Duke Energy

H. B. Barron
Vice President

Duke Energy Corporation
McGuire Nuclear Station
12700 Hagers Ferry Road
Huntersville, NC 28078-9340
(704) 875-4800 OFFICE
(704) 875-4809 FAX

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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

By letter dated April 27, 2000, Duke Energy Corporation submitted the McGuire Annual Radioactive Effluent Release Report for 1999. An error was recently discovered in the liquid tritium composite value for April 1999. This error is documented in Problem Investigation Report (PIP) M-01-02025. Attached are revised pages for the 1999 Annual Liquid and Gaseous Effluent Report that were affected by the incorrect tritium composite value. The overall effect on calculated liquid effluent dose to the public from this error is insignificant.

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, Vice President
McGuire Nuclear Station

Attachment

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cc: Mr. Bob Martin, Project Manager
Office of Nuclear Reactor Regulation
Mail Stop 08D12
Washington, D.C. 20555

Mr. Luis Reyes, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street - Suite 23T85
Atlanta, GA 30323

Mr. R. M. Frye, Director
Division of Radiation Protection
State of North Carolina
3825 Barrett Drive
Raleigh, N.C. 27609-7221

American Nuclear Insurers
Town Center, Suite 300S
29 South Main Street
West Hartford, CT 06107-2445

Mr. Scott Shaeffer
Senior Resident Inspector
McGuire Nuclear Station

TABLE 2A

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/99 TO 1/1/00
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

McGuire Nuclear Station Units 1 & 2

REPORT FOR 1999	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
A. Fission and Activation Products						
1. Total Release	Ci	2.01E-02	4.25E-02	2.17E-02	2.64E-02	1.11E-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	2.59E-11	4.46E-11	2.23E-11	3.02E-11	3.10E-11
B. Tritium						
1. Total Release	Ci	1.61E+02	2.57E+02	1.50E+02	7.78E+01	6.44E+02
2. Average Diluted Concentration						
a. Continuous Releases	µCi/ml	1.40E-08	3.09E-08	2.26E-08	2.11E-08	1.97E-08
b. Batch Releases	µCi/ml	2.06E-07	2.69E-07	1.53E-07	8.86E-08	1.79E-07
C. Dissolved and Entrained Gases						
1. Total Release	Ci	6.50E-06	1.57E-05	0.00E+00	0.00E+00	2.22E-05
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	8.39E-15	1.64E-14	0.00E+00	0.00E+00	6.20E-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	6.72E+07	6.33E+07	8.60E+07	8.40E+07	3.01E+08
2. Batch Releases	liters	1.41E+06	2.10E+06	9.85E+06	1.91E+07	3.25E+07
F. Volume of Dilution Water						
1. Continuous Releases	liters	5.47E+10	1.87E+10	2.52E+10	1.79E+10	1.17E+11
2. Batch Releases	liters	7.75E+11	9.53E+11	9.72E+11	8.74E+11	3.57E+12

TABLE 2B

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/99 TO 1/1/00
LIQUID EFFLUENTS - BATCH MODE

McGuire Nuclear Station Units 1 & 2

REPORT FOR 1999	Unit	QTR 1	QTR 2	QTR 3	QTR 4	YEAR
1. Fission and Activation Gases						
AG-110M	Ci	7.15E-04	3.18E-04	4.16E-04	1.83E-03	3.28E-03
BR-82	Ci	0.00E+00	3.44E-06	0.00E+00	0.00E+00	3.44E-06
CO-57	Ci	1.14E-04	1.49E-04	7.84E-05	4.20E-05	3.84E-04
CO-58	Ci	1.20E-02	3.09E-02	1.32E-02	1.43E-02	7.04E-02
CO-60	Ci	3.70E-03	3.05E-03	2.33E-03	2.83E-03	1.19E-02
CR-51	Ci	2.13E-03	6.00E-03	1.12E-03	4.85E-03	1.41E-02
CS-134	Ci	2.06E-06	3.83E-06	1.29E-05	3.23E-05	5.11E-05
CS-137	Ci	3.39E-04	9.00E-04	4.92E-04	8.32E-04	2.56E-03
FE-59	Ci	4.19E-05	1.52E-04	7.83E-05	1.37E-04	4.09E-04
I-131	Ci	0.00E+00	3.85E-05	0.00E+00	0.00E+00	3.85E-05
I-133	Ci	0.00E+00	2.34E-05	0.00E+00	0.00E+00	2.34E-05
MN-54	Ci	4.02E-04	3.80E-04	5.00E-04	5.70E-04	1.85E-03
NA-24	Ci	0.00E+00	1.68E-06	0.00E+00	0.00E+00	1.68E-06
NB-95	Ci	6.75E-05	1.63E-04	1.26E-04	1.80E-04	5.37E-04
NB-97	Ci	6.05E-06	1.72E-05	1.65E-05	3.25E-05	7.23E-05
SB-124	Ci	0.00E+00	2.29E-05	4.43E-06	6.58E-06	3.39E-05
SB-125	Ci	5.44E-04	2.53E-04	3.34E-03	5.93E-04	4.73E-03
SR-92	Ci	5.12E-06	1.17E-06	0.00E+00	3.63E-06	9.91E-06
ZR-95	Ci	2.13E-05	8.47E-05	1.02E-05	9.81E-05	2.14E-04
Totals for Period...	Ci	2.01E-02	4.25E-02	2.17E-02	2.63E-02	1.11E-01
2. Tritium						
H-3	Ci	1.60E+02	2.57E+02	1.49E+02	7.75E+01	6.41E+02
Totals for Period...	Ci	1.60E+02	2.57E+02	1.49E+02	7.75E+01	6.41E+02
3. Dissolved and Entrained Gases						
XE-133	Ci	6.50E-06	1.57E-05	0.00E+00	0.00E+00	2.22E-05
Totals for Period...	Ci	6.50E-06	1.57E-05	0.00E+00	0.00E+00	2.22E-05
4. Gross Alpha Radioactivity						
** No Nuclide Activities **		.....	.....	.....	.....	.....

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
PERIOD 1/1/99 TO 1/1/00
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

2nd Quarter 1999

=== BATCH LIQUID RELEASES ========== Quarter 2 1999 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q2 - Maximum Organ Dose	CHILD	LIVER	3.25E-02	1.00E+01	3.25E-01
Q2 - Total Body Dose	CHILD		2.90E-02	3.00E+00	9.67E-01

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

Nuclide	Percentage
H-3	8.65E+01
CS-137	1.30E+01

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

Nuclide	Percentage
H-3	9.70E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Quarter 2 1999 ======

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Q2 - Maximum Organ Dose	CHILD	LIVER	8.06E-04	1.00E+01	8.06E-03
Q2 - Total Body Dose	CHILD		8.06E-04	3.00E+00	2.69E-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 1/1/99 TO 1/1/00
LIQUID ANNUAL DOSE SUMMARY REPORT

McGuire Nuclear Station Units 1 & 2

ANNUAL 1999

=== BATCH LIQUID RELEASES ========== Annual 1999 =========

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Yr - Maximum Organ Dose	CHILD	LIVER	8.87E-02	2.00E+01	4.44E-01
Yr - Total Body Dose	CHILD		7.78E-02	6.00E+00	1.30E+00

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

Nuclide	Percentage
H-3	8.47E+01
CS-137	1.45E+01

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

Nuclide	Percentage
H-3	9.65E+01

=== CONTINUOUS LIQUID RELEASES (WC) ========== Annual 1999 =========

Period-Limit	Critical Age	Critical Organ	Dose (mrem)	Limit (mrem)	Max % of Limit
Yr - Maximum Organ Dose	CHILD	LIVER	2.06E-03	2.00E+01	1.03E-02
Yr - Total Body Dose	CHILD		2.06E-03	6.00E+00	3.43E-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
1999 Radioactive Effluent Releases
40CFR190 Uranium Fuel Cycle Dose* Calculation Results

Maximum Total Body Dose = 5.24E-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 = 7.78E-02 mrem = 15% of total

Critical Path = Potable Water
Major Contributor = H-3 (96.5%)

Gas Effluent Dose = 4.46E-01 mrem = 85% of total

Critical Path = Vegetation
Major Contributor = H-3 (98.8%)

Maximum Organ Dose = 5.34E-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 = 8.87E-02 mrem = 17% of total

Critical Path = Potable Water
Major Contributors = H-3 (84.7%)
CS-137 (14.5%)

Gas Effluent Dose = 4.46E-01 mrem = 83% of total

Critical Path = Vegetation
Major Contributor = H-3 (98.9%)

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