Southern Nuclear Operating Company
Post Office Box 1295
Birmingham, Alabama 35201
Telephone (205) 868-5131

Dave Morey
Vice President
Farley Project

Southern Nuclear Operating Company
the southern electric system

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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Joseph M. Farley Nuclear Plant
Annual Radioactive Effluent Release Report

Ladies and Gentleman:

In accordance with the Unit 1 and Unit 2 Technical Specifications, Sections 6.9.1.8 and 6.9.1.9, the FNP Annual Radioactive Effluent Release Report for 1995 is hereby submitted.

Should you have any questions, please advise.

Respectfully submitted,

DB Morey

Dave Morey

WBH

cc: B. L. Seigel
S. D. Ebneter
T. M. Ross

IE48 1/1

SOUTHERN NUCLEAR OPERATING COMPANY
FARLEY NUCLEAR PLANT UNIT NO. ONE
LICENSE NO. NPF-2
AND
FARLEY NUCLEAR PLANT UNIT NO. TWO
LICENSE NO. NPF-8

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
CALENDAR YEAR 1995

FARLEY NUCLEAR PLANT
ANNUAL RADIOACTIVE EFFLUENT
RELEASE REPORT

FARLEY NUCLEAR PLANT
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1.0 INTRODUCTION

In accordance with Technical Specification (TS) 6.9.1.8 and 6.9.1.9 and Offsite Dose Calculation Manual (ODCM) 7.2, this Annual Radioactive Effluent Release Report covers the operations of the Farley Nuclear Plant (FNP) during 1995. Information regarding the radioactive liquid and gaseous effluents and solid waste releases are summarized in formats similar to those provided in the Nuclear Regulatory Commission (NRC) Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light Water Cooled Nuclear Power Plants", Revision 1, June 1974. In addition the report includes required or appropriate information regarding meteorology, dose assessment and other pertinent matters.

Detailed information on liquid effluents is provided in Section 2. The quantities of the radioactive effluents (including any unplanned releases) are summarized on a quarterly basis. A tabulation of the total body and organ doses which were calculated in accordance with ODCM 2.4 are presented to show conformance with the limits of ODCM 2.1.3.

Detailed information on gaseous effluents similar to that for liquid effluents is provided in Section 3. Tabulations are provided of the offsite air doses calculated in accordance with ODCM 3.4.2 to show conformance with the limits of ODCM 3.1.3, and the offsite organ doses to a member of the public calculated in accordance with ODCM 3.4.3 to show conformance with the limits of ODCM 3.1.4.

Detailed information as specified by ODCM 7.2.2.4 on any solid radwastes shipped offsite is provided in Section 4. The data is summarized on a semiannual basis.

Assessments of the doses to members of the public due to their activities inside the site boundary are provided in Section 5. These assessments are performed as specified by ODCM 6.2.

A number of miscellaneous matters are addressed in Section 6. These are matters which require reporting only under certain conditions. The alphabetized list given below includes the conditional matters addressed.

A. An assessment of the radiation doses to the likely most exposed member of the public from reactor releases and other nearby uranium fuel cycle sources to show conformance with 40CFR190, should a determination be required by ODCM 5.1.2.

B. Any licensee initiated changes to the ODCM pursuant to TS 6.14 including changes to the sampling locations in the Radiological Environmental Monitoring Program pursuant to ODCM 4.1.1.2.3 or 4.1.2.2.2, or changes in the location of the controlling dose receptor identified in ODCM 3.4.3 pursuant to ODCM 4.1.2.2.1.

C. Discussions of deviations in the Radioactive Effluent Control Program pursuant to ODCM 7.2.2.6.

D. Any major changes to the liquid or gaseous radwaste treatment systems initiated by the licensee as required by ODCM 2.1.5 and 3.1.6, respectively, or to the solid radwaste treatment system pursuant to the Process Control Program (PCP) App. B section B.4.1.

Meteorological data are retained onsite; these data are available to the NRC upon request. The meteorological data include annual as well as quarterly summaries of hourly measurements of wind speed, wind direction and atmospheric stability in the form of joint frequency distribution tables.

2.0 LIQUID EFFLUENTS

This section contains applicable ODCM limits for liquid effluents as well as the quantities of radioactive liquid effluents released during 1995. These quantities are summarized on a quarterly basis and include any unplanned releases. A tabulation of the total body and organ doses which were calculated in accordance with ODCM 2.4 are presented to show conformance with the limits of ODCM 2.1.3.

2.1 ODCM Limits

In accordance with Technical Specifications 6.8.3.e(ii) and 6.8.3.e(iii), the concentration of radioactive material released in liquid effluents to UNRESTRICTED AREAS (see ODCM Figure 10-1) shall be limited at all times to ten times the concentrations specified in 10CFR20, Appendix B, Table 2, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to 1E-04 uCi/ML total activity.

In accordance with Technical Specifications 6.8.3.e(iv) and 6.8.3.e(v), the dose or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released, from each unit, to UNRESTRICTED AREAS (see ODCM Figure 10-1) shall be limited:

a. During any calendar quarter to less than or equal to 1.5 mrem to the total body and to less than or equal to 5 mrem to any organ, and

b. During any calendar year to less than or equal to 3 mrem to the total body and to less than or equal to 10 mrem to any organ.

2.2 Measurements and Approximation of Total Radioactivity

The radionuclides listed below are considered when evaluating liquid effluents:

MN-54	CS-134
FE-59	CS-137
CO-58	CE-141
CO-60	CE-144
ZN-65	MO-99
SR-89	FE-55
SR-90	H-3
I-131	

Batch Releases: Representative pre-release grab samples are obtained and analyzed in accordance with ODCM Table 2-3. Isotopic analyses are performed using the computerized pulse height analysis system utilizing high resolution germanium detectors. Isotopic values thus obtained are used for release rate calculations as specified in the ODCM. Only those nuclides that are detected are used in the calculations. Strontium determinations are made by performing a chemical separation and counting the isotope thus separated using a 2 pi gas flow proportional counter. Gross beta and gross alpha determinations are made using 2 pi gas flow proportional counters. Tritium and Iron 55 determinations are made using liquid scintillation techniques. Dissolved gases are determined employing grab sampling techniques and then counting on the pulse height analyzer.

Continuous Releases: Continuous releases are analogous to batch releases except that they are analyzed on a weekly composite basis in accordance with ODCM Table 2-3.

The maximum error associated with volume and flow measurements, based upon plant calibration practice is estimated to be + or - 10%. The average error associated with counting is estimated to be less than + or - 15%.

2.3 Abnormal Releases

There were no abnormal liquid releases on either Unit 1 or Unit 2 during 1995.

2.4 Batch Releases

Batch release information for Units 1 and 2 is summarized in the following tables:

Unit 1 1995 Liquid Batch Releases : Table 1-4A
Unit 2 1995 Liquid Batch Releases : Table 1-4B

TABLE 1-4A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Batch Release Summary
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

LIQUID RELEASES			
NUMBER OF BATCH RELEASES	:	283	
TOTAL TIME PERIOD FOR BATCH RELEASES	:	24276.27	MINUTES
MAXIMUM TIME PERIOD FOR A BATCH RELEASE	:	127.00	MINUTES
AVERAGE TIME PERIOD FOR BATCH RELEASES	:	85.78	MINUTES
MINIMUM TIME PERIOD FOR A BATCH RELEASE	:	1.00	MINUTES
AVERAGE STREAM FLOW DURING PERIODS OF RELEASE OF LIQUID EFFLUENT INTO A FLOWING STREAM	:	1.12E+04	CFS *

* Average River Flow Rate, taken at Walter F. George Lock and Dam, located 30.7 miles above Farley Nuclear Plant.

TABLE 1-4A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Batch Release Summary
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

LIQUID RELEASES			
NUMBER OF BATCH RELEASES	:	285	
TOTAL TIME PERIOD FOR BATCH RELEASES	:	24689.35	MINUTES
MAXIMUM TIME PERIOD FOR A BATCH RELEASE	:	369.00	MINUTES
AVERAGE TIME PERIOD FOR BATCH RELEASES	:	86.63	MINUTES
MINIMUM TIME PERIOD FOR A BATCH RELEASE	:	37.00	MINUTES
AVERAGE STREAM FLOW DURING PERIODS OF RELEASE OF LIQUID EFFLUENT INTO A FLOWING STREAM	:	7.74E+03	CFS *

* Average River Flow Rate, taken at Walter F. George Lock and Dam, located 30.7 miles above Farley Nuclear Plant.

TABLE 1-4B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Batch Release Summary
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

LIQUID RELEASES			
NUMBER OF BATCH RELEASES	:	227	
TOTAL TIME PERIOD FOR BATCH RELEASES	:	21448.00	MINUTES
MAXIMUM TIME PERIOD FOR A BATCH RELEASE	:	132.00	MINUTES
AVERAGE TIME PERIOD FOR BATCH RELEASES	:	94.48	MINUTES
MINIMUM TIME PERIOD FOR A BATCH RELEASE	:	84.00	MINUTES
AVERAGE STREAM FLOW DURING PERIODS OF RELEASE OF LIQUID EFFLUENT INTO A FLOWING STREAM	:	1.12E+04	CFS *

* Average River Flow Rate, taken at Walter F. George Lock and Dam, located 30.7 miles above Farley Nuclear Plant.

TABLE 1-4B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Batch Release Summary
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

LIQUID RELEASES			
NUMBER OF BATCH RELEASES	:	102	
TOTAL TIME PERIOD FOR BATCH RELEASES	:	9521.00	MINUTES
MAXIMUM TIME PERIOD FOR A BATCH RELEASE	:	155.00	MINUTES
AVERAGE TIME PERIOD FOR BATCH RELEASES	:	93.34	MINUTES
MINIMUM TIME PERIOD FOR A BATCH RELEASE	:	2.00	MINUTES
AVERAGE STREAM FLOW DURING PERIODS OF RELEASE OF LIQUID EFFLUENT INTO A FLOWING STREAM	:	7.74E+03	CFS *

* Average River Flow Rate, taken at Walter F. George Lock and Dam, located 30.7 miles above Farley Nuclear Plant.

2.5 Release Summaries

This section contains the summaries of all radioactive liquid effluents released for Units 1 and 2 during 1995. Typical liquid Minimum Detectable Concentrations (MDC'S) for analyses are in Table 1-5 of this section. Regulatory Guide 1.21 Table 2A is found in this report as Tables 1-1A, 1-1B, and 1-1C. Regulatory Guide 1.21 Table 2B is found in this report as Tables 1-2A, 1-2B, and 1-2C.

2.5.1 Liquid Effluents - Summation of All Releases

The summations of all liquid effluent releases are contained in the following tables:

Unit 1 1995 Summation of All Releases : Table 1-1A
Unit 2 1995 Summation of All Releases : Table 1-1B
Site 1995 Summation of All Releases : Table 1-1C

TABLE 1-1A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Summation of All Releases
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

TYPE OF EFFLUENT	UNITS	QUARTER 1	QUARTER 2	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE (NOT INCLUDING TRITIUM, GASES, ALPHA)	CURIES	2.68E-02	2.52E-02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.60E-09	1.46E-09	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. TRITIUM				
1. TOTAL RELEASE	CURIES	2.16E+02	2.01E+02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.29E-05	1.17E-05	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. DISSOLVED AND ENTRAINED GASES				
1. TOTAL RELEASE	CURIES	2.16E-03	6.97E-03	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.29E-10	4.05E-10	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
D. GROSS ALPHA RADIOACTIVITY				
1. TOTAL RELEASE	CURIES	1.05E-05	1.51E-05	2.50E+01
E. WASTE VOL RELEASED(PRE-DILUTION)	LITERS	8.01E+07	7.27E+07	1.00E+01
F. VOLUME OF DILUTION WATER USED	LITERS	1.66E+10	1.71E+10	1.00E+01

* Applicable limits are expressed in terms of dose. See Tables 1-3A and 1-3B of this report.

TABLE 1-1A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Summation of All Releases
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

TYPE OF EFFLUENT	UNITS	QUARTER 3	QUARTER 4	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE (NOT INCLUDING TRITIUM, GASES, ALPHA)	CURIES	1.92E-02	9.25E-02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.10E-09	4.90E-09	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. TRITIUM				
1. TOTAL RELEASE	CURIES	9.95E+01	6.39E+01	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	5.73E-06	3.39E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. DISSOLVED AND ENTRAINED GASES				
1. TOTAL RELEASE	CURIES	3.44E-03	1.37E-04	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.98E-10	7.24E-12	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
D. GROSS ALPHA RADIOACTIVITY				
1. TOTAL RELEASE	CURIES	2.27E-05	3.26E-05	2.50E+01
E. WASTE VOL RELEASED(PRE-DILUTION)	LITERS	7.59E+07	7.16E+07	1.00E+01
F. VOLUME OF DILUTION WATER USED	LITERS	1.73E+10	1.88E+10	1.00E+01

* Applicable limits are expressed in terms of dose. See Tables 1-3A and 1-3B of this report.

TABLE 1-1B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Summation of All Releases
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

TYPE OF EFFLUENT	UNITS	QUARTER 1	QUARTER 2	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE (NOT INCLUDING TRITIUM, GASES, ALPHA)	CURIES	1.37E-02	3.38E-02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	8.50E-10	1.91E-09	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. TRITIUM				
1. TOTAL RELEASE	CURIES	2.28E+02	1.81E+02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.42E-05	1.02E-05	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. DISSOLVED AND ENTRAINED GASES				
1. TOTAL RELEASE	CURIES	4.96E-03	7.56E-03	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	3.09E-10	4.27E-10	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
D. GROSS ALPHA RADIOACTIVITY				
1. TOTAL RELEASE	CURIES	1.45E-05	3.82E-05	2.50E+01
E. WASTE VOL RELEASED(PRE-DILUTION)	LITERS	6.73E+07	7.40E+07	1.00E+01
F. VOLUME OF DILUTION WATER USED	LITERS	1.60E+10	1.76E+10	1.00E+01

* Applicable limits are expressed in terms of dose. See Tables 1-3A and 1-3B of this report.

TABLE 1-1B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Summation of All Releases
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

TYPE OF EFFLUENT	UNITS	QUARTER 3	QUARTER 4	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE (NOT INCLUDING TRITIUM, GASES, ALPHA)	CURIES	2.35E-02	3.11E-02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.38E-09	1.72E-09	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. TRITIUM				
1. TOTAL RELEASE	CURIES	1.02E+02	1.71E+02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	5.97E-06	9.50E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. DISSOLVED AND ENTRAINED GASES				
1. TOTAL RELEASE	CURIES	3.53E-03	8.48E-04	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	2.07E-10	4.71E-11	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
D. GROSS ALPHA RADIOACTIVITY				
1. TOTAL RELEASE	CURIES	2.90E-05	8.97E-06	2.50E+01
E. WASTE VOL RELEASED(PRE-DILUTION)	LITERS	8.07E+07	7.82E+07	1.00E+01
F. VOLUME OF DILUTION WATER USED	LITERS	1.70E+10	1.79E+10	1.00E+01

* Applicable limits are expressed in terms of dose. See Tables 1-3A and 1-3B of this report.

TABLE 1-1C
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Summation of All Releases
Unit: Site
Starting : 1-Jan-1995 Ending : 30-Jun-1995

TYPE OF EFFLUENT	UNITS	QUARTER 1	QUARTER 2	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE (NOT INCLUDING TRITIUM, GASES, ALPHA)	CURIES	4.04E-02	5.90E-02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.23E-09	1.69E-09	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. TRITIUM				
1. TOTAL RELEASE	CURIES	4.44E+02	3.82E+02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.35E-05	1.09E-05	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. DISSOLVED AND ENTRAINED GASES				
1. TOTAL RELEASE	CURIES	7.12E-03	1.45E-02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	2.17E-10	4.16E-10	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
D. GROSS ALPHA RADIOACTIVITY				
1. TOTAL RELEASE	CURIES	3.40E-05	5.33E-05	2.50E+01
E. WASTE VOL RELEASED(PRE-DILUTION)	LITERS	1.47E+08	1.47E+08	1.00E+01
F. VOLUME OF DILUTION WATER USED	LITERS	3.26E+10	3.48E+10	1.00E+01

* Applicable limits are expressed in terms of dose. See Tables 1-3A and 1-3B of this report.

TABLE 1-1C
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents - Summation of All Releases
Unit: Site
Starting : 1-Jul-1995 Ending : 31-Dec-1995

TYPE OF EFFLUENT	UNITS	QUARTER 3	QUARTER 4	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE (NOT INCLUDING TRITIUM, GASES, ALPHA)	CURIES	4.27E-02	1.24E-01	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	1.24E-09	3.35E-09	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. TRITIUM				
1. TOTAL RELEASE	CURIES	2.01E+02	2.35E+02	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	5.85E-06	6.37E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. DISSOLVED AND ENTRAINED GASES				
1. TOTAL RELEASE	CURIES	6.97E-03	9.85E-04	2.50E+01
2. AVERAGE DILUTED CONCENTRATION DURING PERIOD	uCi/ML	2.02E-10	2.67E-11	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
D. GROSS ALPHA RADIOACTIVITY				
1. TOTAL RELEASE	CURIES	5.17E-05	4.16E-05	2.50E+01
E. WASTE VOL RELEASED(PRE-DILUTION)	LITERS	1.57E+08	1.50E+08	1.00E+01
F. VOLUME OF DILUTION WATER USED	LITERS	3.43E+10	3.67E+10	1.00E+01

* Applicable limits are expressed in terms of dose. See Tables 1-3A and 1-3B of this report.

2.5.2 Liquid Effluents - Continuous and Batch Releases

The continuous and batch release summaries of all liquid effluent releases (includes listing by nuclide) are contained in the following tables:

Unit 1 1995 Continuous and Batch Releases : Table 1-2A
Unit 2 1995 Continuous and Batch Releases : Table 1-2B
Site 1995 Continuous and Batch Releases : Table 1-2C

TABLE 1-2A*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
H-3	CURIES	4.92E-07	4.85E-03	2.16E+02	2.01E+02
FISSION & ACTIVATION PRODUCTS					
AG-110M	CURIES	0.00E+00	0.00E+00	5.11E-05	1.33E-05
CO-57	CURIES	0.00E+00	0.00E+00	5.15E-05	2.90E-05
CO-58	CURIES	0.00E+00	0.00E+00	1.34E-02	9.65E-03
CO-60	CURIES	0.00E+00	0.00E+00	3.68E-03	5.15E-03
CR-51	CURIES	0.00E+00	0.00E+00	7.28E-04	3.34E-04
CS-134	CURIES	0.00E+00	0.00E+00	7.50E-04	3.60E-04
CS-137	CURIES	0.00E+00	0.00E+00	1.31E-03	8.94E-04
FE-55	CURIES	1.19E-03	2.07E-03	1.94E-03	1.82E-03
FE-59	CURIES	0.00E+00	0.00E+00	1.21E-04	5.48E-05
I-131	CURIES	0.00E+00	0.00E+00	0.00E+00	1.16E-06
I-133	CURIES	0.00E+00	0.00E+00	9.88E-07	0.00E+00
MN-54	CURIES	0.00E+00	0.00E+00	4.47E-04	5.17E-04
NA-24	CURIES	0.00E+00	0.00E+00	0.00E+00	1.82E-06
NB-95	CURIES	0.00E+00	0.00E+00	7.58E-05	1.04E-04
NB-97	CURIES	0.00E+00	0.00E+00	4.86E-04	8.14E-05
RH-106	CURIES	0.00E+00	0.00E+00	0.00E+00	8.34E-06
RU-103	CURIES	0.00E+00	0.00E+00	0.00E+00	2.06E-06
RU-106	CURIES	0.00E+00	0.00E+00	0.00E+00	8.34E-06
SB-122	CURIES	0.00E+00	0.00E+00	6.25E-06	3.56E-06
SB-124	CURIES	0.00E+00	0.00E+00	0.00E+00	3.36E-04
SB-125	CURIES	0.00E+00	0.00E+00	1.71E-03	3.11E-03
SN-117M	CURIES	0.00E+00	0.00E+00	4.90E-07	0.00E+00
SR-89	CURIES	6.55E-11	3.27E-11	1.19E-05	9.26E-06
SR-90	CURIES	1.11E-11	3.64E-12	4.74E-06	7.17E-06
SR-92	CURIES	0.00E+00	0.00E+00	1.56E-05	6.22E-06
TE-125M	CURIES	0.00E+00	0.00E+00	2.38E-04	0.00E+00
ZN-65	CURIES	0.00E+00	0.00E+00	5.43E-04	5.73E-04
ZR-95	CURIES	0.00E+00	0.00E+00	0.00E+00	2.34E-05
TOTALS	CURIES	1.19E-03	2.07E-03	2.56E-02	2.31E-02

TABLE 1-2A*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
DISSOLVED AND ENTRAINED GASES					
AR-41	CURIES	0.00E+00	0.00E+00	5.37E-06	0.00E+00
XE-133	CURIES	0.00E+00	0.00E+00	2.12E-03	6.94E-03
XE-133M	CURIES	0.00E+00	0.00E+00	0.00E+00	2.19E-05
XE-135	CURIES	0.00E+00	0.00E+00	3.10E-05	1.34E-05
TOTALS	CURIES	0.00E+00	0.00E+00	2.16E-03	6.97E-03
G-ALPHA	CURIES	4.09E-11	4.73E-11	1.95E-05	1.51E-05

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 1-5 for typical minimum detectable concentrations.

TABLE 1-2A*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
H-3	CURIES	6.03E-07	2.54E-02	9.95E+01	6.39E+01
FISSION & ACTIVATION PRODUCTS					
AG-110M	CURIES	0.00E+00	0.00E+00	8.09E-05	6.51E-03
BE-7	CURIES	0.00E+00	0.00E+00	1.29E-05	0.00E+00
CE-144	CURIES	0.00E+00	0.00E+00	0.00E+00	4.06E-06
CO-57	CURIES	0.00E+00	0.00E+00	2.30E-05	1.69E-04
CO-58	CURIES	0.00E+00	0.00E+00	5.42E-03	4.70E-02
CO-60	CURIES	0.00E+00	0.00E+00	3.44E-03	7.15E-03
CR-51	CURIES	0.00E+00	0.00E+00	5.58E-04	1.35E-02
CS-134	CURIES	0.00E+00	0.00E+00	3.64E-04	1.99E-04
CS-137	CURIES	0.00E+00	0.00E+00	1.20E-03	1.40E-03
FE-55	CURIES	7.41E-04	9.68E-04	2.19E-03	1.65E-03
FE-59	CURIES	0.00E+00	0.00E+00	2.38E-05	3.01E-04
I-131	CURIES	0.00E+00	0.00E+00	1.14E-06	0.00E+00
I-133	CURIES	0.00E+00	0.00E+00	0.00E+00	1.05E-05
MN-54	CURIES	0.00E+00	0.00E+00	2.64E-04	1.14E-03
NA-24	CURIES	0.00E+00	0.00E+00	0.00E+00	1.06E-05
NB-95	CURIES	0.00E+00	0.00E+00	4.72E-05	1.53E-03
NB-97	CURIES	0.00E+00	0.00E+00	6.08E-05	1.33E-04
PM-149	CURIES	0.00E+00	0.00E+00	1.46E-05	0.00E+00
RB-86	CURIES	0.00E+00	0.00E+00	1.22E-05	2.17E-05
RH-106	CURIES	0.00E+00	0.00E+00	0.00E+00	1.62E-05
RU-103	CURIES	0.00E+00	0.00E+00	0.00E+00	1.65E-04
RU-106	CURIES	0.00E+00	0.00E+00	0.00E+00	1.62E-05
SB-122	CURIES	0.00E+00	0.00E+00	2.24E-06	0.00E+00
SB-124	CURIES	0.00E+00	0.00E+00	0.00E+00	7.51E-04
SB-125	CURIES	0.00E+00	0.00E+00	3.99E-03	7.86E-03
SN-113	CURIES	0.00E+00	0.00E+00	0.00E+00	1.21E-04
SR-89	CURIES	4.09E-11	1.46E-11	1.24E-05	2.78E-05
SR-90	CURIES	1.34E-11	8.19E-12	5.00E-06	9.34E-06
SR-92	CURIES	0.00E+00	0.00E+00	5.27E-06	6.48E-06
TC-99M	CURIES	0.00E+00	0.00E+00	6.38E-06	0.00E+00
TE-125M	CURIES	0.00E+00	0.00E+00	1.58E-04	0.00E+00
TE-132	CURIES	0.00E+00	0.00E+00	1.72E-04	0.00E+00
ZN-65	CURIES	0.00E+00	0.00E+00	3.73E-04	5.12E-04

TABLE 1-2A*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
FISSION & ACTIVATION PRODUCTS					
ZR-95	CURIES	0.00E+00	0.00E+00	6.03E-06	1.29E-03
TOTALS	CURIES	7.41E-04	9.68E-04	1.84E-02	9.15E-02
DISSOLVED AND ENTRAINED GASES					
XE-133	CURIES	0.00E+00	0.00E+00	3.43E-03	1.37E-04
XE-135	CURIES	0.00E+00	0.00E+00	7.64E-06	0.00E+00
TOTALS	CURIES	0.00E+00	0.00E+00	3.44E-03	1.37E-04
G-ALPHA	CURIES	2.82E-11	4.00E-11	2.27E-05	3.26E-05

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 1-5 for typical minimum detectable concentrations.

TABLE 1-2B*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
H-3	CURIES	4.77E-07	2.41E-06	2.28E+02	1.81E+02
FISSION & ACTIVATION PRODUCTS					
AG-110M	CURIES	0.00E+00	0.00E+00	3.64E-05	9.87E-06
BE-7	CURIES	0.00E+00	0.00E+00	1.73E-05	0.00E+00
CO-57	CURIES	0.00E+00	0.00E+00	1.26E-05	3.10E-05
CO-58	CURIES	0.00E+00	0.00E+00	5.80E-03	1.81E-02
CO-60	CURIES	0.00E+00	0.00E+00	1.01E-03	1.44E-03
CR-51	CURIES	0.00E+00	0.00E+00	5.86E-04	9.38E-04
CS-134	CURIES	0.00E+00	0.00E+00	7.67E-04	5.10E-04
CS-137	CURIES	0.00E+00	0.00E+00	1.33E-03	1.04E-03
FE-55	CURIES	7.74E-04	6.16E-04	8.94E-04	1.64E-03
FE-59	CURIES	0.00E+00	0.00E+00	3.96E-05	1.06E-04
I-131	CURIES	0.00E+00	0.00E+00	0.00E+00	1.06E-06
MN-54	CURIES	0.00E+00	0.00E+00	7.82E-05	1.01E-04
NA-24	CURIES	0.00E+00	0.00E+00	1.45E-05	1.59E-05
NB-95	CURIES	0.00E+00	0.00E+00	0.00E+00	9.42E-05
NB-97	CURIES	0.00E+00	0.00E+00	6.94E-06	5.57E-05
PR-144	CURIES	0.00E+00	0.00E+00	6.91E-05	0.00E+00
SB-122	CURIES	0.00E+00	0.00E+00	5.90E-06	0.00E+00
SB-124	CURIES	0.00E+00	0.00E+00	0.00E+00	5.70E-04
SB-125	CURIES	0.00E+00	0.00E+00	1.90E-03	6.53E-03
SN-113	CURIES	0.00E+00	0.00E+00	2.91E-06	0.00E+00
SR-89	CURIES	4.59E-11	5.00E-11	9.97E-06	2.52E-05
SR-90	CURIES	6.82E-12	5.46E-12	2.85E-07	7.20E-07
SR-92	CURIES	0.00E+00	0.00E+00	0.00E+00	1.33E-05
XE-127	CURIES	0.00E+00	0.00E+00	0.00E+00	5.30E-06
ZN-65	CURIES	0.00E+00	0.00E+00	3.23E-04	1.94E-03
ZR-95	CURIES	0.00E+00	0.00E+00	0.00E+00	2.20E-05
TOTALS	CURIES	7.74E-04	6.16E-04	1.29E-02	3.32E-02

TABLE 1-2B*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
DISSOLVED AND ENTRAINED GASES					
AR-41	CURIES	0.00E+00	0.00E+00	1.34E-05	0.00E+00
XE-131M	CURIES	0.00E+00	0.00E+00	2.84E-05	0.00E+00
XE-133	CURIES	0.00E+00	0.00E+00	4.85E-03	7.53E-03
XE-133M	CURIES	0.00E+00	0.00E+00	6.08E-06	1.88E-05
XE-135	CURIES	0.00E+00	0.00E+00	5.93E-05	1.05E-05
TOTALS	CURIES	0.00E+00	0.00E+00	4.96E-03	7.56E-03
G-ALPHA	CURIES	1.82E-12	2.64E-11	1.45E-05	3.82E-05

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 1-5 for typical minimum detectable concentrations.

TABLE 1-2B*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
H-3	CURIES	8.04E-03	5.87E-02	1.02E+02	1.71E+02
FISSION & ACTIVATION PRODUCTS					
AG-110M	CURIES	0.00E+00	0.00E+00	3.38E-05	1.10E-03
CO-57	CURIES	0.00E+00	0.00E+00	5.57E-05	5.40E-05
CO-58	CURIES	0.00E+00	0.00E+00	1.26E-02	8.10E-03
CO-60	CURIES	0.00E+00	0.00E+00	1.74E-03	3.45E-03
CR-51	CURIES	0.00E+00	0.00E+00	1.03E-03	1.12E-03
CS-134	CURIES	0.00E+00	0.00E+00	1.57E-04	9.63E-04
CS-137	CURIES	0.00E+00	0.00E+00	4.54E-04	2.11E-03
FE-55	CURIES	1.08E-03	1.24E-03	1.56E-03	3.75E-04
FE-59	CURIES	0.00E+00	0.00E+00	2.20E-05	0.00E+00
LA-141	CURIES	0.00E+00	0.00E+00	0.00E+00	1.17E-04
MN-54	CURIES	0.00E+00	0.00E+00	1.52E-04	2.28E-04
NB-95	CURIES	0.00E+00	0.00E+00	1.11E-04	8.96E-05
NB-97	CURIES	0.00E+00	0.00E+00	4.38E-05	1.10E-04
PR-144	CURIES	0.00E+00	0.00E+00	0.00E+00	2.50E-03
RU-103	CURIES	0.00E+00	0.00E+00	2.51E-06	8.05E-06
SB-124	CURIES	0.00E+00	0.00E+00	0.00E+00	6.71E-04
SB-125	CURIES	0.00E+00	0.00E+00	3.39E-03	8.07E-03
SN-113	CURIES	0.00E+00	0.00E+00	1.83E-06	0.00E+00
SR-89	CURIES	9.28E-11	1.02E-10	2.53E-05	4.89E-06
SR-90	CURIES	5.46E-12	5.46E-12	5.72E-07	2.40E-06
SR-92	CURIES	0.00E+00	0.00E+00	5.78E-06	5.12E-06
TE-132	CURIES	0.00E+00	0.00E+00	7.95E-06	0.00E+00
ZN-65	CURIES	0.00E+00	0.00E+00	9.69E-04	6.99E-04
ZR-95	CURIES	0.00E+00	0.00E+00	6.22E-05	3.86E-05
TOTALS	CURIES	1.08E-03	1.24E-03	2.24E-02	2.98E-02

TABLE 1-2B*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
DISSOLVED AND ENTRAINED GASES					
XE-133	CURIES	0.00E+00	0.00E+00	3.53E-03	8.48E-04
XE-135	CURIES	0.00E+00	0.00E+00	2.33E-06	0.00E+00
TOTALS	CURIES	0.00E+00	0.00E+00	3.53E-03	8.48E-04
G-ALPHA	CURIES	1.46E-11	3.46E-11	2.90E-05	8.97E-06

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 1-5 for typical minimum detectable concentrations.

TABLE 1-2C*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: Site
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
H-3	CURIES	9.69E-07	4.86E-03	4.44E+02	3.82E+02
FISSION & ACTIVATION PRODUCTS					
AG-110M	CURIES	0.00E+00	0.00E+00	8.75E-05	2.32E-05
BE-7	CURIES	0.00E+00	0.00E+00	1.73E-05	0.00E+00
CO-57	CURIES	0.00E+00	0.00E+00	6.41E-05	6.00E-05
CO-58	CURIES	0.00E+00	0.00E+00	1.92E-02	2.78E-02
CO-60	CURIES	0.00E+00	0.00E+00	4.69E-03	6.59E-03
CR-51	CURIES	0.00E+00	0.00E+00	1.31E-03	1.27E-03
CS-134	CURIES	0.00E+00	0.00E+00	1.52E-03	8.69E-04
CS-137	CURIES	0.00E+00	0.00E+00	2.64E-03	1.93E-03
FE-55	CURIES	1.96E-03	2.59E-03	2.83E-03	3.45E-03
FE-59	CURIES	0.00E+00	0.00E+00	1.60E-04	1.61E-04
I-131	CURIES	0.00E+00	0.00E+00	0.00E+00	2.22E-06
I-133	CURIES	0.00E+00	0.00E+00	9.88E-07	0.00E+00
MN-54	CURIES	0.00E+00	0.00E+00	5.25E-04	6.18E-04
NA-24	CURIES	0.00E+00	0.00E+00	1.45E-05	1.78E-05
NB-95	CURIES	0.00E+00	0.00E+00	7.58E-05	1.98E-04
NB-97	CURIES	0.00E+00	0.00E+00	4.93E-04	1.37E-04
PR-144	CURIES	0.00E+00	0.00E+00	6.91E-05	0.00E+00
RH-106	CURIES	0.00E+00	0.00E+00	0.00E+00	8.34E-06
RU-103	CURIES	0.00E+00	0.00E+00	0.00E+00	2.06E-06
RU-106	CURIES	0.00E+00	0.00E+00	0.00E+00	8.34E-06
SB-122	CURIES	0.00E+00	0.00E+00	1.21E-05	3.56E-06
SB-124	CURIES	0.00E+00	0.00E+00	0.00E+00	9.06E-04
SB-125	CURIES	0.00E+00	0.00E+00	3.60E-03	9.64E-03
SN-113	CURIES	0.00E+00	0.00E+00	2.91E-06	0.00E+00
SN-117M	CURIES	0.00E+00	0.00E+00	4.90E-07	0.00E+00
SR-89	CURIES	1.11E-10	8.28E-11	2.19E-05	3.44E-05
SR-90	CURIES	1.80E-11	9.09E-12	5.03E-06	7.89E-06
SR-92	CURIES	0.00E+00	0.00E+00	1.56E-05	1.95E-05
TE-125M	CURIES	0.00E+00	0.00E+00	2.38E-04	0.00E+00
ZN-65	CURIES	0.00E+00	0.00E+00	8.66E-04	2.51E-03
ZR-95	CURIES	0.00E+00	0.00E+00	0.00E+00	4.55E-05
TOTALS	CURIES	1.96E-03	2.69E-03	3.85E-02	5.63E-02

TABLE 1-2C*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: Site
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
DISSOLVED AND ENTRAINED GASES					
AR-41	CURIES	0.00E+00	0.00E+00	1.88E-05	0.00E+00
XE-131M	CURIES	0.00E+00	0.00E+00	2.84E-05	0.00E+00
XE-133	CURIES	0.00E+00	0.00E+00	6.98E-03	1.45E-02
XE-133M	CURIES	0.00E+00	0.00E+00	6.08E-06	4.07E-05
XE-135	CURIES	0.00E+00	0.00E+00	9.02E-05	2.38E-05
TOTALS	CURIES	0.00E+00	0.00E+00	7.12E-03	1.45E-02
G-ALPHA	CURIES	4.27E-11	7.37E-11	3.40E-05	5.33E-05

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 1-5 for typical minimum detectable concentrations.

TABLE 1-2C*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: Site
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
H-3	CURIES	8.04E-03	8.40E-02	2.01E+02	2.35E+02
FISSION & ACTIVATION PRODUCTS					
AG-110M	CURIES	0.00E+00	0.00E+00	1.15E-04	7.61E-03
BE-7	CURIES	0.00E+00	0.00E+00	1.29E-05	0.00E+00
CE-144	CURIES	0.00E+00	0.00E+00	0.00E+00	4.06E-06
CO-57	CURIES	0.00E+00	0.00E+00	7.88E-05	2.23E-04
CO-58	CURIES	0.00E+00	0.00E+00	1.80E-02	5.51E-02
CO-60	CURIES	0.00E+00	0.00E+00	5.18E-03	1.06E-02
CR-51	CURIES	0.00E+00	0.00E+00	1.59E-03	1.46E-02
CS-134	CURIES	0.00E+00	0.00E+00	5.21E-04	1.16E-03
CS-137	CURIES	0.00E+00	0.00E+00	1.65E-03	3.52E-03
FE-55	CURIES	1.82E-03	2.20E-03	3.76E-03	2.03E-03
FE-59	CURIES	0.00E+00	0.00E+00	4.57E-05	3.01E-04
I-131	CURIES	0.00E+00	0.00E+00	1.14E-06	0.00E+00
I-133	CURIES	0.00E+00	0.00E+00	0.00E+00	1.05E-05
LA-141	CURIES	0.00E+00	0.00E+00	0.00E+00	1.17E-04
MN-54	CURIES	0.00E+00	0.00E+00	4.16E-04	1.37E-03
NA-24	CURIES	0.00E+00	0.00E+00	0.00E+00	1.06E-05
NB-95	CURIES	0.00E+00	0.00E+00	1.58E-04	1.62E-03
NB-97	CURIES	0.00E+00	0.00E+00	1.05E-04	2.43E-04
PM-149	CURIES	0.00E+00	0.00E+00	1.46E-05	0.00E+00
PR-144	CURIES	0.00E+00	0.00E+00	0.00E+00	2.50E-03
RB-86	CURIES	0.00E+00	0.00E+00	1.22E-05	2.17E-05
RH-106	CURIES	0.00E+00	0.00E+00	0.00E+00	1.62E-05
RU-103	CURIES	0.00E+00	0.00E+00	2.51E-06	1.73E-04
RU-106	CURIES	0.00E+00	0.00E+00	0.00E+00	1.62E-05
SB-122	CURIES	0.00E+00	0.00E+00	2.24E-06	0.00E+00
SB-124	CURIES	0.00E+00	0.00E+00	0.00E+00	1.42E-03
SB-125	CURIES	0.00E+00	0.00E+00	7.38E-03	1.59E-02
SN-113	CURIES	0.00E+00	0.00E+00	1.83E-06	1.21E-04
SR-89	CURIES	1.34E-10	1.16E-10	3.77E-05	3.27E-05
SR-90	CURIES	1.89E-11	1.36E-11	5.57E-06	1.17E-05
SR-92	CURIES	0.00E+00	0.00E+00	1.11E-05	1.16E-05
TC-99M	CURIES	0.00E+00	0.00E+00	6.38E-06	0.00E+00
TE-125M	CURIES	0.00E+00	0.00E+00	1.58E-04	0.00E+00

TABLE 1-2C*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Liquid Effluents
Unit: Site
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDE	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
FISSION & ACTIVATION PRODUCTS					
TE-132	CURIES	0.00E+00	0.00E+00	1.80E-04	0.00E+00
ZN-65	CURIES	0.00E+00	0.00E+00	1.34E-03	1.21E-03
ZR-95	CURIES	0.00E+00	0.00E+00	6.82E-05	1.32E-03
TOTALS	CURIES	1.82E-03	2.20E-03	4.09E-02	1.21E-01
DISSOLVED AND ENTRAINED GASES					
XE-133	CURIES	0.00E+00	0.00E+00	6.96E-03	9.85E-04
XE-135	CURIES	0.00E+00	0.00E+00	9.97E-06	0.00E+00
TOTALS	CURIES	0.00E+00	0.00E+00	6.97E-03	9.85E-04
G-ALPHA	CURIES	4.27E-11	7.46E-11	5.17E-05	4.16E-05

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 1-5 for typical minimum detectable concentrations.

2.6 Radiological Impact

The total body and organ doses for Units 1 and 2 are provided in the following tables in order to show conformance with the limits of ODCM 2.1.3 :

Unit 1 1995 Liquid Doses : Table 1-3A
Unit 2 1995 Liquid Doses : Table 1-3B

TABLE 1-3A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSES TO A MEMBER OF THE PUBLIC DUE TO LIQUID RELEASES
Unit: 1
Starting: 01-Jan-1995 Ending: 30-Jun-1995

Cumulative Doses per Quarter

Organ	ODCM Limit	Units	Quarter 1	% of ODCM Limit	Quarter 2	% of ODCM Limit
Bone	5.0	mrem	2.91E-03	5.82E-02	2.29E-03	4.59E-02
Liver	5.0	mrem	5.64E-03	1.13E-01	4.12E-03	8.25E-02
TBody	1.5	mrem	4.47E-03	2.98E-01	3.30E-03	2.20E-01
Thyroid	5.0	mrem	1.57E-03	3.14E-02	1.38E-03	2.77E-02
Kidney	5.0	mrem	3.07E-03	6.14E-02	2.09E-03	4.19E-02
Lung	5.0	mrem	1.03E-02	2.07E-01	1.64E-02	3.29E-01
GILLI	5.0	mrem	5.57E-03	1.11E-01	6.00E-03	1.20E-01

Cumulative Doses per Year

Organ	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Bone	10.0	mrem	5.21E-03	5.21E-02
Liver	10.0	mrem	9.76E-03	9.76E-02
TBody	3.0	mrem	7.78E-03	2.59E-01
Thyroid	10.0	mrem	2.96E-03	2.96E-02
Kidney	10.0	mrem	5.16E-03	5.16E-02
Lung	10.0	mrem	2.68E-02	2.68E-01
GILLI	10.0	mrem	1.16E-02	1.16E-01

TABLE 1-3A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSES TO A MEMBER OF THE PUBLIC DUE TO LIQUID RELEASES
Unit: 1
Starting: 01-Jul-1995 Ending: 31-Dec-1995

Cumulative Doses per Quarter

Organ	ODCM Limit	Units	Quarter 3	% of ODCM Limit	Quarter 4	% of ODCM Limit
Bone	5.0	mrem	2.54E-03	5.08E-02	2.75E-03	5.50E-02
Liver	5.0	mrem	3.74E-03	7.49E-02	3.80E-03	7.60E-02
TBody	1.5	mrem	2.80E-03	1.87E-01	3.10E-03	2.07E-01
Thyroid	5.0	mrem	7.67E-04	1.53E-02	4.43E-04	8.87E-03
Kidney	5.0	mrem	2.17E-03	4.33E-02	1.29E-03	2.58E-02
Lung	5.0	mrem	2.18E-02	4.37E-01	3.74E-02	7.49E-01
GILLI	5.0	mrem	6.56E-03	1.31E-01	1.26E-02	2.52E-01

Cumulative Doses per Year

Organ	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Bone	10.0	mrem	1.05E-02	1.05E-01
Liver	10.0	mrem	1.73E-02	1.73E-01
TBody	3.0	mrem	1.37E-02	4.56E-01
Thyroid	10.0	mrem	4.17E-03	4.17E-02
Kidney	10.0	mrem	8.62E-03	8.62E-02
Lung	10.0	mrem	8.60E-02	8.60E-01
GILLI	10.0	mrem	3.07E-02	3.07E-01

TABLE 1-3B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSES TO A MEMBER OF THE PUBLIC DUE TO LIQUID RELEASES
Unit: 2
Starting: 01-Jan-1995 Ending: 30-Jun-1995

Cumulative Doses per Quarter

Organ	ODCM Limit	Units	Quarter 1	% of ODCM Limit	Quarter 2	% of ODCM Limit
Bone	5.0	mrem	2.58E-03	5.16E-02	2.23E-03	4.45E-02
Liver	5.0	mrem	5.58E-03	1.12E-01	4.25E-03	8.50E-02
TBody	1.5	mrem	4.46E-03	2.97E-01	3.43E-03	2.29E-01
Thyroid	5.0	mrem	1.68E-03	3.35E-02	1.26E-03	2.52E-02
Kidney	5.0	mrem	2.88E-03	5.77E-02	2.17E-03	4.34E-02
Lung	5.0	mrem	1.13E-02	2.26E-01	2.98E-02	5.95E-01
GILLI	5.0	mrem	3.64E-03	7.27E-02	7.14E-03	1.43E-01

Cumulative Doses per Year

Organ	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Bone	10.0	mrem	4.81E-03	4.81E-02
Liver	10.0	mrem	9.83E-03	9.83E-02
TBody	3.0	mrem	7.89E-03	2.63E-01
Thyroid	10.0	mrem	2.94E-03	2.94E-02
Kidney	10.0	mrem	5.05E-03	5.05E-02
Lung	10.0	mrem	4.10E-02	4.10E-01
GILLI	10.0	mrem	1.08E-02	1.08E-01

TABLE 1-3B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSES TO A MEMBER OF THE PUBLIC DUE TO LIQUID RELEASES
Unit: 2
Starting: 01-Jul-1995 Ending: 31-Dec-1995

Cumulative Doses per Quarter

Organ	ODCM Limit	Units	Quarter 3	% of ODCM Limit	Quarter 4	% of ODCM Limit
Bone	5.0	mrem	1.29E-03	2.59E-02	3.71E-03	7.42E-02
Liver	5.0	mrem	2.18E-03	4.36E-02	6.36E-03	1.27E-01
TBody	1.5	mrem	1.72E-03	1.15E-01	5.01E-03	3.34E-01
Thyroid	5.0	mrem	6.93E-04	1.39E-02	1.19E-03	2.38E-02
Kidney	5.0	mrem	1.09E-03	2.18E-02	2.83E-03	5.67E-02
Lung	5.0	mrem	1.65E-02	3.29E-01	4.08E-02	8.15E-01
GILLI	5.0	mrem	4.17E-03	8.34E-02	7.70E-03	1.54E-01

Cumulative Doses per Year

Organ	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Bone	10.0	mrem	9.81E-03	9.81E-02
Liver	10.0	mrem	1.84E-02	1.84E-01
TBody	3.0	mrem	1.46E-02	4.87E-01
Thyroid	10.0	mrem	4.82E-03	4.82E-02
Kidney	10.0	mrem	8.98E-03	8.98E-02
Lung	10.0	mrem	9.83E-02	9.83E-01
GILLI	10.0	mrem	2.26E-02	2.26E-01

TABLE 1-5
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
TYPICAL LIQUID MDC'S ACHIEVED ON COUNTING SYSTEM

Nuclide	MDC(uCi/ML)
MN-54	3.14E-08
CO-58	4.92E-08
FE-59	7.19E-08
CO-60	4.77E-08
ZN-65	8.11E-08
MO-99	1.29E-07
I-131	2.53E-08
CS-134	3.51E-08
CS-137	4.28E-08
CE-141	5.41E-08
CE-144	1.95E-07

3.0 GASEOUS EFFLUENTS

This section contains applicable ODCM limits for gaseous effluents as well as the quantities of radioactive gaseous effluents released during 1995. These quantities are summarized on a quarterly basis and include any unplanned releases. Tabulations are provided of the offsite air doses calculated in accordance with ODCM 3.4.2 to show conformance with the limits of ODCM 3.1.3, and the offsite organ doses to a member of the public calculated in accordance with ODCM 3.4.3 to show conformance with ODCM 3.1.4.

3.1 ODCM Limits

In accordance with Technical Specifications 6.8.3.e(v) and 6.8.3.e(viii), the air dose due to noble gases released in gaseous effluents, from each reactor unit, to areas at and beyond the SITE BOUNDARY (see ODCM Figure 10-1) shall be limited to the following:

a. During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation, and

b. During any calendar year: Less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

In accordance with Technical Specifications 6.8.3.e(v) and 6.8.3.e(ix), the dose to a MEMBER OF THE PUBLIC from I-131, I-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released, from each reactor unit, to areas at and beyond the SITE BOUNDARY (see ODCM Figure 10-1) shall be limited to the following:

a. During any calendar quarter: Less than or equal to 7.5 mrem to any organ, and

b. During any calendar year: Less than or equal to 15 mrem to any organ.

3.2 Measurements and Approximation of Total Radioactivity

The following noble gases are considered in evaluating gaseous effluents:

KR-87	XE-133
KR-88	XE-135
XE-133M	XE-138

The following radioiodines and radioactive materials in particulate form are specifically considered in evaluating gaseous effluents:

MN-54	MO-99
FE-59	I-131
CO-58	CS-134
CO-60	CS-137
ZN-65	CE-141
SR-89	CE-144
SR-90	H-3

Periodic grab samples from plant effluent streams are analyzed by a computerized pulse height analyzer system utilizing high resolution germanium detectors. Samples are obtained and analyzed in accordance with ODCM Table 3-3. Isotopic values thus obtained are used for release rate calculations as specified in ODCM 3.4.2 and ODCM 3.4.3. Only those nuclides which are detected are used in calculations. For radioiodines and particulates, in addition to the nuclides listed above other nuclides with half-lives greater than 8 days which are identified are also considered.

Continuous Releases: Continuous sampling is performed on the continuous releases points (i.e. the Plant Vent Stack, Containment Purge, and the Turbine Building Vent). Particulate material is collected by filtration. Periodically these filters are removed and analyzed on the pulse height analyzer to identify and quantify radioactive materials collected on the filters. Particulate filters are then analyzed for gross alpha and strontium as required. Gross alpha determinations are made using a 2 pi gas flow proportional counter. SR-89 and SR-90 values are obtained by chemical separation and subsequent analysis using 2 pi gas flow proportional counters.

Batch Releases: The processing of batch type releases (from Containment or Waste Gas Decay Tanks) is analogous to continuous releases, except that the release is not commenced until samples have been obtained and analyzed.

The maximum errors associated with monitor readings, sample flow, vent flow, sample collection, monitor calibration and laboratory procedure are collectively estimated to be:

Fission and Activation Gases	Iodine	Particulates	Tritium
75%	60%	50%	45%

The average error associated with counting is estimated to be:

Fission and Activation Gases	Iodine	Particulates	Tritium
19%	28%	20%	8%

3.3 Abnormal Releases

An abnormal release occurred on Unit 1 during the first half of 1995. On June 12, following a June 11 Reactor Trip, the Atmospheric Relief Valves opened while a small (0.11 GPD) primary to secondary leak was present. This release is documented in Chemistry Incident Report # 1-95-009.

Abnormal release information for Units 1 and 2 is summarized in the following tables:

Unit 1 1995 Gaseous Abnormal Releases : Table 2-8A
Unit 2 1995 Gaseous Abnormal Releases : Table 2-8B

3.4 Batch Releases

Batch release information for Units 1 and 2 is summarized in the following tables:

Unit 1 1995 Gaseous Batch Releases : Table 2-6A
Unit 2 1995 Gaseous Batch Releases : Table 2-6B

TABLE 2-8A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Abnormal Release Summary
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

GASEOUS RELEASES			
NUMBER OF RELEASES	:	1	
TOTAL TIME FOR ALL RELEASES	:	673.00	MINUTES
MAXIMUM TIME FOR A RELEASE	:	673.00	MINUTES
AVERAGE TIME FOR A RELEASE	:	673.00	MINUTES
MINIMUM TIME FOR A RELEASE	:	673.00	MINUTES
TOTAL ACTIVITY FOR ALL RELEASES	:	1.41E-02	CURIES

TABLE 2-8A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Abnormal Release Summary
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

GASEOUS RELEASES			
NUMBER OF RELEASES	:	0	
TOTAL TIME FOR ALL RELEASES	:	0.00	MINUTES
MAXIMUM TIME FOR A RELEASE	:	0.00	MINUTES
AVERAGE TIME FOR A RELEASE	:	0.00	MINUTES
MINIMUM TIME FOR A RELEASE	:	0.00	MINUTES
TOTAL ACTIVITY FOR ALL RELEASES	:	0.00E+00	CURIES

TABLE 2-8B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Abnormal Release Summary
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

GASEOUS RELEASES

NUMBER OF RELEASES	:	0	
TOTAL TIME FOR ALL RELEASES	:	0.00	MINUTES
MAXIMUM TIME FOR A RELEASE	:	0.00	MINUTES
AVERAGE TIME FOR A RELEASE	:	0.00	MINUTES
MINIMUM TIME FOR A RELEASE	:	0.00	MINUTES
TOTAL ACTIVITY FOR ALL RELEASES	:	0.00E+00	CURIES

TABLE 2-8B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Abnormal Release Summary
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

GASEOUS RELEASES			
NUMBER OF RELEASES	:	0	
TOTAL TIME FOR ALL RELEASES	:	0.00	MINUTES
MAXIMUM TIME FOR A RELEASE	:	0.00	MINUTES
AVERAGE TIME FOR A RELEASE	:	0.00	MINUTES
MINIMUM TIME FOR A RELEASE	:	0.00	MINUTES
TOTAL ACTIVITY FOR ALL RELEASES	:	0.00E+00	CURIES

TABLE 2-6A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Batch Release Summary
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

GASEOUS RELEASES

NUMBER OF BATCH RELEASES	:	2	
TOTAL TIME PERIOD FOR BATCH RELEASES	:	604.00	MINUTES
MAXIMUM TIME PERIOD FOR A BATCH RELEASE	:	399.00	MINUTES
AVERAGE TIME PERIOD FOR BATCH RELEASES	:	302.00	MINUTES
MINIMUM TIME FOR A BATCH RELEASE	:	205.00	MINUTES

TABLE 2-6A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Batch Release Summary
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

GASEOUS RELEASES			
NUMBER OF BATCH RELEASES	:	11	
TOTAL TIME PERIOD FOR BATCH RELEASES	:	3809.00	MINUTES
MAXIMUM TIME PERIOD FOR A BATCH RELEASE	:	443.00	MINUTES
AVERAGE TIME PERIOD FOR BATCH RELEASES	:	346.27	MINUTES
MINIMUM TIME FOR A BATCH RELEASE	:	109.00	MINUTES

TABLE 2-6B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Batch Release Summary
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

GASEOUS RELEASES

NUMBER OF BATCH RELEASES	:	17	
TOTAL TIME PERIOD FOR BATCH RELEASES	:	6761.00	MINUTES
MAXIMUM TIME PERIOD FOR A BATCH RELEASE	:	660.00	MINUTES
AVERAGE TIME PERIOD FOR BATCH RELEASES	:	397.71	MINUTES
MINIMUM TIME FOR A BATCH RELEASE	:	185.00	MINUTES

TABLE 2-6B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Batch Release Summary
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

GASEOUS RELEASES			
NUMBER OF BATCH RELEASES	:	7	
TOTAL TIME PERIOD FOR BATCH RELEASES	:	1916.00	MINUTES
MAXIMUM TIME PERIOD FOR A BATCH RELEASE	:	468.00	MINUTES
AVERAGE TIME PERIOD FOR BATCH RELEASES	:	273.71	MINUTES
MINIMUM TIME FOR A BATCH RELEASE	:	131.00	MINUTES

3.5 Release Summaries

This section contains the summaries of all radioactive gaseous effluents released for Units 1 and 2 during 1995. Typical gaseous Miniumum Detectable Concentrations (MDC'S) for analyses are in Table 2-7 of this section. Regulatory Guide 1.21 Table 1A is found in this report as Tables 2-1A, 2-1B, and 2-1C. Regulatory Guide 1.21 Table 1B is found in this report as Tables 2-2A, 2-2B, and 2-2C. Regulatory Guide 1.21 Table 1C is found in this report as Tables 2-3A, 2-3B, and 2-3C.

3.5.1 Gaseous Effluents - Summation of All Releases

The summations of all gaseous effluent releases are contained in the following tables:

Unit 1 1995 Summation of All Releases : Table 2-1A
Unit 2 1995 Summation of All Releases : Table 2-1B
Site 1995 Summation of All Releases : Table 2-1C

TABLE 2-1A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Summation of All Releases
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

TYPE OF EFFLUENT	UNITS	QUARTER 1	QUARTER 2	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE	CURIES	8.19E+00	2.32E+01	9.40E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	1.05E+00	2.94E+00	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. RADIOIODINES				
1. TOTAL IODINE-131	CURIES	6.07E-06	3.94E-05	8.80E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	7.81E-07	5.01E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. PARTICULATES				
1. PARTICULATES(HALF-LIVES>8 DAYS)	CURIES	0.00E+00	2.31E-08	7.00E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	0.00E+00	2.94E-09	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
4. GROSS ALPHA RADIOACTIVITY	CURIES	5.55E-17	7.91E-08	
D. TRITIUM				
1. TOTAL RELEASE	CURIES	3.42E+00	2.42E+00	5.30E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	4.39E-01	3.08E-01	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	

* Applicable limits are expressed in terms of dose. See Tables 2-4A, 2-4B, 2-5A, and 2-5B of this report.

TABLE 2-1A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Summation of All Releases
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

TYPE OF EFFLUENT	UNITS	QUARTER 3	QUARTER 4	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE	CURIES	1.98E+01	2.98E+00	9.40E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	2.49E+00	3.75E-01	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. RADIOIODINES				
1. TOTAL IODINE-131	CURIES	3.33E-05	4.48E-05	8.80E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	4.19E-06	5.64E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. PARTICULATES				
1. PARTICULATES(HALF-LIVES>8 DAYS)	CURIES	3.38E-06	1.29E-05	7.00E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	4.25E-07	1.63E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
4. GROSS ALPHA RADIOACTIVITY	CURIES	4.12E-08	1.18E-07	
D. TRITIUM				
1. TOTAL RELEASE	CURIES	5.77E+00	8.20E+00	5.30E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	7.26E-01	1.03E+00	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	

* Applicable limits are expressed in terms of dose. See Tables 2-4A, 2-4B, 2-5A, and 2-5B of this report.

TABLE 2-1B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Summation of All Releases
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

TYPE OF EFFLUENT	UNITS	QUARTER 1	QUARTER 2	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE	CURIES	4.05E+00	8.63E-01	9.40E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	5.21E-01	1.10E-01	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. RADIOIODINES				
1. TOTAL IODINE-131	CURIES	1.28E-07	0.00E+00	8.80E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	1.65E-08	0.00E+00	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. PARTICULATES				
1. PARTICULATES(HALF-LIVES>8 DAYS)	CURIES	2.39E-09	4.58E-07	7.00E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	3.07E-10	5.82E-08	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
4. GROSS ALPHA RADIOACTIVITY	CURIES	1.96E-07	8.79E-07	
D. TRITIUM				
1. TOTAL RELEASE	CURIES	2.93E+00	4.52E+00	5.30E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	3.77E-01	5.75E-01	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	

* Applicable limits are expressed in terms of dose. See Tables 2-4A, 2-4B, 2-5A, and 2-5B of this report.

TABLE 2-1B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Summation of All Releases
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

TYPE OF EFFLUENT	UNITS	QUARTER 3	QUARTER 4	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE	CURIES	5.46E+00	8.10E+00	9.40E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	6.87E-01	1.02E+00	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. RADIOIODINES				
1. TOTAL IODINE-131	CURIES	0.00E+00	0.00E+00	8.80E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	0.00E+00	0.00E+00	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. PARTICULATES				
1. PARTICULATES(HALF-LIVES>8 DAYS)	CURIES	1.81E-07	6.93E-06	7.00E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	2.28E-08	8.72E-07	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
4. GROSS ALPHA RADIOACTIVITY	CURIES	2.76E-07	4.49E-07	
D. TRITIUM				
1. TOTAL RELEASE	CURIES	5.47E+00	5.53E+00	5.30E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	6.88E-01	6.95E-01	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	

* Applicable limits are expressed in terms of dose. See Tables 2-4A, 2-4B, 2-5A, and 2-5B of this report.

TABLE 2-1C
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Summation of All Releases
Unit: Site
Starting : 1-Jan-1995 Ending : 30-Jun-1995

TYPE OF EFFLUENT	UNITS	QUARTER 1	QUARTER 2	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE	CURIES	1.22E+01	2.40E+01	9.40E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	1.57E+00	3.05E+00	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. RADIOIODINES				
1. TOTAL IODINE-131	CURIES	6.20E-06	3.94E-05	8.80E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	7.97E-07	5.01E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. PARTICULATES				
1. PARTICULATES(HALF-LIVES>8 DAYS)	CURIES	2.39E-09	4.81E-07	7.00E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	3.07E-10	6.11E-08	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
4. GROSS ALPHA RADIOACTIVITY	CURIES	1.96E-07	9.58E-07	
D. TRITIUM				
1. TOTAL RELEASE	CURIES	6.35E+00	6.94E+00	5.30E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	8.17E-01	8.83E-01	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	

* Applicable limits are expressed in terms of dose. See Tables 2-4A, 2-4B, 2-5A, and 2-5B of this report.

TABLE 2-1C
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents - Summation of All Releases
Unit: Site
Starting : 1-Jul-1995 Ending : 31-Dec-1995

TYPE OF EFFLUENT	UNITS	QUARTER 3	QUARTER 4	EST. TOT ERROR %
A. FISSION & ACTIVATION PRODUCTS				
1. TOTAL RELEASE	CURIES	2.53E+01	1.11E+01	9.40E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	3.18E+00	1.39E+00	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
B. RADIOIODINES				
1. TOTAL IODINE-131	CURIES	3.33E-05	4.48E-05	8.80E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	4.19E-06	5.64E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
C. PARTICULATES				
1. PARTICULATES(HALF-LIVES>8 DAYS)	CURIES	3.56E-06	1.99E-05	7.00E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	4.48E-07	2.50E-06	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	
4. GROSS ALPHA RADIOACTIVITY	CURIES	3.17E-07	5.67E-07	
D. TRITIUM				
1. TOTAL RELEASE	CURIES	1.12E+01	1.37E+01	5.30E+01
2. AVERAGE RELEASE RATE FOR PERIOD	uCi/Sec	1.41E+00	1.73E+00	
3. PERCENT OF APPLICABLE LIMIT	%	*	*	

* Applicable limits are expressed in terms of dose. See Tables 2-4A, 2-4B, 2-5A, and 2-5B of this report.

3.5.2 Gaseous Effluents - Mixed Mode Releases

The summaries of all gaseous effluent mixed mode releases (includes listing by nuclide) are contained in the following tables :

Unit 1 1995 Mixed Mode Summary : Table 2-2A
Unit 2 1995 Mixed Mode Summary : Table 2-2B
Site 1995 Mixed Mode Summary : Table 2-2C

TABLE 2-2A*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Mixed-Mode Level Releases
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
FISSION GASES					
AR-41	CURIES	5.06E+00	6.92E+00	0.00E+00	0.00E+00
XE-135	CURIES	2.12E+00	6.29E+00	4.05E-06	6.98E-04
XE-133	CURIES	1.00E+00	9.92E+00	0.00E+00	5.89E-03
KR-85	CURIES	0.00E+00	0.00E+00	4.49E-03	1.73E-02
TOTAL FOR PERIOD	CURIES	8.19E+00	2.31E+01	4.49E-03	2.39E-02
IODINES					
I-133	CURIES	1.29E-04	1.32E-06	0.00E+00	0.00E+00
I-131	CURIES	6.07E-06	1.46E-06	0.00E+00	0.00E+00
TOTAL FOR PERIOD	CURIES	1.35E-04	2.78E-06	0.00E+00	0.00E+00
PARTICULATES					
Y-88	CURIES	0.00E+00	0.00E+00	0.00E+00	1.99E-08
SN-113	CURIES	0.00E+00	0.00E+00	0.00E+00	3.21E-09
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	2.31E-08
H-3	CURIES	3.42E+00	2.41E+00	0.00E+00	0.00E+00
G-ALPHA	CURIES	5.55E-17	7.91E-08	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-2A*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Mixed-Mode Level Releases
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
FISSION GASES					
AR-41	CURIES	7.87E+00	2.98E+00	0.00E+00	0.00E+00
XE-135	CURIES	4.60E+00	0.00E+00	5.56E-05	8.12E-05
XE-133M	CURIES	0.00E+00	0.00E+00	8.60E-04	0.00E+00
XE-133	CURIES	6.99E+00	0.00E+00	3.49E-01	1.44E-03
XE-131M	CURIES	0.00E+00	0.00E+00	3.56E-03	0.00E+00
KR-85	CURIES	0.00E+00	0.00E+00	9.76E-03	1.20E-03
TOTAL FOR PERIOD	CURIES	1.95E+01	2.98E+00	3.64E-01	2.72E-03
IODINES					
I-133	CURIES	1.02E-05	1.02E-04	0.00E+00	3.07E-08
I-131	CURIES	1.29E-05	4.48E-05	2.03E-05	2.50E-08
TOTAL FOR PERIOD	CURIES	2.32E-05	1.47E-04	2.03E-05	5.57E-08
PARTICULATES					
SN-117M	CURIES	0.00E+00	0.00E+00	2.40E-10	0.00E+00
CR-51	CURIES	0.00E+00	1.84E-06	0.00E+00	0.00E+00
NB-95	CURIES	0.00E+00	2.48E-07	0.00E+00	0.00E+00
RU-103	CURIES	0.00E+00	8.68E-08	0.00E+00	0.00E+00
CO-58	CURIES	8.32E-07	8.56E-06	5.97E-07	0.00E+00
SN-113	CURIES	0.00E+00	1.04E-07	1.95E-06	7.69E-09
CO-60	CURIES	0.00E+00	2.10E-06	0.00E+00	0.00E+00
TOTAL FOR PERIOD	CURIES	8.32E-07	1.29E-05	2.55E-06	7.69E-09
H-3	CURIES	5.77E+00	8.20E+00	0.00E+00	0.00E+00
G-ALPHA	CURIES	4.12E-08	1.18E-07	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-2B*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Mixed-Mode Level Releases
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
FISSION GASES					
AR-41	CURIES	3.85E+00	8.62E-01	0.00E+00	0.00E+00
XE-135	CURIES	9.94E-02	0.00E+00	0.00E+00	0.00E+00
XE-133	CURIES	9.88E-02	0.00E+00	8.72E-04	1.23E-03
TOTAL FOR PERIOD	CURIES	4.05E+00	8.62E-01	8.72E-04	1.23E-03
IODINES					
I-131	CURIES	1.28E-07	0.00E+00	0.00E+00	0.00E+00
TOTAL FOR PERIOD	CURIES	1.28E-07	0.00E+00	0.00E+00	0.00E+00
PARTICULATES					
FE-59	CURIES	0.00E+00	0.00E+00	0.00E+00	3.51E-08
CO-58	CURIES	0.00E+00	0.00E+00	2.39E-09	3.71E-07
CO-57	CURIES	0.00E+00	0.00E+00	0.00E+00	2.52E-09
CO-60	CURIES	0.00E+00	0.00E+00	0.00E+00	3.10E-08
CS-137	CURIES	0.00E+00	0.00E+00	0.00E+00	1.78E-08
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	2.39E-09	4.58E-07
H-3	CURIES	2.93E+00	4.52E+00	0.00E+00	0.00E+00
G-ALPHA	CURIES	1.96E-07	8.79E-07	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-2B*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Mixed-Mode Level Releases
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
FISSION GASES					
AR-41	CURIES	5.40E+00	8.09E+00	0.00E+00	6.50E-04
KR-85M	CURIES	0.00E+00	0.00E+00	0.00E+00	1.45E-04
XE-135	CURIES	0.00E+00	0.00E+00	5.82E-05	4.20E-03
XE-133M	CURIES	0.00E+00	0.00E+00	4.38E-04	0.00E+00
XE-133	CURIES	0.00E+00	0.00E+00	3.28E-02	7.35E-03
TOTAL FOR PERIOD	CURIES	5.40E+00	8.09E+00	3.33E-02	1.23E-02
IODINES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PARTICULATES					
CO-58	CURIES	1.81E-07	2.41E-07	0.00E+00	0.00E+00
Y-88	CURIES	0.00E+00	0.00E+00	0.00E+00	6.69E-06
TOTAL FOR PERIOD	CURIES	1.81E-07	2.41E-07	0.00E+00	6.69E-06
H-3	CURIES	5.47E+00	5.53E+00	0.00E+00	0.00E+00
G-ALPHA	CURIES	2.76E-07	4.49E-07	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-2C*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Mixed-Mode Level Releases
Unit: Site
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
FISSION GASES					
AR-41	CURIES	8.91E+00	7.79E+00	0.00E+00	0.00E+00
XE-135	CURIES	2.22E+00	6.29E+00	4.05E-06	6.98E-04
XE-133	CURIES	1.10E+00	9.92E+00	8.72E-04	7.12E-03
KR-85	CURIES	0.00E+00	0.00E+00	4.49E-03	1.73E-02
TOTAL FOR PERIOD	CURIES	1.22E+01	2.40E+01	5.37E-03	2.51E-02
IODINES					
I-133	CURIES	1.29E-04	1.32E-06	0.00E+00	0.00E+00
I-131	CURIES	6.20E-06	1.46E-06	0.00E+00	0.00E+00
TOTAL FOR PERIOD	CURIES	1.35E-04	2.78E-06	0.00E+00	0.00E+00
PARTICULATES					
FE-59	CURIES	0.00E+00	0.00E+00	0.00E+00	3.51E-08
CO-58	CURIES	0.00E+00	0.00E+00	2.39E-09	3.71E-07
Y-88	CURIES	0.00E+00	0.00E+00	0.00E+00	1.99E-08
SN-113	CURIES	0.00E+00	0.00E+00	0.00E+00	3.21E-09
CO-57	CURIES	0.00E+00	0.00E+00	0.00E+00	2.52E-09
CO-60	CURIES	0.00E+00	0.00E+00	0.00E+00	3.10E-08
CS-137	CURIES	0.00E+00	0.00E+00	0.00E+00	1.78E-08
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	2.39E-09	4.81E-07
H-3	CURIES	6.35E+00	6.93E+00	0.00E+00	0.00E+00
G-ALPHA	CURIES	1.96E-07	9.58E-07	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-2C*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Mixed-Mode Level Releases
Unit: Site
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
FISSION GASES					
AR-41	CURIES	1.33E+01	1.11E+01	0.00E+00	6.50E-04
KR-85M	CURIES	0.00E+00	0.00E+00	0.00E+00	1.45E-04
XE-135	CURIES	4.60E+00	0.00E+00	1.14E-04	4.28E-03
XE-133M	CURIES	0.00E+00	0.00E+00	1.30E-03	0.00E+00
XE-133	CURIES	6.99E+00	0.00E+00	3.82E-01	8.79E-03
XE-131M	CURIES	0.00E+00	0.00E+00	3.56E-03	0.00E+00
KR-85	CURIES	0.00E+00	0.00E+00	9.76E-03	1.20E-03
TOTAL FOR PERIOD	CURIES	2.49E+01	1.11E+01	3.97E-01	1.51E-02
IODINES					
I-133	CURIES	1.02E-05	1.02E-04	0.00E+00	3.07E-08
I-131	CURIES	1.29E-05	4.48E-05	2.03E-05	2.50E-08
TOTAL FOR PERIOD	CURIES	2.32E-05	1.47E-04	2.03E-05	5.57E-08
PARTICULATES					
SN-117M	CURIES	0.00E+00	0.00E+00	2.40E-10	0.00E+00
CR-51	CURIES	0.00E+00	1.84E-06	0.00E+00	0.00E+00
NB-95	CURIES	0.00E+00	2.48E-07	0.00E+00	0.00E+00
RU-103	CURIES	0.00E+00	8.68E-08	0.00E+00	0.00E+00
CO-58	CURIES	1.01E-06	8.80E-06	5.97E-07	0.00E+00
Y-88	CURIES	0.00E+00	0.00E+00	0.00E+00	6.69E-06
SN-113	CURIES	0.00E+00	1.04E-07	1.95E-06	7.69E-09
CO-60	CURIES	0.00E+00	2.10E-06	0.00E+00	0.00E+00
TOTAL FOR PERIOD	CURIES	1.01E-06	1.32E-05	2.55E-06	6.70E-06
H-3	CURIES	1.12E+01	1.37E+01	0.00E+00	0.00E+00
G-ALPHA	CURIES	3.17E-07	5.67E-07	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

3.5.3 Gaseous Effluents - Ground Mode Releases

The summaries of all gaseous effluent ground mode releases (includes listing by nuclide) are contained in the following tables :

Unit 1 1995 Ground Mode Summary : Table 2-3A
Unit 2 1995 Ground Mode Summary : Table 2-3B
Site 1995 Ground Mode Summary : Table 2-3C

TABLE 2-3A*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Ground Level Releases
Unit: 1
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
FISSION GASES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
IODINES					
I-133	CURIES	0.00E+00	0.00E+00	0.00E+00	5.59E-05
I-131	CURIES	0.00E+00	0.00E+00	0.00E+00	3.80E-05
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	9.39E-05
PARTICULATES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	CURIES	3.77E-04	1.93E-04	0.00E+00	1.40E-02

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-3A*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Ground Level Releases
Unit: 1
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
FISSION GASES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
IODINES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PARTICULATES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	CURIES	1.31E-04	5.58E-04	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-3B*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Ground Level Releases
Unit: 2
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
FISSION GASES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
IODINES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PARTICULATES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	CURIES	1.57E-04	3.63E-04	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-3B*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Ground Level Releases
Unit: 2
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
FISSION GASES					
XE-135	CURIES	2.53E-02	0.00E+00	0.00E+00	0.00E+00
TOTAL FOR PERIOD	CURIES	2.53E-02	0.00E+00	0.00E+00	0.00E+00
IODINES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PARTICULATES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	CURIES	1.65E-03	7.60E-05	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-3C*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Ground Level Releases
Unit: Site
Starting : 1-Jan-1995 Ending : 30-Jun-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
FISSION GASES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
IODINES					
I-133	CURIES	0.00E+00	0.00E+00	0.00E+00	5.59E-05
I-131	CURIES	0.00E+00	0.00E+00	0.00E+00	3.80E-05
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	9.39E-05
PARTICULATES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	CURIES	5.34E-04	5.56E-04	0.00E+00	1.40E-02

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

TABLE 2-3C*
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
Gaseous Effluents-Ground Level Releases
Unit: Site
Starting : 1-Jul-1995 Ending : 31-Dec-1995

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES RELEASED	UNIT	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
FISSION GASES					
XE-135	CURIES	2.53E-02	0.00E+00	0.00E+00	0.00E+00
TOTAL FOR PERIOD	CURIES	2.53E-02	0.00E+00	0.00E+00	0.00E+00
IODINES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PARTICULATES					
TOTAL FOR PERIOD	CURIES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
H-3	CURIES	1.78E-03	6.34E-04	0.00E+00	0.00E+00

* Zeroes in this table indicate that no radioactivity was present at detectable levels. See Table 2-7 for typical minimum detectable concentrations.

3.6 Radiological Impact

The air doses and organ doses due to gaseous effluents for Units 1 and 2 are provided in the following tables in order to show conformance with the limits of ODCM 3.1.3 and ODCM 3.1.4 :

Unit 1 1995 Air Doses : Table 2-4A
Unit 2 1995 Air Doses : Table 2-4B
Unit 1 1995 Organ Doses : Table 2-5A
Unit 2 1995 Organ Doses : Table 2-5B

TABLE 2-4A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
AIR DOSES DUE TO GASEOUS RELEASES
Unit: 1
Starting: 01-Jan-1995 Ending: 30-Jun-1995

Cumulative Doses per Quarter

Type of Radiation	ODCM Limit	Units	Quarter 1	% of ODCM Limit	Quarter 2	% of ODCM Limit
Gamma	5.0	mrad	1.76E-03	3.53E-02	2.74E-03	5.48E-02
Beta	10.0	mrad	7.84E-04	7.84E-03	1.67E-03	1.67E-02

Cumulative Doses per Year

Type of Radiation	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Gamma	10.0	mrad	4.50E-03	4.50E-02
Beta	20.0	mrad	2.45E-03	1.22E-02

TABLE 2-4A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
AIR DOSES DUE TO GASEOUS RELEASES
Unit: 1
Starting: 01-Jul-1995 Ending: 31-Dec-1995

Cumulative Doses per Quarter

Type of Radiation	ODCM Limit	Units	Quarter 3	% of ODCM Limit	Quarter 4	% of ODCM Limit
Gamma	5.0	mrad	2.90E-03	5.79E-02	9.49E-04	1.90E-02
Beta	10.0	mrad	1.54E-03	1.54E-02	3.35E-04	3.35E-03

Cumulative Doses per Year

Type of Radiation	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Gamma	10.0	mrad	8.35E-03	8.35E-02
Beta	20.0	mrad	4.32E-03	2.16E-02

TABLE 2-4B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
AIR DOSES DUE TO GASEOUS RELEASES
Unit: 2
Starting: 01-Jan-1995 Ending: 30-Jun-1995

Cumulative Doses per Quarter

Type of Radiation	ODCM Limit	Units	Quarter 1	% of ODCM Limit	Quarter 2	% of ODCM Limit
Gamma	5.0	mrad	1.23E-03	2.47E-02	2.74E-04	5.49E-03
Beta	10.0	mrad	4.44E-04	4.44E-03	9.68E-05	9.68E-04

Cumulative Doses per Year

Type of Radiation	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Gamma	10.0	mrad	1.51E-03	1.51E-02
Beta	20.0	mrad	5.41E-04	2.71E-03

TABLE 2-4B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
AIR DOSES DUE TO GASEOUS RELEASES
Unit: 2
Starting: 01-Jul-1995 Ending: 31-Dec-1995

Cumulative Doses per Quarter

Type of Radiation	ODCM Limit	Units	Quarter 3	% of ODCM Limit	Quarter 4	% of ODCM Limit
Gamma	5.0	mrad	1.79E-03	3.59E-02	2.58E-03	5.15E-02
Beta	10.0	mrad	7.03E-04	7.03E-03	9.09E-04	9.09E-03

Cumulative Doses per Year

Type of Radiation	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Gamma	10.0	mrad	5.88E-03	5.88E-02
Beta	20.0	mrad	2.15E-03	1.08E-02

TABLE 2-5A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSES TO A MEMBER OF THE PUBLIC DUE TO RADIOIODINES, TRITIUM, AND PARTICULATES IN GASEOUS RELEASES
Unit: 1
Starting: 01-Jan-1995 Ending: 30-Jun-1995

Cumulative Doses per Quarter

Organ	ODCM Limit	Unit	Quarter 1	% of ODCM Limit	Quarter 2	% of ODCM Limit
Bone	7.5	mrem	6.76E-07	9.01E-06	6.75E-06	9.00E-05
Liver	7.5	mrem	4.68E-04	6.24E-03	3.57E-04	4.76E-03
TBody	7.5	mrem	4.67E-04	6.23E-03	3.54E-04	4.72E-03
Thyroid	7.5	mrem	6.24E-04	8.32E-03	2.33E-03	3.11E-02
Kidney	7.5	mrem	4.68E-04	6.24E-03	3.61E-04	4.81E-03
Lung	7.5	mrem	4.67E-04	6.23E-03	3.51E-04	4.68E-03
GILLI	7.5	mrem	4.67E-04	6.23E-03	3.51E-04	4.68E-03

Cumulative Doses per Year

Organ	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Bone	15.0	mrem	7.42E-06	4.95E-05
Liver	15.0	mrem	8.25E-04	5.50E-03
TBody	15.0	mrem	8.22E-04	5.48E-03
Thyroid	15.0	mrem	2.95E-03	1.97E-02
Kidney	15.0	mrem	8.29E-04	5.53E-03
Lung	15.0	mrem	8.18E-04	5.45E-03
GILLI	15.0	mrem	8.19E-04	5.46E-03

TABLE 2-5A
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSES TO A MEMBER OF THE PUBLIC DUE TO RADIOIODINES, TRITIUM, AND PARTICULATES IN GASEOUS RELEASES
Unit: 1
Starting: 01-Jul-1995 Ending: 31-Dec-1995

Cumulative Doses per Quarter

Organ	ODCM Limit	Unit	Quarter 3	% of ODCM Limit	Quarter 4	% of ODCM Limit
Bone	7.5	mrem	2.20E-06	2.94E-05	1.91E-05	2.54E-04
Liver	7.5	mrem	7.90E-04	1.05E-02	1.14E-03	1.52E-02
TBody	7.5	mrem	7.89E-04	1.05E-02	1.14E-03	1.52E-02
Thyroid	7.5	mrem	1.39E-03	1.86E-02	1.98E-03	2.64E-02
Kidney	7.5	mrem	7.91E-04	1.06E-02	1.14E-03	1.52E-02
Lung	7.5	mrem	7.88E-04	1.05E-02	1.14E-03	1.52E-02
GILLI	7.5	mrem	7.89E-04	1.05E-02	1.14E-03	1.52E-02

Cumulative Doses per Year

Organ	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Bone	15.0	mrem	2.87E-05	1.91E-04
Liver	15.0	mrem	2.75E-03	1.84E-02
TBody	15.0	mrem	2.75E-03	1.83E-02
Thyroid	15.0	mrem	6.33E-03	4.22E-02
Kidney	15.0	mrem	2.76E-03	1.84E-02
Lung	15.0	mrem	2.74E-03	1.83E-02
GILLI	15.0	mrem	2.75E-03	1.83E-02

TABLE 2-5B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSES TO A MEMBER OF THE PUBLIC DUE TO RADIOIODINES, TRITIUM, AND PARTICULATES IN GASEOUS RELEASES
Unit: 2
Starting: 01-Jan-1995 Ending: 30-Jun-1995

Cumulative Doses per Quarter

Organ	ODCM Limit	Unit	Quarter 1	% of ODCM Limit	Quarter 2	% of ODCM Limit
Bone	7.5	mrem	8.00E-09	1.07E-07	4.92E-07	6.56E-06
Liver	7.5	mrem	4.01E-04	5.34E-03	6.18E-04	8.24E-03
TBody	7.5	mrem	4.01E-04	5.34E-03	6.18E-04	8.24E-03
Thyroid	7.5	mrem	4.03E-04	5.37E-03	6.18E-04	8.24E-03
Kidney	7.5	mrem	4.01E-04	5.34E-03	6.18E-04	8.24E-03
Lung	7.5	mrem	4.01E-04	5.34E-03	6.18E-04	8.24E-03
GILLI	7.5	mrem	4.01E-04	5.34E-03	6.18E-04	8.24E-03

Cumulative Doses per Year

Organ	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Bone	15.0	mrem	5.00E-07	3.33E-06
Liver	15.0	mrem	1.02E-03	6.79E-03
TBody	15.0	mrem	1.02E-03	6.79E-03
Thyroid	15.0	mrem	1.02E-03	6.81E-03
Kidney	15.0	mrem	1.02E-03	6.79E-03
Lung	15.0	mrem	1.02E-03	6.79E-03
GILLI	15.0	mrem	1.02E-03	6.79E-03

TABLE 2-5B
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSES TO A MEMBER OF THE PUBLIC DUE TO RADIOIODINES, TRITIUM, AND PARTICULATES IN GASEOUS RELEASES
Unit: 2
Starting: 01-Jul-1995 Ending: 31-Dec-1995

Cumulative Doses per Quarter

Organ	ODCM Limit	Unit	Quarter 3	% of ODCM Limit	Quarter 4	% of ODCM Limit
Bone	7.5	mrem	2.28E-08	3.04E-07	3.04E-08	4.05E-07
Liver	7.5	mrem	7.49E-04	9.98E-03	7.55E-04	1.01E-02
TBody	7.5	mrem	7.49E-04	9.98E-03	7.55E-04	1.01E-02
Thyroid	7.5	mrem	7.49E-04	9.98E-03	7.55E-04	1.01E-02
Kidney	7.5	mrem	7.49E-04	9.98E-03	7.55E-04	1.01E-02
Lung	7.5	mrem	7.49E-04	9.98E-03	7.55E-04	1.01E-02
GILLI	7.5	mrem	7.49E-04	9.98E-03	7.55E-04	1.01E-02

Cumulative Doses per Year

Organ	ODCM Limit	Units	Year to Ending Date	% of ODCM Limit
Bone	15.0	mrem	5.53E-07	3.69E-06
Liver	15.0	mrem	2.52E-03	1.68E-02
TBody	15.0	mrem	2.52E-03	1.68E-02
Thyroid	15.0	mrem	2.52E-03	1.68E-02
Kidney	15.0	mrem	2.52E-03	1.68E-02
Lung	15.0	mrem	2.52E-03	1.68E-02
GILLI	15.0	mrem	2.52E-03	1.68E-02

TABLE 2-7
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
TYPICAL GASEOUS MDC'S ACHIEVED ON COUNTING SYSTEM

Nuclide	MDC(uCi/ML)
MN-54	3.21E-15
CO-58	1.53E-14
FE-59	7.96E-15
CO-60	1.95E-14
ZN-65	2.34E-14
MO-99	1.81E-13
CS-134	1.41E-14
CS-137	7.83E-15
CE-141	6.96E-15
CE-144	3.47E-14
KR-87	8.18E-07
KR-88	3.94E-08
XE-133	4.30E-08
XE-133M	4.82E-08
XE-135	1.78E-08
XE-138	1.99E-07
I-131	9.67E-15
I-133	1.80E-13

4.0 SOLID WASTE

This section contains information regarding the types and quantities of solid radioactive waste shipped offsite during 1995 as required in ODCM 7.2.2.4. This information is presented in Table 3.

The error involved in determining the contents of solid radwaste shipments is estimated to be less than + or - 15%.

TABLE 3
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
Starting: 01-Jan-1995 Ending: 30-Jun-1995

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL
(not irradiated fuel)

1. Type of Waste.	UNITS	6-Months
a. Spent resins, Filter sludges, evaporator bottoms, etc.	m^3	7.230E+00
	Ci*	1.960E-01
b. Dry compressible waste, contaminated equipment, etc.	m^3	1.33E+01
	Ci*	8.40E+00
c. Irradiated components, control rods, etc.	m^3	None
	Ci*	None
d. Other (describe)	m^3	None
	Ci*	None

* Measured and/or estimated by correlations in accordance with 10CFR61.55.

TABLE 3
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
Starting: 01-Jan-1995 Ending: 30-Jun-1995

(continued)

2. Estimate of major nuclide composition.

a.

H-3	39.1%
FE-55	28.7%
CO-60	10.6%
NI-63	7.4%
CO-58	4.4%
CS-137	2.2%
PU-241	1.5%
MN-54	1.5%
C-14	1.2%

b.

FE-55	45.2%
CO-58	18.1%
CO-60	9.1%
NI-63	6.9%
CR-51	5.3%
NB-95	4.2%
ZR-95	2.7%
ZN-65	2.3%
MN-54	1.5%

3. Solid Waste Disposition

Number of Shipments	Mode of Transportation	Destination
37	Highway	Chem-Nuclear Systems, Inc. Barnwell, South Carolina.

TABLE 3
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
Starting: 01-Jan-1995 Ending: 30-Jun-1995

(continued)

4. Type of Container(1a)	Type of Container(1b)
Strong Tight Containers.	Strong Tight Containers.
5. Solidification Agent(1a)	Solidification Agent(1b)
All items shipped dewatered.	None

B. IRRADIATED FUEL SHIPMENTS (Disposition)

Number of Shipments	Mode of Transportation	Destination
None	N/A	N/A

TABLE 3
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
Starting: 01-Jul-1995 Ending: 31-Dec-1995

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL
(not irradiated fuel)

1. Type of Waste.	UNITS	6-Months
a. Spent resins,Filter sludges, evaporator bottoms, etc.	m^3	7.900E-01
	Ci*	5.000E-02
b. Dry compressible waste, contaminated equipment, etc.	m^3	8.120E+00
	Ci*	1.530E+00
c. Irradiated components, control rods, etc.	m^3	None
	Ci*	None
d. Other (describe)	m^3	None
	Ci*	None

* Measured and/or estimated by correlations in accordance with 10CFR61.55.

TABLE 3
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
Starting: 01-Jul-1995 Ending: 31-Dec-1995

(continued)

2. Estimate of major nuclide composition.

a.

H-3	39.6%
FE-55	29.0%
CO-60	10.7%
NI-63	7.4%
CO-58	4.5%
CS-137	2.2%
PU-241	1.5%
MN-54	1.5%
C-14	1.2%

b.

FE-55	34.5%
CO-58	30.8%
CR-51	10.6%
CO-60	7.0%
NI-63	5.4%
MN-54	3.1%
CS-137	2.6%
ZN-65	2.4%
NB-95	1.3%
ZR-95	1.0%

3. Solid Waste Disposition

Number of Shipments	Mode of Transportation	Destination
24	Highway	Chem-Nuclear Systems, Inc. Barnwell, South Carolina.

TABLE 3
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
Starting: 01-Jul-1995 Ending: 31-Dec-1995

(continued)

4. Type of Container(1a)	Type of Container(1b)
Strong Tight Containers.	Strong Tight Containers.

5. Solidification Agent(1a)	Solidification Agent(1b)
All items shipped dewatered.	None

B. IRRADIATED FUEL SHIPMENTS (Disposition)

Number of Shipments	Mode of Transportation	Destination
None	N/A	N/A

5.0 ONSITE DOSES TO MEMBERS OF THE PUBLIC

Current FNP effluent controls as established by ODCM 6.1 do not require assessment of the radiation doses from radioactive liquid and gaseous effluents to MEMBERS OF THE PUBLIC due to their activities inside the SITE BOUNDARY (ODCM Figure 10-1). However, this assessment has been performed for 1995 using the methods described in ODCM 6.2 and is included in this section as Table 4-1.

TABLE 4-1
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSE TO A MEMBER OF THE PUBLIC
DUE TO ACTIVITIES INSIDE THE SITE BOUNDARY
Unit: Site

Starting: 01-Jan-1995 Ending: 30-Jun-1995

Location Name	VISITOR LOCATION 1 (VIS.CENTER)
Distance (kilometers)	3.06E-01
Sector	WSW
Occupancy Factor	1.37E-03 (1.20E+01 hr/yr)
Age Group	CHILD

Ground Level Releases:	
Noble Gas X/Q (sec/m3)	1.04E-04
Particulate X/Q (sec/m3)	1.04E-04
Particulate D/Q (m-2)	4.80E-07
Mixed Mode Releases:	
Noble Gas X/Q (sec/m3)	8.80E-06
Particulate X/Q (sec/m3)	8.80E-06
Particulate D/Q (m-2)	6.20E-08
Elevated Releases:	
Noble Gas X/Q (sec/m3)	N/A
Particulate X/Q (sec/m3)	N/A
Particulate D/Q (m-2)	N/A

	Units	Quarter 1	Quarter 2	Quarters 1 and 2	Year to Ending Date
Bone	mrem	3.26E-05	3.15E-05	6.41E-05	6.41E-05
Liver	mrem	3.54E-05	3.45E-05	6.99E-05	6.99E-05
TBody	mrem	3.54E-05	3.45E-05	6.99E-05	6.99E-05
Thyroid	mrem	3.56E-05	3.83E-05	7.39E-05	7.39E-05
Kidney	mrem	3.54E-05	3.45E-05	6.99E-05	6.99E-05
Lung	mrem	3.54E-05	3.45E-05	6.99E-05	6.99E-05
GI-LLI	mrem	3.54E-05	3.45E-05	6.99E-05	6.99E-05

TABLE 4-1
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSE TO A MEMBER OF THE PUBLIC
DUE TO ACTIVITIES INSIDE THE SITE BOUNDARY
Unit: Site

Starting: 01-Jan-1995 Ending: 30-Jun-1995

Location Name	VISITOR LOCATION 2 (SW POND)
Distance (kilometers)	9.66E-01
Sector	SSW
Occupancy Factor	7.53E-03 (6.60E+01 hr/yr)
Age Group	CHILD

Ground Level Releases:

Noble Gas X/Q (sec/m3)	4.74E-05
Particulate X/Q (sec/m3)	4.74E-05
Particulate D/Q (m-2)	1.31E-07

Mixed Mode Releases:

Noble Gas X/Q (sec/m3)	9.75E-07
Particulate X/Q (sec/m3)	9.75E-07
Particulate D/Q (m-2)	2.78E-08

Elevated Releases:

Noble Gas X/Q (sec/m3)	N/A
Particulate X/Q (sec/m3)	N/A
Particulate D/Q (m-2)	N/A

	Units	Quarter 1	Quarter 2	Quarters 1 and 2	Year to Ending Date
Bone	mrem	1.99E-05	1.92E-05	3.91E-05	3.91E-05
Liver	mrem	2.16E-05	2.12E-05	4.28E-05	4.28E-05
TBody	mrem	2.16E-05	2.12E-05	4.28E-05	4.28E-05
Thyroid	mrem	2.17E-05	3.06E-05	5.23E-05	5.23E-05
Kidney	mrem	2.16E-05	2.12E-05	4.28E-05	4.28E-05
Lung	mrem	2.16E-05	2.12E-05	4.27E-05	4.27E-05
GI-LLI	mrem	2.16E-05	2.12E-05	4.28E-05	4.28E-05

TABLE 4-1
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSE TO A MEMBER OF THE PUBLIC
DUE TO ACTIVITIES INSIDE THE SITE BOUNDARY
Unit: Site

Starting: 01-Jan-1995 Ending: 30-Jun-1995

Location Name	VISITOR LOCATION 3 (RW DISCH.)
Distance (kilometers)	1.64E+00
Sector	SE
Occupancy Factor	1.14E-02 (9.99E+01 hr/yr)
Age Group	CHILD

Ground Level Releases:

Noble Gas X/Q (sec/m3)	1.63E-05
Particulate X/Q (sec/m3)	1.63E-05
Particulate D/Q (m-2)	4.55E-08

Mixed Mode Releases:

Noble Gas X/Q (sec/m3)	7.05E-07
Particulate X/Q (sec/m3)	7.05E-07
Particulate D/Q (m-2)	1.39E-08

Elevated Releases:

Noble Gas X/Q (sec/m3)	N/A
Particulate X/Q (sec/m3)	N/A
Particulate D/Q (m-2)	N/A

	Units	Quarter 1	Quarter 2	Quarters 1 and 2	Year to Ending Date
Bone	mrem	2.17E-05	2.10E-05	4.27E-05	4.27E-05
Liver	mrem	2.36E-05	2.31E-05	4.67E-05	4.67E-05
TBody	mrem	2.36E-05	2.31E-05	4.67E-05	4.67E-05
Thyroid	mrem	2.37E-05	2.80E-05	5.17E-05	5.17E-05
Kidney	mrem	2.36E-05	2.31E-05	4.67E-05	4.67E-05
Lung	mrem	2.36E-05	2.31E-05	4.67E-05	4.67E-05
GI-LLI	mrem	2.36E-05	2.31E-05	4.67E-05	4.67E-05

TABLE 4-1
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSE TO A MEMBER OF THE PUBLIC
DUE TO ACTIVITIES INSIDE THE SITE BOUNDARY
Unit: Site

Starting: 01-Jul-1995 Ending: 31-Dec-1995

Location Name	VISITOR LOCATION 1 (VIS.CENTER)
Distance (kilometers)	3.06E-01
Sector	WSW
Occupancy Factor	1.37E-03 (1.20E+01 hr/yr)
Age Group	CHILD

Ground Level Releases:

Noble Gas X/Q (sec/m3)	1.04E-04
Particulate X/Q (sec/m3)	1.04E-04
Particulate D/Q (m-2)	4.80E-07

Mixed Mode Releases:

Noble Gas X/Q (sec/m3)	8.80E-06
Particulate X/Q (sec/m3)	8.80E-06
Particulate D/Q (m-2)	6.20E-08

Elevated Releases:

Noble Gas X/Q (sec/m3)	N/A
Particulate X/Q (sec/m3)	N/A
Particulate D/Q (m-2)	N/A

	Units	Quarter 3	Quarter 4	Quarters 3 and 4	Year to Ending Date
Bone	mrem	4.86E-05	3.75E-05	8.61E-05	1.50E-04
Liver	mrem	5.34E-05	4.34E-05	9.67E-05	1.67E-04
TBody	mrem	5.34E-05	4.34E-05	9.67E-05	1.67E-04
Thyroid	mrem	5.36E-05	4.38E-05	9.74E-05	1.71E-04
Kidney	mrem	5.34E-05	4.34E-05	9.67E-05	1.67E-04
Lung	mrem	5.34E-05	4.34E-05	9.67E-05	1.67E-04
GI-LLI	mrem	5.34E-05	4.34E-05	9.67E-05	1.67E-04

TABLE 4-1
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSE TO A MEMBER OF THE PUBLIC
DUE TO ACTIVITIES INSIDE THE SITE BOUNDARY
Unit: Site

Starting: 01-Jul-1995 Ending: 31-Dec-1995

Location Name	VISITOR LOCATION 2 (SW POND)
Distance (kilometers)	9.66E-01
Sector	SSW
Occupancy Factor	7.53E-03 (6.60E+01 hr/yr)
Age Group	CHILD

Ground Level Releases:

Noble Gas X/Q (sec/m3)	4.74E-05
Particulate X/Q (sec/m3)	4.74E-05
Particulate D/Q (m-2)	1.31E-07

Mixed Mode Releases:

Noble Gas X/Q (sec/m3)	9.75E-07
Particulate X/Q (sec/m3)	9.75E-07
Particulate D/Q (m-2)	2.78E-08

Elevated Releases:

Noble Gas X/Q (sec/m3)	N/A
Particulate X/Q (sec/m3)	N/A
Particulate D/Q (m-2)	N/A

	Units	Quarter 3	Quarter 4	Quarters 3 and 4	Year to Ending Date
Bone	mrem	3.00E-05	2.31E-05	5.31E-05	9.22E-05
Liver	mrem	3.29E-05	2.67E-05	5.96E-05	1.02E-04
TBody	mrem	3.29E-05	2.67E-05	5.96E-05	1.02E-04
Thyroid	mrem	3.31E-05	2.69E-05	6.00E-05	1.12E-04
Kidney	mrem	3.29E-05	2.67E-05	5.96E-05	1.02E-04
Lung	mrem	3.29E-05	2.67E-05	5.96E-05	1.02E-04
GI-LLI	mrem	3.29E-05	2.67E-05	5.96E-05	1.02E-04

TABLE 4-1
Joseph M. Farley Nuclear Plant
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 1995
DOSE TO A MEMBER OF THE PUBLIC
DUE TO ACTIVITIES INSIDE THE SITE BOUNDARY
Unit: Site

Starting: 01-Jul-1995 Ending: 31-Dec-1995

Location Name	VISITOR LOCATION 3 (RW DISCH.)
Distance (kilometers)	1.64E+00
Sector	SE
Occupancy Factor	1.14E-02 (9.99E+01 hr/yr)
Age Group	CHILD

Ground Level Releases:

Noble Gas X/Q (sec/m3)	1.63E-05
Particulate X/Q (sec/m3)	1.63E-05
Particulate D/Q (m-2)	4.55E-08

Mixed Mode Releases:

Noble Gas X/Q (sec/m3)	7.05E-07
Particulate X/Q (sec/m3)	7.05E-07
Particulate D/Q (m-2)	1.39E-08

Elevated Releases:

Noble Gas X/Q (sec/m3)	N/A
Particulate X/Q (sec/m3)	N/A
Particulate D/Q (m-2)	N/A

	Units	Quarter 3	Quarter 4	Quarters 3 and 4	Year to Ending Date
Bone	mrem	3.25E-05	2.52E-05	5.77E-05	1.00E-04
Liver	mrem	3.57E-05	2.91E-05	6.48E-05	1.11E-04
TBody	mrem	3.57E-05	2.91E-05	6.48E-05	1.11E-04
Thyroid	mrem	3.59E-05	2.93E-05	6.52E-05	1.17E-04
Kidney	mrem	3.57E-05	2.91E-05	6.48E-05	1.11E-04
Lung	mrem	3.57E-05	2.91E-05	6.48E-05	1.11E-04
GI-LLI	mrem	3.57E-05	2.91E-05	6.48E-05	1.11E-04

6.0 MISCELLANEOUS

This section contains several items which are only required to be reported under certain conditions. These include radiation dose assessments to show conformance with 40CFR190 (if required by ODCM 5.1.2), licensee initiated changes to the ODCM within the last year, deviations in the Radioactive Effluent Control Program within the last year pursuant to ODCM 7.2.2.6, major changes to the liquid or gaseous radwaste treatment systems as required by ODCM 2.1.5 and 3.1.6, and any changes to the solid radwaste treatment system pursuant to the Process Control Program (PCP).

6.1 Total Dose From Uranium Fuel Cycle

In accordance with Technical Specification 6.8.3.e(x), the dose or dose commitment to any MEMBER OF THE PUBLIC over a calendar year, due to releases of radioactivity and to radiation from uranium fuel cycle sources, shall be limited to less than or equal to 25 mrem to the total body or to any organ, except the thyroid, which shall be limited to less than or equal to 75 mrem (as stated in ODCM 5.1).

With the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding twice the limits of ODCM 2.1.3, 3.1.3, or 3.1.4, calculations shall be made according to ODCM 5.2 methods to determine whether the above (ODCM 5.1) limits have been exceeded (as stated in ODCM 5.1.2).

Since none of the ODCM 2.1.3, 3.1.3, or 3.1.4 limits were exceeded during 1995, no calculations were required.

6.2 Licensee Initiated Changes to the ODCM

There were no changes to the ODCM during 1995.

6.3 Program Deviations

This section contains any deviations from the composite sampling or MDC requirements included in ODCM Tables 2-3 and 3-3.

There were no deviations from composite sampling or MDC requirements on Unit 1 or Unit 2 during 1995.

6.4 Major Changes to the Radwaste Treatment Systems

There were no major changes to the Radwaste Treatment Systems during 1995.