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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 and Section 16.11-17 of the McGuire Selected Licensee Commitments Manual (SLC), attached is the Annual Radioactive Effluent Release Report. CD-Roms are attached containing the 2004 Offsite Dose Calculation Manual and the 2004 Radioactive Waste Process Control Program Manual.

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

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

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IE48
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Attachment 1

Radioactive Effluent Releases and Supplemental Information

McGUIRE NUCLEAR STATION

EFFLUENT RELEASE DATA

(January 1, 2003 through December 31, 2003)

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 1/1/03 TO 1/1/04
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2003	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
A. Fission and Activation Gases						
1. Total Release	Ci	9.43E-01	2.23E+00	1.42E+00	1.79E+00	6.38E+00
2. Avg. Release Rate	µCi/sec	1.21E-01	2.84E-01	1.78E-01	2.25E-01	2.02E-01
B. Iodine-131						
1. Total Release	Ci	0.00E+00	0.00E+00	4.25E-07	0.00E+00	4.25E-07
2. Avg. Release Rate	µCi/sec	0.00E+00	0.00E+00	5.34E-08	0.00E+00	1.35E-08
C. Particulates Half Life >= 8 days						
1. Total Release	Ci	0.00E+00	0.00E+00	8.03E-06	7.37E-06	1.54E-05
2. Avg. Release Rate	µCi/sec	0.00E+00	0.00E+00	1.01E-06	9.28E-07	4.88E-07
D. Tritium						
1. Total Release	Ci	3.68E+01	3.92E+01	8.61E+01	1.00E+02	2.62E+02
2. Avg. Release Rate	µCi/sec	4.73E+00	4.99E+00	1.08E+01	1.26E+01	8.31E+00

TABLE 1B

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
GASEOUS EFFLUENTS - ELEVATED RELEASES - CONTINUOUS MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2003	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 1/1/03 TO 1/1/04
GASEOUS EFFLUENTS - ELEVATED RELEASES - BATCH MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2003	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 1/1/03 TO 1/1/04
GASEOUS EFFLUENTS - GROUND RELEASES - CONTINUOUS MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2003	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
** No Nuclide Activities **		.....	.....	.....	.....	.....
2. Iodines						
I-131	Ci	0.00E+00	0.00E+00	4.25E-07	0.00E+00	4.25E-07
Totals for Period...	Ci	0.00E+00	0.00E+00	4.25E-07	0.00E+00	4.25E-07
3. Particulates Half Life >= 8 days						
CO-58	Ci	0.00E+00	0.00E+00	8.03E-06	7.37E-06	1.54E-05
Totals for Period...	Ci	0.00E+00	0.00E+00	8.03E-06	7.37E-06	1.54E-05
4. Tritium						
H-3	Ci	3.64E+01	3.86E+01	8.40E+01	9.94E+01	2.58E+02
Totals for Period...	Ci	3.64E+01	3.86E+01	8.40E+01	9.94E+01	2.58E+02

TABLE 1C

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
GASEOUS EFFLUENTS - GROUND RELEASES - BATCH MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2003	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
AR-41	Ci	7.09E-01	7.79E-01	7.80E-01	7.82E-01	3.05E+00
C-11	Ci	0.00E+00	0.00E+00	0.00E+00	6.17E-04	6.17E-04
KR-85	Ci	0.00E+00	2.72E-01	0.00E+00	9.12E-01	1.18E+00
KR-85M	Ci	0.00E+00	6.14E-04	0.00E+00	0.00E+00	6.14E-04
KR-87	Ci	0.00E+00	1.66E-04	0.00E+00	0.00E+00	1.66E-04
KR-88	Ci	0.00E+00	7.20E-04	0.00E+00	0.00E+00	7.20E-04
XE-131M	Ci	0.00E+00	8.01E-03	0.00E+00	0.00E+00	8.01E-03
XE-133	Ci	2.29E-01	1.06E+00	6.27E-01	9.29E-02	2.01E+00
XE-133M	Ci	0.00E+00	5.45E-03	0.00E+00	0.00E+00	5.45E-03
XE-135	Ci	5.03E-03	1.04E-01	1.24E-02	3.45E-03	1.25E-01
Totals for Period...	Ci	9.43E-01	2.23E+00	1.42E+00	1.79E+00	6.38E+00
2. Iodines						
** No Nuclide Activities **		.....	.....	.....	.....	.....
3. Particulates Half Life >= 8 days						
** No Nuclide Activities **		.....	.....	.....	.....	.....
4. Tritium						
H-3	Ci	3.62E-01	5.69E-01	2.11E+00	5.78E-01	3.62E+00
Totals for Period...	Ci	3.62E-01	5.69E-01	2.11E+00	5.78E-01	3.62E+00

TABLE 2A

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2003	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
A. Fission and Activation Products						
1. Total Release	Ci	1.15E-02	7.86E-03	1.39E-02	1.57E-02	4.89E-02
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	1.35E-11	8.25E-12	1.54E-11	1.57E-11	1.32E-11
B. Tritium						
1. Total Release	Ci	1.93E+02	1.63E+02	1.77E+02	1.60E+02	6.93E+02
2. Average Diluted Concentration						
a. Continuous Releases	µCi/ml	6.39E-09	2.86E-09	2.24E-08	5.52E-09	9.15E-09
b. Batch Releases	µCi/ml	2.26E-07	1.70E-07	1.94E-07	1.60E-07	1.86E-07
C. Dissolved and Entrained Gases						
1. Total Release	Ci	0.00E+00	0.00E+00	6.49E-06	0.00E+00	6.49E-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	7.19E-15	0.00E+00	1.75E-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	4.92E+07	4.91E+07	6.24E+07	5.27E+07	2.13E+08
2. Batch Releases	liters	6.44E+05	6.80E+05	2.00E+07	1.47E+06	2.28E+07
F. Volume of Dilution Water						
1. Continuous Releases	liters	8.52E+10	9.52E+10	9.03E+10	9.98E+10	3.71E+11
2. Batch Releases	liters	8.52E+11	9.52E+11	9.03E+11	9.98E+11	3.71E+12

TABLE 2B

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
LIQUID EFFLUENTS - CONTINUOUS MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2003	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Products						
** No Nuclide Activities **		.....	.....	.....	.....	.....
2. Tritium						
H-3	Ci	5.45E-01	2.73E-01	2.02E+00	5.51E-01	3.39E+00
Totals for Period...	Ci	5.45E-01	2.73E-01	2.02E+00	5.51E-01	3.39E+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 1/1/03 TO 1/1/04
LIQUID EFFLUENTS - BATCH MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 2003	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Products						
AG-110M	Ci	5.68E-05	3.11E-05	0.00E+00	2.32E-04	3.20E-04
CO-57	Ci	5.23E-05	5.42E-05	1.94E-06	3.28E-05	1.41E-04
CO-58	Ci	9.10E-03	3.77E-03	7.36E-03	1.15E-02	3.18E-02
CO-60	Ci	7.00E-04	9.01E-04	8.22E-04	8.28E-04	3.25E-03
CR-51	Ci	0.00E+00	0.00E+00	1.68E-03	1.60E-03	3.28E-03
CS-134	Ci	4.52E-05	0.00E+00	2.69E-06	0.00E+00	4.79E-05
CS-137	Ci	9.57E-04	9.52E-05	3.21E-04	2.14E-04	1.59E-03
FE-59	Ci	0.00E+00	0.00E+00	8.50E-05	2.01E-04	2.86E-04
K-40	Ci	0.00E+00	0.00E+00	6.08E-05	0.00E+00	6.08E-05
MN-54	Ci	3.01E-05	1.73E-05	1.58E-04	1.25E-04	3.30E-04
NB-95	Ci	2.39E-06	2.14E-06	6.74E-05	7.16E-05	1.44E-04
NB-97	Ci	2.09E-06	0.00E+00	1.96E-06	1.77E-05	2.18E-05
SB-124	Ci	0.00E+00	0.00E+00	2.42E-06	0.00E+00	2.42E-06
SB-125	Ci	5.28E-04	2.99E-03	3.32E-03	7.95E-04	7.63E-03
ZR-95	Ci	0.00E+00	0.00E+00	3.33E-05	4.79E-05	8.12E-05
Totals for Period...	Ci	1.15E-02	7.86E-03	1.39E-02	1.57E-02	4.90E-02
2. Tritium						
H-3	Ci	1.93E+02	1.62E+02	1.75E+02	1.60E+02	6.90E+02
Totals for Period...	Ci	1.93E+02	1.62E+02	1.75E+02	1.60E+02	6.90E+02
3. Dissolved and Entrained Gases						
XE-133	Ci	0.00E+00	0.00E+00	6.49E-06	0.00E+00	6.49E-06
Totals for Period...	Ci	0.00E+00	0.00E+00	6.49E-06	0.00E+00	6.49E-06
4. Gross Alpha Radioactivity						
** No Nuclide Activities **		.....	.....	.....	.....	.....

McGUIRE NUCLEAR STATION

SUPPLEMENTAL INFORMATION

McGUIRE NUCLEAR STATION

2003 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. 1.86E+02 = TOTAL NUMBER OF BATCH RELEASES
2. 3.10E+04 = TOTAL TIME (MIN.) FOR BATCH RELEASES.
3. 1.56E+04 = MAXIMUM TIME (MIN.) FOR A BATCH RELEASE.
4. 1.67E+02 = AVERAGE TIME (MIN.) FOR A BATCH RELEASE.
5. 3.00E+00 = MINIMUM TIME (MIN.) FOR A BATCH RELEASE.
6. 1.86E+06 = AVERAGE DILUTION WATER FLOW DURING RELEASES (GPM).

B. GASEOUS EFFLUENT

1. 5.40E+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. 1.94E+04 = AVERAGE TIME (MIN.) FOR A BATCH RELEASE.
5. 6.00E+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 = 3
2. TOTAL ACTIVITY RELEASED (CURIES) = 9.00E-01 (See attachments for additional information)

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, 2003 through December 31, 2003)

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 1/1/03 TO 1/1/04
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

1st Quarter 2003

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Quarter 1 2003 ====

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q1 - Maximum Organ Dose	CHILD	LIVER	1.04E-01	1.50E+01	6.94E-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 2003 ====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q1 - Maximum Gamma Air Dose	1.61E-02	1.00E+01	1.61E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.86E+01

Q1 - Maximum Beta Air Dose	6.22E-03	2.00E+01	3.11E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.02E+01
XE-133	9.32E+00

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

2nd Quarter 2003

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Quarter 2 2003 ====

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q2 - Maximum Organ Dose	CHILD	LIVER	1.11E-01	1.50E+01	7.41E-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 2003 ====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q2 - Maximum Gamma Air Dose	1.89E-02	1.00E+01	1.89E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.24E+01

Q2 - Maximum Beta Air Dose	1.08E-02	2.00E+01	5.40E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	5.71E+01
XE-133	2.49E+01
KR-85	1.18E+01
XE-135	5.72E+00

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

3rd Quarter 2003

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Quarter 3 2003 ====

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q3 - Maximum Organ Dose	CHILD	THYROID	2.44E-01	1.50E+01	1.63E+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 2003 ====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q3 - Maximum Gamma Air Dose	1.81E-02	1.00E+01	1.81E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.67E+01

Q3 - Maximum Beta Air Dose	7.83E-03	2.00E+01	3.92E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	7.88E+01
XE-133	2.03E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

4th Quarter 2003

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Quarter 4 2003 ====

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q4 - Maximum Organ Dose	CHILD	LUNG	2.83E-01	1.50E+01	1.89E+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 2003 ====

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Q4 - Maximum Gamma Air Dose	1.77E-02	1.00E+01	1.77E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.92E+01

Q4 - Maximum Beta Air Dose	1.07E-02	2.00E+01	5.37E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	5.77E+01
KR-85	3.99E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
GASEOUS ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

ANNUAL 2003

=== IODINE, H3, AND PARTICULATE DOSE LIMIT ANALYSIS======= Annual 2003 ========

Period-Limit	Critical Group	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Yr - Maximum Organ Dose	CHILD	THYROID	7.43E-01	3.00E+01	2.48E+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 2003 ========

Period-Limit	Dose (mrad)	Limit (mrad)	% of Limit
Yr - Maximum Gamma Air Dose	7.08E-02	2.00E+01	3.54E-01

Maximum Gamma Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	9.66E+01

Yr - Maximum Beta Air Dose	3.56E-02	4.00E+01	8.90E-02

Maximum Beta Air Dose Receptor Location: 0.5 Mile NNE

Major Isotopic Contributors (5% or greater to total)

Nuclide	Percentage
AR-41	6.78E+01
KR-85	1.56E+01
XE-133	1.43E+01

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/03 TO 1/1/04
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

1st Quarter 2003

=== BATCH LIQUID RELEASES ========== Quarter 1 2003 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q1 - Maximum Organ Dose	CHILD	LIVER	2.86E-02	1.00E+01	2.86E-01
Q1 - Total Body Dose	CHILD		2.42E-02	3.00E+00	8.07E-01

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

Nuclide	Percentage
H-3	8.16E+01
CS-137	1.73E+01

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

Nuclide	Percentage
H-3	9.64E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 1 2003 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q1 - Maximum Organ Dose	CHILD	LIVER	6.59E-04	1.00E+01	6.59E-03
Q1 - Total Body Dose	CHILD		6.59E-04	3.00E+00	2.20E-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 1/1/03 TO 1/1/04
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

2nd Quarter 2003

=== BATCH LIQUID RELEASES ========== Quarter 2 2003 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q2 - Maximum Organ Dose	CHILD	LIVER	1.83E-02	1.00E+01	1.83E-01
Q2 - Total Body Dose	CHILD		1.79E-02	3.00E+00	5.96E-01

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

Nuclide	Percentage
H-3	9.74E+01

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

Nuclide	Percentage
H-3	9.94E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 2 2003 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q2 - Maximum Organ Dose	CHILD	LIVER	2.99E-04	1.00E+01	2.99E-03
Q2 - Total Body Dose	CHILD		2.99E-04	3.00E+00	9.96E-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 1/1/03 TO 1/1/04
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

3rd Quarter 2003

=== BATCH LIQUID RELEASES ========== Quarter 3 2003 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q3 - Maximum Organ Dose	CHILD	LIVER	2.22E-02	1.00E+01	2.22E-01
Q3 - Total Body Dose	CHILD		2.08E-02	3.00E+00	6.94E-01

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

Nuclide	Percentage
H-3	9.25E+01
CS-137	7.23E+00

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

Nuclide	Percentage
H-3	9.85E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 3 2003 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q3 - Maximum Organ Dose	CHILD	LIVER	2.36E-03	1.00E+01	2.36E-02
Q3 - Total Body Dose	CHILD		2.36E-03	3.00E+00	7.87E-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 1/1/03 TO 1/1/04
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

4th Quarter 2003

=== BATCH LIQUID RELEASES ========== Quarter 4 2003 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q4 - Maximum Organ Dose	CHILD	LIVER	1.79E-02	1.00E+01	1.79E-01
Q4 - Total Body Dose	CHILD		1.71E-02	3.00E+00	5.70E-01

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

Nuclide	Percentage
H-3	9.43E+01
CS-137	5.41E+00

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

Nuclide	Percentage
H-3	9.87E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 4 2003 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q4 - Maximum Organ Dose	CHILD	LIVER	5.82E-04	1.00E+01	5.82E-03
Q4 - Total Body Dose	CHILD		5.82E-04	3.00E+00	1.94E-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 1/1/03 TO 1/1/04
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

ANNUAL 2003

=== BATCH LIQUID RELEASES ========== Annual 2003 =========

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Yr - Maximum Organ Dose	CHILD	LIVER	8.60E-02	2.00E+01	4.30E-01
Yr - Total Body Dose	CHILD		7.94E-02	6.00E+00	1.32E+00

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

Nuclide	Percentage
H-3	9.06E+01
CS-137	8.91E+00

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

Nuclide	Percentage
H-3	9.82E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Annual 2003 =========

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Yr - Maximum Organ Dose	CHILD	LIVER	3.83E-03	2.00E+01	1.91E-02
Yr - Total Body Dose	CHILD		3.83E-03	6.00E+00	6.38E-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

2003 METEOROLOGICAL JOINT FREQUENCY DISTRIBUTIONS

OF WIND SPEED, WIND DIRECTION, AND ATMOSPHERIC STABILITY

USING WINDS AT THE 10 METER LEVEL

(Hours of Occurrence)

McGuire NUCLEAR STN. METEOROLOGY (2003) PROG=XOQFREQ 15:09 Thursday, February 12, 2004 1
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	1.25-1.49	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-	1	1	.	.	.	.	.	.	.	3	2	7
-NNE-	.	.	.	1	1	2	3	2	4	3	.	16
-NE-	.	.	.	1	3	6	18	12	4	.	.	44
-ENE-	.	.	2	1	3	3	.	2	1	.	.	12
-E-	.	.	.	.	1	3	11	2	.	.	.	17
-ESE-	.	.	.	.	.	2	3	2	3	.	.	10
-SE-	.	.	.	2	2	4	.	.	.	.	.	8
-SSE-	.	.	.	1	1	.	.	.	.	.	.	2
-S-	.	.	.	.	1	1	1	.	.	.	.	3
-SSW-	.	.	.	.	.	1	1	.	.	.	.	2
-SW-	.	.	1	.	.	7	4	2	.	.	.	14
-WSW-	.	.	.	.	1	1	1	1	.	.	.	4
-W-	.	.	.	.	.	1	1	1	.	.	.	3
-WNW-	.	.	.	.	.	.	.	.	1	.	.	1
-NNW-	.	.	.	.	.	1	1	.	.	1	.	3
TOTAL	1	1	3	6	13	32	44	24	13	7	2	146

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	>9.99 M/S	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR										
-N-	.	.	1	1	.	.	1	2	1	6
-NNE-	1	.	1	1	1	1	.	4	.	9
-NE-	.	1	1	8	20	9	6	.	.	45
-ENE-	1	1	5	11	3	2	.	.	.	23
-E-	.	1	3	8	1	3	.	.	.	16
-ESE-	.	.	6	2	2	.	1	.	.	11
-SE-	.	.	.	1	.	.	.	.	.	1
-SSE-	.	.	2	2	.	.	.	.	.	4
-S-	.	.	2	1	1	.	.	.	.	4
-SSW-	.	1	3	8	3	2	.	.	.	17
-SW-	.	2	2	13	15	5	4	.	.	41
-WSW-	.	.	1	4	6	1	.	.	.	12
-W-	.	.	.	.	1	1	.	.	.	2
-WNW-	2	.	.	.	.	1	2	2	.	7
-NW-	1	.	.	.	.	.	.	1	2	4
-NNW-	1	.	.	.	1	.	5	4	1	12
TOTAL	6	6	27	60	54	25	19	13	4	214

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	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR											
-N-	.	1	3	5	2	1	3	11	15	4	45
-NNE-	.	.	3	5	11	9	10	12	8	10	68
-NE-	.	.	.	15	20	29	45	25	8	.	142
-ENE-	.	.	3	6	14	17	8	5	2	.	55
-E-	.	.	.	4	12	4	2	.	.	.	22
-ESE-	.	.	1	1	7	3	2	.	1	.	15
-SE-	.	.	.	1	4	4	1	.	.	.	10
-SSE-	.	.	1	2	3	4	1	.	1	.	12
-S-	.	.	.	4	9	13	7	.	.	.	33
-SSW-	.	.	.	5	23	33	6	4	.	.	71
-SW-	.	.	1	3	29	39	39	11	5	.	127
-WSW-	.	.	3	4	25	31	12	5	8	.	88
-W-	.	1	2	5	8	4	4	2	.	.	26
-WNW-	1	1	2	4	5	2	.	4	5	6	30
-NW-	.	.	2	3	.	1	1	5	17	6	35
-NNW-	.	2	3	3	.	1	.	7	20	5	41
TOTAL	1	5	24	70	172	195	141	91	90	31	820

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	3	12	18	34	60	44	34	28	25	5	.	264
-NNE-	1	5	5	18	47	101	89	58	31	17	2	.	374
-NE-	.	1	5	13	47	164	216	242	99	19	.	.	806
-ENE-	.	3	2	10	40	95	123	74	29	6	.	.	382
-E-	.	1	5	8	29	87	76	25	6	2	.	.	239
-ESE-	.	1	2	6	17	64	52	7	.	.	.	.	149
-SE-	.	2	2	8	37	92	32	13	1	.	.	.	187
-SSE-	.	1	6	15	54	51	13	8	2	.	.	.	150
-S-	.	1	7	17	38	62	23	6	3	.	.	.	157
-SSW-	.	1	5	13	28	126	99	26	6	5	.	.	309
-SW-	.	.	6	16	32	217	271	145	54	16	.	.	757
-WSW-	.	2	7	13	52	124	69	51	43	24	1	1	387
-W-	.	3	5	11	26	54	47	33	13	5	1	.	198
-WNW-	1	4	7	18	24	44	42	37	21	30	2	5	235
-NW-	1	1	5	4	13	47	50	60	46	49	18	1	295
-NNW-	1	2	11	12	30	21	37	48	43	45	11	1	262
TOTAL	5	31	92	200	548	1409	1283	867	425	243	40	8	5151

McGuire NUCLEAR STN. METEOROLOGY (2003) PROG=XOQFREQ 15:09 Thursday, February 12, 2004 5
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	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR												
-N-	.	4	4	5	13	9	5	1	.	.	.	41
-NNE-	1	1	1	2	9	9	6	.	.	.	.	29
-NE-	.	.	3	2	7	4	1	3	3	.	.	23
-ENE-	1	.	.	4	2	5	.	1	.	.	.	13
-E-	.	.	2	1	4	2	4	2	.	.	.	15
-ESE-	1	2	6	2	7	12	.	.	.	.	.	30
-SE-	3	2	8	5	13	32	14	.	.	.	.	77
-SSE-	2	4	10	23	43	37	1	.	.	.	.	120
-S-	2	7	13	21	37	69	4	3	.	5	.	161
-SSW-	2	5	5	18	46	116	19	.	.	.	.	211
-SW-	4	4	12	5	43	169	87	35	2	.	.	361
-WSW-	.	2	15	15	53	60	32	14	4	2	1	198
-W-	1	5	3	10	26	25	20	3	2	2	.	97
-WNW-	1	.	2	8	10	16	15	10	1	1	1	65
-NW-	1	3	1	4	14	18	17	15	3	1	2	79
-NNW-	.	2	3	4	5	7	5	4	1	.	.	31
-CALM-	1	.	.	.	.	.	.	.	.	.	.	1
TOTAL	20	41	88	129	332	590	230	91	16	11	4	1552

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	6.00-7.99	>9.99 M/S	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR											
-N-	1	1	2	.	1	1	1	.	.	.	7
-NNE-	1	1	.	.	.	2	.	.	.	.	4
-NE-	.	2	2	1	1	.	.	.	.	.	6
-ENE-	4	1	.	.	.	.	.	.	.	.	5
-E-	1	.	.	.	.	.	.	.	.	.	1
-ESE-	.	1	1	.	1	1	.	.	.	.	4
-SE-	1	2	2	1	1	1	.	.	.	.	8
-SSE-	2	2	3	6	10	7	.	.	.	.	30
-S-	1	11	7	11	24	26	3	.	.	.	83
-SSW-	9	8	8	13	30	19	2	.	.	.	89
-SW-	5	13	10	14	17	29	.	.	.	.	88
-WSW-	1	10	7	2	15	17	4	1	2	.	59
-W-	1	8	6	5	4	8	2	.	.	.	34
-WNW-	5	3	5	4	4	4	.	.	.	.	25
-NW-	1	5	.	3	3	1	.	.	.	.	13
-NNW-	1	3	2	.	3	1	.	.	.	1	11
-CALM-	7	.	.	.	.	.	.	.	.	.	7
TOTAL	41	71	55	60	114	117	12	1	2	1	474

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	TOTAL
	NO.	NO.	NO.	NO.	NO.	NO.	NO.
SECTOR							
-N-	1	1	.	.	.	.	2
-NE-	1	.	.	.	.	.	1
-ENE-	1	.	.	.	.	.	1
-E-	.	.	1	.	.	.	1
-SE-	1	.	1	.	.	.	2
-SSE-	1	1	1	1	.	.	4
-S-	3	4	5	7	8	2	29
-SSW-	16	29	25	19	12	2	103
-SW-	13	20	13	14	4	3	67
-WSW-	3	17	4	1	2	3	30
-W-	4	6	4	4	1	1	20
-WNW-	2	3	.	1	.	.	6
-NW-	1	1	.	1	.	.	3
-NNW-	3	.	.	1	.	.	4
-CALM-	24	.	.	.	.	.	24
TOTAL	74	82	54	49	27	11	297

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	10	20	26	53	73	52	38	39	41	14	3	372
-NNE-	3	7	6	24	62	125	107	72	46	29	19	.	500
-NE-	1	3	10	16	72	192	260	328	148	37	.	.	1067
-ENE-	6	4	2	20	50	122	154	86	38	9	.	.	491
-E-	1	1	8	9	38	105	95	41	11	2	.	.	311
-ESE-	1	4	9	9	26	90	59	14	2	5	.	.	219
-SE-	5	6	13	14	54	131	55	14	1	.	.	.	293
-SSE-	5	8	20	46	110	101	20	9	2	1	.	.	322
-S-	6	23	32	56	111	171	45	18	3	5	.	.	470
-SSW-	27	43	43	63	122	289	162	36	12	5	.	.	802
-SW-	22	37	41	51	101	449	417	238	74	25	.	.	1455
-WSW-	4	31	33	34	126	231	141	85	54	36	2	1	778
-W-	6	22	19	32	62	96	74	42	19	7	1	.	380
-WNW-	9	11	15	35	42	69	59	47	27	39	11	5	369
-NW-	4	10	6	15	33	66	68	76	54	67	27	3	429
-NNW-	5	7	18	21	41	29	44	54	51	70	21	3	364
-CALM-	32	.	.	.	.	.	.	.	.	.	.	.	32
TOTAL	140	227	295	471	1103	2339	1812	1198	581	378	95	15	8654

Attachment 2

Solid Waste Disposal Report

REPORT PERIOD
JANUARY - DECEMBER 2003

McGUIRE NUCLEAR STATION
SOLID RADIOACTIVE WASTE SHIPPED TO DISPOSAL FACILITIES

Attachment 1

TYPES OF WASTES SHIPPED Waste from Liquid Systems	Number of Shipments	Number of Containers	Container Type	Disposal Volume ft^3	Disposal Volume m^3	Waste Class	Total Curies
(A) dewatered powdex resin (brokered)	0	0	N/A	0	0.00	N/A	0.00E+00
(B) dewatered powdex resin	0	0	N/A	0	0.00	N/A	0.00E+00
(C) dewatered bead resin (brokered)	0	0	N/A	0	0.00	N/A	0.00E+00
(D) dewatered bead resin	0	0	N/A	0	0.00	N/A	0.00E+00
(E) dewatered radwaste system resin	1	1	14-195	194.1		A/S	9.87E-01
(F) dewatered primary bead resin	0	0	N/A	0	0.00	N/A	0.00E+00
(G) dewatered mechanical filter media	1	8	HIC	81.6		C	5.10E+01
(H) dewatered mechanical filter media (brokered)	0	0	N/A	0	0.00	N/A	0.00E+00
(I) solidified waste	0	0	N/A	0	0.00	N/A	0.00E+00
Dry Solid Waste							
(A) dry active waste (compacted)	0	0	N/A	0	0.00	N/A	0.00E+00
dry active waste (non-compacted)	0	0	N/A	0	0.00	N/A	0.00E+00
dry active waste (brokered/compacted)	0	0	N/A	0	0.00	N/A	0.000E+00
dry active waste (brokered/non-compacted)	13	16	STC	1164.84	32.98	A/S	4.772E+00
(B) sealed sources/smoke detectors	0	0	N/A	0	0.00	N/A	0.00E+00
(C) sealed sources	0	0	N/A	0	0.00	N/A	0.00E+00
(D) irradiated components	0	0	N/A	0			
Totals	**15**	**25**		**1164.84**	**32.98**		**5.680E+01**

4/22/2004

Attachment 3

Unplanned Offsite Releases

McGUIRE NUCLEAR STATION

UNPLANNED RELEASES

(January 1, 2003 through December 31, 2003)

There were three unplanned gaseous and no unplanned liquid radioactive effluent releases to the environment in 2003. The unplanned gaseous radioactive effluent releases are described in the following pages.

Unplanned Gaseous Waste Release through Unit 1 Vent on 04/21/03

Sequence of Events:

On 4/21/03 Radiation Protection (RP) Shift personnel were notified by the Control Room that EMF-41(Auxiliary Building gas monitor), points # 1 (near the Unit Vent) and point # 4 (716 Elevation in the vicinity of the Waste Gas system components), had a Trip 2 alarm and 1EMF-36 (Unit Vent Gas Monitor) had a Trip 1 alarm. RP Shift personnel immediately confirmed the alarms by viewing EMF data on the computer.

Radwaste Chemistry was notified to determine if any Waste Gas manipulations were in progress. It was determined that Waste Gas Compressor 'A' was in the process of being restarted after maintenance had been performed.

The waste gas apparently leaked from Waste Gas Compressor 'A' seals that had dried out during the maintenance down time. Per Radwaste Chemistry, 143 ft^3 of gas was released from the inservice tank.

1EMF-36 data was trended for this event. This trend showed an increase in counts beginning at approximately 10:45 AM, peaking at approximately 11:15 AM, and returning to normal at approximately 11:45 AM.

A sample was taken from the inservice Waste Gas Decay Tank (WGDT 'C'). The results from the isotopic analysis of the sample were used to document the unplanned release in Gaseous Waste Release (GWR) # 2003022. Total activity associated with this release was 2.54E-1 Curies.

Safety Significance:

The health and safety of the public were not affected by this event. The total activity released during this event was insignificant. Doses to the Total Body, Organ, Gamma Air, and Beta Air were all less than 3 tenths of 1 percent (<0.3%) of the limits specified by Selected Licensee Commitments 16.11.6, 16.11.8, 10CFR20.1301, and 10CFR50 Appendix I B 1.

(See PIP M-03-1798 for additional information)

Daniel C. Britton 4/30/03
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H J Sloan 4/30/03
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Unplanned Gaseous Waste Release Through the Unit Vent on 05/02/03

Sequence of Events:

On 5/2/03 Radiation Protection (RP) Shift was notified by the Control Room that EMF-41 (Auxiliary Building ventilation gas monitor) sample point # 11 (near Boron Recycle (NB) system components) had a Trip 2 alarm. RP Shift personnel immediately verified the alarm by viewing data from the Operator Aid Computer (OAC).

Noble gas activity was identified in the vicinity of the NB system components.
Radwaste Chemistry entered the NB Evaporator room to try to identify the source of the apparent leak. A small quantity of water was observed leaking through a penetration in the ceiling of the room.

EMF-41 sample point # 7 (Unit-2 VA filtered exhaust fan inlet) was trended to determine the activity entering the Unit Vent. NB system noble gas activity was used to determine the isotopic mix. Total activity released was estimated to be 3.07E-1 Curies.

Safety Significance:

The health and safety of the public were not affected by this event. The total activity released during this event was insignificant. Doses to the Total Body, Organ, Gamma Air, and Beta Air were all less than one percent (<1%) of the limits specified by Selected Licensee Commitments 16.11.6, 16.11.8, 10CFR1301, and 10CFR50 Appendix I B 1.

(See PIP M-03-01979 for additional information)

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Unplanned Gaseous Waste Release Through the Unit Vent 05/04/03 - 05/07/03

Sequence of Events:

On 5/3/03 at 1046 and 1235, Radiation Protection (RP) Shift personnel were notified by the Control Room that EMF-41 sample point #4 (716 Elevation in the vicinity of the Waste Gas (WG) system components), had a Trip 1 alarm. These alarms were confirmed by viewing and trending data from the Operator Aid Computer (OAC).

Gas samples taken from the EMF-41 sample point #4 area were inconclusive. Only trace amounts of activity was seen. Radwaste Chemistry could not identify a pressure decrease in any of the Waste Gas Decay Tanks (WGDT).

On 5/5/03 at 0355, RP Shift was again notified by the Control Room that EMF-41 sample point #4 had a Trip 1 alarm. RP Shift personnel again confirmed the alarm by viewing the OAC.

Gas samples were again obtained from the EMF-41 sample point #4 area. Activity was identified in several locations. Further investigation by Radwaste Chemistry identified a measurable loss of pressure from the in-service WGDT ('C") beginning on 5/4/03 at approximately 1800. WGDT 'A' was placed in service at 0800 on 5/5/03 to provide a lower activity pathway until the source of the leak was identified. At 0830 on 5/6/03, WGDT 'E' was placed in service. On 5/6/03 at approximately 0900, the source of the leak was identified as a pin hole in a WG pipe. A temporary patch was fabricated and installed at 1100 on 5/7/03. WGDT 'D' was discovered to have lost pressure apparently by leaking by a valve into the in-service header while WGDT 'E' was in-service.

Activity released from the four WGDTs was determined from the pressure losses and samples from the tanks. Total activity released was determined to by 3.39E-1 Curies.

Safety Significance:

The health and safety of the public were not affected by this event. The total activity released was insignificant. Doses to the Total Body, Organ, Gamma Air, and Beta Air were all less than four one hundredths of one percent (<0.04%) of the limits specified by Selected Licensee Commitments 16.11.6, 16.11.8, 10CFR1301, and 10CFR50 Appendix I B 1.

(See PIP M-03-01988)

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Attachment 4

Fuel Cycle Calculation

McGuire Nuclear Station
2003 Radioactive Effluent Releases
40CFR190 Uranium Fuel Cycle Dose* Calculation Results

Maximum Total Body Dose = 8.22E-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 = 7.94E-02 mrem = 10% of total

Critical Path = Potable Water
Major Contributor = H-3 (98.2%)

Gas Effluent Dose = 7.43E-01 mrem = 90% of total

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

Maximum Organ Dose = 8.29E-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 = 8.60E-02 mrem = 10% of total

Critical Path = Potable Water
Major Contributors = H-3 (90.6%)
CS-137 (8.9%)

Gas Effluent Dose = 7.43E-01 mrem = 90% 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, 2003 through December 31, 2003)

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