluents are given in the ODCM.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

1st Quarter 2000

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Quarter 1 2000 ====

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q1 - Maximum Organ Dose	CHILD	LIVER	9.32E-02	1.50E+01	6.21E-01

Maximum Organ Dose Receptor Location: 0.5 Mile E
Critical Pathway: Vegetation

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

=== NOBLE GAS DOSE LIMIT ANALYSIS========================= Quarter 1 2000 ====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q1 - Maximum Gamma Air Dose	1.87E-02	1.00E+01	1.87E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.95E+01

Q1 - Maximum Beta Air Dose	6.73E-03	2.00E+01	3.37E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.73E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

2nd Quarter 2000

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Quarter 2 2000 ====

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q2 - Maximum Organ Dose	CHILD	LIVER	1.15E-01	1.50E+01	7.66E-01

Maximum Organ Dose Receptor Location: 0.5 Mile E
Critical Pathway: Vegetation

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

=== NOBLE GAS DOSE LIMIT ANALYSIS========== Quarter 2 2000 ====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q2 - Maximum Gamma Air Dose	2.73E-02	1.00E+01	2.73E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.95E+01

Q2 - Maximum Beta Air Dose	9.87E-03	2.00E+01	4.94E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.70E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

3rd Quarter 2000

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Quarter 3 2000 ====

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q3 - Maximum Organ Dose	CHILD	LUNG	1.67E-01	1.50E+01	1.11E+00

Maximum Organ Dose Receptor Location: 0.5 Mile E
Critical Pathway: Vegetation

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

=== NOBLE GAS DOSE LIMIT ANALYSIS========================= Quarter 3 2000 ====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q3 - Maximum Gamma Air Dose	1.74E-02	1.00E+01	1.74E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.93E+01

Q3 - Maximum Beta Air Dose	6.73E-03	2.00E+01	3.37E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.07E+01
KR-85	5.81E+00

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

4th Quarter 2000

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Quarter 4 2000 ====

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q4 - Maximum Organ Dose	CHILD	THYROID	1.75E-01	1.50E+01	1.17E+00

Maximum Organ Dose Receptor Location: 0.5 Mile E
Critical Pathway: Vegetation

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

=== NOBLE GAS DOSE LIMIT ANALYSIS========================= Quarter 4 2000 ====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q4 - Maximum Gamma Air Dose	2.04E-02	1.00E+01	2.04E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.97E+01

Q4 - Maximum Beta Air Dose	7.36E-03	2.00E+01	3.68E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.74E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

ANNUAL 2000

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Annual 2000 ========

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Yr - Maximum Organ Dose	CHILD	THYROID	5.50E-01	3.00E+01	1.83E+00

Maximum Organ Dose Receptor Location: 0.5 Mile E
Critical Pathway: Vegetation

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

=== NOBLE GAS DOSE LIMIT ANALYSIS========================= Annual 2000 ========

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Yr - Maximum Gamma Air Dose	8.38E-02	2.00E+01	4.19E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.95E+01

Yr - Maximum Beta Air Dose	3.07E-02	4.00E+01	7.67E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.58E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

1st Quarter 2000

=== BATCH LIQUID RELEASES ========== Quarter 1 2000 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q1 - Maximum Organ Dose	CHILD	GILLI	1.74E-02	1.00E+01	1.74E-01
Q1 - Total Body Dose	CHILD		1.69E-02	3.00E+00	5.63E-01

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	9.43E+01

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	9.74E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 1 2000 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q1 - Maximum Organ Dose	CHILD	LIVER	1.58E-04	1.00E+01	1.58E-03
Q1 - Total Body Dose	CHILD		1.58E-04	3.00E+00	5.27E-03

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

2nd Quarter 2000

=== BATCH LIQUID RELEASES ========== Quarter 2 2000 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q2 - Maximum Organ Dose	CHILD	LIVER	9.88E-03	1.00E+01	9.88E-02
Q2 - Total Body Dose	CHILD		8.20E-03	3.00E+00	2.73E-01

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	7.94E+01
CS-137	1.95E+01

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	9.56E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 2 2000 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q2 - Maximum Organ Dose	CHILD	LIVER	1.02E-04	1.00E+01	1.02E-03
Q2 - Total Body Dose	CHILD		1.02E-04	3.00E+00	3.40E-03

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

3rd Quarter 2000

=== BATCH LIQUID RELEASES ========== Quarter 3 2000 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q3 - Maximum Organ Dose	CHILD	LIVER	6.04E-02	1.00E+01	6.04E-01
Q3 - Total Body Dose	CHILD		4.78E-02	3.00E+00	1.59E+00

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	7.49E+01
CS-137	2.25E+01

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	9.46E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 3 2000 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q3 - Maximum Organ Dose	CHILD	LIVER	1.44E-03	1.00E+01	1.44E-02
Q3 - Total Body Dose	CHILD		1.44E-03	3.00E+00	4.79E-02

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

4th Quarter 2000

=== BATCH LIQUID RELEASES ========== Quarter 4 2000 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q4 - Maximum Organ Dose	CHILD	LIVER	4.50E-02	1.00E+01	4.50E-01
Q4 - Total Body Dose	ADULT		3.32E-02	3.00E+00	1.11E+00

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	6.35E+01
CS-137	3.23E+01

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	6.46E+01
CS-137	2.99E+01
CS-134	5.14E+00

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 4 2000 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q4 - Maximum Organ Dose	CHILD	LIVER	1.68E-04	1.00E+01	1.68E-03
Q4 - Total Body Dose	CHILD		1.68E-04	3.00E+00	5.60E-03

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/00 TO 1/1/01
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

ANNUAL 2000

=== BATCH LIQUID RELEASES ========== Annual 2000 =========

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Yr - Maximum Organ Dose	CHILD	LIVER	1.30E-01	2.00E+01	6.51E-01
Yr - Total Body Dose	CHILD		1.02E-01	6.00E+00	1.71E+00

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	7.39E+01
CS-137	2.32E+01

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	9.41E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Annual 2000 =========

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Yr - Maximum Organ Dose	CHILD	LIVER	1.80E-03	2.00E+01	9.01E-03
Yr - Total Body Dose	CHILD		1.80E-03	6.00E+00	3.00E-02

Maximum Organ
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

Total Body
Critical Pathway: Potable Water
Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
H-3	1.00E+02

McGUIRE NUCLEAR STATION

2000 METEOROLOGICAL JOINT FREQUENCY DISTRIBUTIONS

OF WIND SPEED, WIND DIRECTION, AND ATMOSPHERIC STABILITY

USING WINDS AT THE 10 METER LEVEL

(Hours of Occurrence)

10M WIND SPEED/DIRECTION/DELTA-T STABILITY
STABILITY CLASSES BASED ON DELTA-T BETWEEN UPPER-LOWER LEVELS

PASQUILL STABILITY A

	WIND SPEED CLASS									
	0.75-0.99	1.00-1.24	1.50-1.99	2.00-2.99	3.00-3.99	4.00-4.99	5.00-5.99	6.00-7.99	8.00-9.99	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR										
-N-	.	.	.	.	.	.	.	2	.	2
-NNE-	.	.	1	.	.	.	1	1	2	5
-NE-	.	.	.	1	3	.	.	.	.	4
-ENE-	.	.	.	.	.	3	.	.	.	3
-E-	.	.	.	.	3	.	.	.	.	3
-SE-	.	.	.	2	.	.	.	.	.	2
-SSE-	.	.	.	.	.	1	.	.	.	1
-SSW-	.	.	.	.	3	2	.	.	.	5
-SW-	.	.	.	1	1	3	5	1	.	11
-WSW-	.	.	.	1	1	.	2	.	.	4
-W-	1	.	.	.	1	.	.	.	.	2
-WNW-	.	.	.	.	.	1	.	.	.	1
-NW-	.	.	.	.	.	.	.	1	.	1
-NNW-	.	1	.	.	.	.	.	.	.	1
TOTAL	1	1	1	5	12	10	8	5	2	45

10M WIND SPEED/DIRECTION/DELTA-T STABILITY
STABILITY CLASSES BASED ON DELTA-T BETWEEN UPPER-LOWER LEVELS

PASQUILL STABILITY B

	WIND SPEED CLASS								
	1.25-1.49	1.50-1.99	2.00-2.99	3.00-3.99	4.00-4.99	5.00-5.99	6.00-7.99	8.00-9.99	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR									
-N-	1	1	1	.	.	.	4	5	12
-NNE-	.	.	5	.	.	.	3	.	8
-NE-	.	.	6	1	3	3	.	.	13
-ENE-	.	3	2	7	1	2	2	.	17
-E-	.	.	2	2	.	1	.	.	5
-SE-	.	.	1	.	.	.	.	.	1
-SSE-	.	.	.	1	1	.	.	.	2
-S-	.	1	7	1	1	1	.	.	11
-SSW-	.	.	1	3	8	2	.	.	14
-SW-	.	2	5	9	16	14	6	.	52
-WSW-	1	.	3	5	6	5	2	.	22
-W-	.	1	3	.	.	.	.	.	4
-WNW-	.	2	.	.	.	.	1	.	3
-NW-	.	.	.	.	.	.	.	1	1
-NNW-	1	5	.	2	.	.	2	1	11
TOTAL	3	15	36	31	36	28	20	7	176

MCGUIRE NUCLEAR STN. METEOROLOGY (2000) PROG=XOQFREQ 15:36 Friday, March 9, 2001

10M WIND SPEED/DIRECTION/DELTA-T STABILITY
STABILITY CLASSES BASED ON DELTA-T BETWEEN UPPER-LOWER LEVELS

PASQUILL STABILITY C

	WIND SPEED CLASS											
	0.75-0.99	1.00-1.24	1.25-1.49	1.50-1.99	2.00-2.99	3.00-3.99	4.00-4.99	5.00-5.99	6.00-7.99	8.00-9.99	>9.99 M/S	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR												
-N-	.	2	1	7	4	1	1	.	26	12	1	55
-NNE-	.	.	4	10	17	6	4	4	15	4	.	64
-NE-	.	.	.	3	9	8	17	7	5	.	.	49
-ENE-	.	.	.	7	10	8	7	1	.	.	.	33
-E-	.	.	.	2	5	1	2	.	.	.	.	10
-ESE-	.	.	.	.	2	4	.	1	.	1	.	8
-SE-	.	.	.	1	3	1	.	.	.	.	.	5
-SSE-	1	.	.	1	4	3	.	.	.	.	.	9
-S-	.	.	.	1	5	8	1	1	.	.	.	16
-SSW-	.	.	.	1	7	19	7	4	.	.	.	38
-SW-	.	1	1	.	12	16	36	23	9	1	.	99
-WSW-	.	.	.	2	9	18	11	10	3	1	.	54
-W-	1	.	1	4	8	1	2	2	.	.	.	19
-WNW-	.	.	1	1	2	.	1	2	5	.	.	12
-NW-	.	.	4	2	4	1	4	7	23	8	1	54
-NNW-	.	2	2	2	3	.	.	4	17	6	2	38
TOTAL	2	5	14	44	104	95	93	66	103	33	4	563

MCGUIRE NUCLEAR STN. METEOROLOGY (2000) PROG=XOQFREQ 15:36 Friday, March 9, 2001

10M WIND SPEED/DIRECTION/DELTA-T STABILITY
STABILITY CLASSES BASED ON DELTA-T BETWEEN UPPER-LOWER LEVELS

PASQUILL STABILITY D

	WIND SPEED CLASS												
	0.45-0.74	0.75-0.99	1.00-1.24	1.25-1.49	1.50-1.99	2.00-2.99	3.00-3.99	4.00-4.99	5.00-5.99	6.00-7.99	8.00-9.99	>9.99 M/S	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR													
-N-	1	4	9	18	52	58	62	48	40	41	11	1	345
-NNE-	.	1	6	27	51	95	118	93	66	49	4	.	510
-NE-	.	.	2	14	45	169	240	275	158	86	2	.	991
-ENE-	.	.	2	10	47	100	101	71	30	3	.	.	364
-E-	.	1	1	6	19	88	82	21	2	1	.	.	221
-ESE-	.	.	2	5	21	46	50	19	.	4	.	.	147
-SE-	.	2	2	10	22	83	25	4	3	.	.	.	151
-SSE-	.	1	3	9	46	44	9	.	.	.	.	.	112
-S-	.	2	5	14	37	74	30	6	3	3	.	.	174
-SSW-	.	2	2	14	24	132	130	30	19	4	.	.	357
-SW-	.	2	2	17	25	170	230	175	58	21	1	.	701
-WSW-	.	4	2	7	36	112	87	37	31	19	4	2	341
-W-	.	.	5	13	30	44	28	18	13	13	1	2	167
-WNW-	.	5	6	7	19	38	32	31	14	5	5	1	163
-NW-	.	1	6	6	14	36	38	51	32	35	11	3	233
-NNW-	.	.	5	18	25	49	42	47	50	40	8	3	287
TOTAL	1	25	60	195	513	1338	1304	926	519	324	47	12	5264

10M WIND SPEED/DIRECTION/DELTA-T STABILITY
STABILITY CLASSES BASED ON DELTA-T BETWEEN UPPER-LOWER LEVELS

PASQUILL STABILITY E

	WIND SPEED CLASS												
	0.45-0.74	0.75-0.99	1.00-1.24	1.25-1.49	1.50-1.99	2.00-2.99	3.00-3.99	4.00-4.99	5.00-5.99	6.00-7.99	8.00-9.99	>9.99 M/S	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR													
-N-	.	2	1	1	7	11	4	1	1	.	1	.	29
-NNE-	1	2	5	1	4	9	1	1	.	2	.	.	26
-NE-	.	.	1	2	4	6	.	.	.	.	.	.	13
-ENE-	.	1	.	4	5	7	5	.	1	.	.	.	23
-E-	.	2	4	3	4	5	6	.	.	.	.	.	24
-ESE-	.	2	3	5	12	5	1	1	.	.	.	.	29
-SE-	.	2	8	7	21	31	7	2	.	.	.	.	78
-SSE-	.	7	9	15	49	29	5	.	.	.	.	.	114
-S-	3	6	10	16	50	89	10	4	.	.	.	.	188
-SSW-	1	8	7	13	37	138	45	1	1	.	.	.	251
-SW-	1	6	10	15	34	123	96	28	2	1	.	.	316
-WSW-	1	9	4	17	29	70	19	3	5	2	.	.	159
-W-	.	3	7	11	15	22	8	3	1	.	.	.	70
-WNW-	3	2	1	10	17	15	12	9	1	.	2	1	73
-NW-	2	3	.	3	7	20	9	9	.	3	1	2	59
-NNW-	.	2	3	3	6	9	8	6	3	1	.	.	41
-CALM-	1	.	.	.	.	.	.	.	.	.	.	.	1
TOTAL	13	57	73	126	301	589	236	68	15	9	4	3	1494

MCGUIRE NUCLEAR STN. METEOROLOGY (2000) PROG=XOQFREQ 15:36 Friday, March 9, 2001

10M WIND SPEED/DIRECTION/DELTA-T STABILITY
STABILITY CLASSES BASED ON DELTA-T BETWEEN UPPER-LOWER LEVELS

PASQUILL STABILITY F

	WIND SPEED CLASS										
	0.45-0.74	0.75-0.99	1.00-1.24	1.25-1.49	1.50-1.99	2.00-2.99	3.00-3.99	4.00-4.99	5.00-5.99	6.00-7.99	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR											
-N-	.	2	.	2	.	.	1	.	.	.	5
-NNE-	1	2	.	.	2	.	.	.	.	.	5
-NE-	.	.	.	.	1	.	.	.	.	.	1
-ESE-	.	1	.	1	1	.	.	.	.	.	3
-SE-	.	5	7	5	4	7	3	.	.	.	31
-SSE-	2	6	6	7	15	5	.	.	.	.	41
-S-	5	7	12	10	40	41	.	.	.	.	115
-SSW-	6	11	16	29	43	26	3	.	.	.	134
-SW-	3	10	14	20	19	32	5	.	.	1	104
-WSW-	4	7	16	13	22	21	5	.	.	.	88
-W-	1	3	6	11	11	8	1	1	.	.	42
-WNW-	.	1	6	2	7	6	1	.	.	.	23
-NW-	1	4	1	1	3	5	.	.	.	.	15
-NNW-	.	1	1	2	3	2	1	.	1	1	12
TOTAL	23	60	85	103	171	153	20	1	1	2	619

MCGUIRE NUCLEAR STN. METEOROLOGY (2000) PROG=XOQFREQ 15:36 Friday, March 9, 2001

10M WIND SPEED/DIRECTION/DELTA-T STABILITY
STABILITY CLASSES BASED ON DELTA-T BETWEEN UPPER-LOWER LEVELS

PASQUILL STABILITY G

	WIND SPEED CLASS								
	0.45-0.74	0.75-0.99	1.00-1.24	1.25-1.49	1.50-1.99	2.00-2.99	3.00-3.99	4.00-4.99	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR									
-N-	2	.	.	.	.	.	.	.	2
-NNE-	1	1	.	.	.	.	.	.	2
-NE-	.	.	.	.	1	.	.	.	1
-E-	.	1	.	.	.	.	.	.	1
-SSE-	3	2	1	3	.	.	.	.	9
-S-	7	7	5	8	16	5	.	.	48
-SSW-	18	27	24	23	16	7	.	.	115
-SW-	11	40	16	9	9	7	.	.	92
-WSW-	8	19	13	4	7	7	1	.	59
-W-	4	7	6	5	2	.	.	.	24
-WNW-	3	4	1	4	2	.	.	.	14
-NW-	1	1	1	2	.	.	.	1	6
-NNW-	.	.	.	1	.	.	.	.	1
-CALM-	1	.	.	.	.	.	.	.	1
TOTAL	59	109	67	59	53	26	1	1	375

MCGUIRE NUCLEAR STN. METEOROLOGY (2000) PROG=XOQFREQ 15:36 Friday, March 9, 2001

10M WIND SPEED/DIRECTION/DELTA-T STABILITY
STABILITY CLASSES BASED ON DELTA-T BETWEEN UPPER-LOWER LEVELS

ALL STABILITY CLASSES

	WIND SPEED CLASS												
	0.45-0.74	0.75-0.99	1.00-1.24	1.25-1.49	1.50-1.99	2.00-2.99	3.00-3.99	4.00-4.99	5.00-5.99	6.00-7.99	8.00-9.99	>9.99 M/S	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR													
-N-	3	8	12	23	67	74	68	50	41	73	29	2	450
-NNE-	3	6	11	32	68	126	125	98	71	70	10	.	620
-NE-	.	.	3	16	54	191	252	295	168	91	2	.	1072
-ENE-	.	1	2	14	62	119	121	82	34	5	.	.	440
-E-	.	4	5	9	25	100	94	23	3	1	.	.	264
-ESE-	.	3	5	11	34	53	55	20	1	4	1	.	187
-SE-	.	9	17	22	48	127	36	6	3	.	.	.	268
-SSE-	5	17	19	34	111	82	18	2	.	.	.	.	288
-S-	15	22	32	48	145	221	49	12	5	3	.	.	552
-SSW-	25	48	49	79	121	311	203	48	26	4	.	.	914
-SW-	15	58	43	62	89	350	357	258	102	39	2	.	1375
-WSW-	13	39	35	42	96	223	136	57	53	26	5	2	727
-W-	5	15	24	41	63	85	39	24	16	13	1	2	328
-WNW-	6	12	14	24	48	61	45	42	17	11	7	2	289
-NW-	4	9	8	16	26	65	48	65	39	62	21	6	369
-NNW-	.	3	12	27	41	63	53	53	58	61	15	5	391
-CALM-	2	.	.	.	.	.	.	.	.	.	.	.	2
TOTAL	96	254	291	500	1098	2251	1699	1135	637	463	93	19	8536

Attachment 2

Solid Waste Disposal Report

MCGUIRE NUCLEAR SITE
SUMMARY OF MAJOR RADIONUCLIDE COMPOSITION

Type of waste	Nuclide	% Abundance
1. Waste from liquid systems:		
A. Dewatered Secondary Powdex	Co-60	42.7
	Cs-137	3.13
	Cs-134	54.4
	C-14	<LLD
	I-129	<LLD
	Tc-99	<LLD
B. Dewatered Secondary Bead Resin	None shipped to a disposal facility this report period.	
C. Dewatered Radwaste System Resin	None shipped to a disposal facility this report period.	
D. Dewatered Primary Bead Resin	None shipped to a disposal facility this report period.	
E. Dewatered Cartridge Filters	None shipped to disposal facility this report period.	
F. Solidified Waste	None shipped to a disposal facility this report period.	
2. Dry Solid Waste:		
A. Dry Active Waste (00-07)	Cr-51	6.17
	Mn-54	1.83
	Co-58	9.18
	Co-60	7.75
	Cs-137	0.09
	Fe-55	66.75
	Fe-59	1.07
	Ni-63	5.30
	H-3	1.26
	C-14	<LLD
	I-129	<LLD
	Zr-95	0.59
	Tc-99	<LLD

A. Dry Active Waste (00-09)	Mn-54	0.49
	Co-57	0.01
	Co-58	0.04
	Co-60	24.88
	Cs-137	1.09
	Cs-134	0.09
	Fe-55	50.35
	Fe-59	0.63
	Ni-63	18.75
	H-3	2.87
	C-14	0.12
	I-129	<LLD
	Ru-106	0.03
	Sb-125	0.47
	Ag-110m	0.07
	Sr-90	0.02
	Tc-99	<LLD
	Pu-241	0.09
A. Dry Active Waste (00-11)	Mn-54	0.27
	Co-60	26.03
	Cs-137	0.13
	Cs-134	0.01
	Fe-55	49.87
	Ni-63	16.55
	H-3	6.69
	C-14	0.07
	I-129	<LLD
	Ru-106	0.01
	Sb-125	0.03
	Sr-90	0.06
	Tc-99	<LLD
A. Dry Active Waste (00-12)	Mn-54	0.81
	Co-57	0.01
	Co-58	0.08
	Co-60	17.76
	Cs-137	1.99
	Cs-134	0.11
	Fe-55	52.41
	Ni-63	18.69
	H-3	6.67
	C-14	<LLD
	I-129	<LLD
	Sb-125	1.27
	Ag-110m	0.20
	Tc-99	<LLD

A. Dry Active Waste (00-15)	Cr-51	18.84
	Mn-54	1.59
	Co-58	12.83
	Co-60	5.98
	Cs-137	0.07
	Fe-55	52.78
	Fe-59	2.08
	Ni-63	4.01
	H-3	0.96
	C-14	<LLD
	I-129	<LLD
	Zr-95	0.88
	Tc-99	<LLD
A. Dry Active Waste (00-30)	Cr-51	13.71
	Mn-54	1.70
	Co-58	12.20
	Co-60	6.57
	Cs-137	0.08
	Fe-55	57.67
	Fe-59	1.79
	Ni-63	4.42
	H-3	1.05
	C-14	<LLD
	I-129	<LLD
	Zr-95	0.82
	Tc-99	<LLD
A. Dry Active Waste (00-31)	Cr-51	24.67
	Mn-54	1.46
	Co-58	13.44
	Co-60	5.30
	Cs-137	0.06
	Fe-55	47.37
	Fe-59	2.38
	Ni-63	3.54
	H-3	0.96
	C-14	<LLD
	I-129	<LLD
	Zr-95	0.93
	Tc-99	<LLD
H. Sealed Sources	None shipped to a disposal facility this report period.	
I. Sealed Sources/Smoke Detectors	None shipped to a disposal facility this report period.	
J. Irradiated Components	None shipped to a disposal facility this report period.	

REPORT PERIOD
JANUARY - DECEMBER 2000

McGUIRE NUCLEAR STATION
SOLID RADIOACTIVE WASTE SHIPPED TO A DISPOSAL FACILITY

Attachment 1

TYPES OF WASTES SHIPPED Waste from Liquid Systems	Number of Shipments	Number of Containers	Container Type	Disposal Volume ft^3	m^3	Waste Class	Total Curies
(A) dewatered powdex resin (brokered)	none						
(B) dewatered powdex resin	1	3	STC (14-195 liner)	540	15.29	A/U	1.96E-04
(C) dewatered bead resin (brokered)	none						
(D) dewatered bead resin	none						
(E) dewatered radwaste system resin	none						
(F) dewatered primary bead resin	none						
(G) dewatered mechanical filter media	none						
(H) dewatered mechanical filter media (brokered)	none						
(I) solidified waste	none						
Dry Solid Waste							
(A) dry active waste (compacted)	none						
dry active waste (non-compacted)	none						
dry active waste (brokered/compacted)	4	8	STC	292.035	8.27	A/U	1.783E-01
dry active waste (brokered/non-compacted)	3	27	STC	819.46	23.21	A/U	4.789E+00
(B) sealed sources/smoke detectors	none						
(C) sealed sources	none						
(D) irradiated components	none						
Totals	**8**	**38**		**1651.495**	**46.77**		**4.967E+00**

3/20/01

Attachment 3

Unplanned Releases

McGUIRE NUCLEAR STATION

UNPLANNED RELEASES

(January 1, 2000 through December 31, 2000)

There were no unplanned liquid or gaseous radioactivity releases to the environment in 2000.

Attachment 4

Fuel Cycle Calculation

McGuire Nuclear Station
2000 Radioactive Effluent Releases
40CFR190 Uranium Fuel Cycle Dose* Calculation Results

Maximum Total Body Dose = 6.53E-01 mrem

Maximum Location: 0.5 Mile, East Sector
Critical Age = Child

Liquid and Gas Effluent Contribution to Maximum Total Body Dose

Liquid Effluent Dose = 1.03E-01 mrem = 16% of total

Critical Path = Potable Water
Major Contributor = H-3 (94.1%)

Gas Effluent Dose = 5.50E-01 mrem = 84% of total

Critical Path = Vegetation
Major Contributor = H-3 (100.0%)

Maximum Organ Dose = 6.80E-01 mrem

Maximum Location: 0.5 Mile, East Sector
Critical Age = Child
Critical Organ = Liver

Liquid and Gas Effluent Contribution to Maximum Organ Dose

Liquid Effluent Dose = 1.30E-01 mrem = 19% of total

Critical Path = Potable Water
Major Contributors = H-3 (73.9%)
CS-137 (23.2%)

Gas Effluent Dose = 5.50E-01 mrem = 81% of total

Critical Path = Vegetation
Major Contributor = H-3 (100.0%)

* Annual dose limits from 40CFR190.10(a) of 25 mrem whole body, 75 mrem to the thyroid, and 25 mrem to any other organ.

Attachment 5

Inoperable Monitoring Equipment

McGuire Nuclear Station

Inoperable Monitoring Equipment

(January 1, 2000 through December 31, 2000)

There were no SLC related effluent monitoring instruments out of service greater than the SLC limits for operability.