ST. LUCIE PLANT UNITS NO. 1 & 2 LICENSE NUMBERS DPR-67 & NPF-16

COMBINED ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT FOR THE PERIOD

JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE OF CONTENTS

DESC	RIPTION	PAGE
EFFLUENT AND WASTE DISPOSAL SU	1	
VISITOR DOSE RESULTS FOR CALEND	6	
OFFSITE DOSE CALCULATION MANUA	L REVISIONS	6
SOLID WASTE AND IRRADIATED FUEL	SHIPMENTS	6
PROCESS CONTROL PROGRAM REVIS	SIONS	6
LIQUID EFFLUENTS:		
Summation of all Releases Summation of all Releases Nuclide Summation by Quarter Nuclide Summation by Quarter Liquid Effluent Dose Liquid Effluent Dose	Unit # 1 Unit # 2 Unit # 1 Unit # 2 Unit # 1 Unit # 2	7 9 11 15 19 20
GASEOUS EFFLUENT:		
Summation of all Releases Summation of all Releases Nuclide Summation by Quarter Nuclide Summation by Quarter Gas Effluent Dose Gas Effluent Dose	Unit # 1 Unit # 2 Unit # 1 Unit # 2 Unit # 1 Unit # 2	21 23 25 29 33 34
SOLID WASTE DISPOSAL - TABLE 3.9	Shipment Summations	35
Attachment - A Unplanned Releases		
Attachment - B Radiation Monitors Out of	of Service for >30 Days	
Attachment - C Information for Industry		
Attachment - D C-200, ODCM Revision 2	28	
Attachment - E C-200, ODCM Marked Up	p Pages From Revisions 26 & 27	

EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION

1. Regulatory Limits

- 1.1 For Liquid Waste Effluents
 - A. The concentration of radioactive material released from the site shall be limited to ten times the concentrations specified in 10 CFR Part 20 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 2E-4 micro-Curies/ml total activity.
 - B. The dose or dose commitment to a MEMBER OF THE PUBLIC from radioactive material in liquid effluents released, from each reactor unit, to UNRESTRICTED AREAS shall be limited to:

 During any calendar quarter to <= 1.5 mrems to the Total Body and to <= 5 mrems to any organ, and During any calendar year to <= 3 mrems to the Total Body and to <= 10 mrems to any organ.

1.2 For Gaseous Waste Effluents:

- A. The dose rate in UNRESTRICTED AREAS due to radioactive materials released in gaseous effluents from the site shall be limited to:

 For Noble Gases: <= 500 mrems/yr to the total body and

 <= 3000 mrems/yr to the skin, and

 For lodine-131, lodine-133, Tritium, and all radionuclides in particulate form with half-lives greater than 8 days:

 <= 1500 mrems/yr to any organ.
- *B. The air dose due to noble gases released in gaseous effluents from each unit, to areas at and beyond the SITE BOUNDARY shall be limited to the following:

 During any calendar quarter, to <= 5 mrads for gamma radiation, and <= 10 mrads for beta radiation and, during any calendar year, to <= 10 mrads for gamma radiation and <= 20 mrads for beta radiation.
- *C. The dose to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, Tritium, and all radionuclides in particulate form, with half-lives > 8 Days in gaseous effluents released, from each unit to areas at and beyond the site boundary, shall be limited to the following:

 During any calendar quarter to <= 7.5 mrem to any organ, and During any calendar year to <= 15 mrem to any organ.
- * The calculated doses contained in an annual report shall not apply to any ODCM Control. The reported values are based on actual release conditions instead of historical conditions that the ODCM Control dose calculations are based on. The ODCM Control dose limits are therefore included in Item 1 of the report, for information only.

EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION (Continued)

2. Effluent Concentration Limits (ECL)

Water: Ten times the 10 CFR Part 20, Appendix B, Table 2, Column 2, except for entrained or dissolved noble gases as described in 1.1.A of this report.

Air: Release concentrations are limited to dose rate limits described in 1.2.A. of this report.

- 3. Average Energy of fission and activation gases in gaseous effluents is not applicable.
- 4. Measurements and approximations of total radioactivity

Where alpha, tritium, and listed nuclides are shown as zero Curies released, this should be interpreted as "no activity was detected on the samples using the ODCM Control analyses techniques to achieve required Lower Limit of Detection (LLD) sensitivity for radioactive effluents".

A summary of liquid effluent accounting methods is described in Table 3.1.

A summary of gaseous effluent accounting methods is described in Table 3.2.

4.1 Estimate of Errors

	L	IQUID	GASEC	US
Error Topic	Avg %	Max %	Avg %	Max %
Release Point Mixing	2	5	NA	NA
Sampling	1	5	2	5
Sample Preparation	1	5	1	5
Sample Analysis	3	10	3	10
Release Volume	2	5	4	15
Total Percent	9	30	10	35

The predictability of error for radioactive releases can only be applied to nuclides that are predominant in sample spectrums. Nuclides that are near background relative to the predominant nuclides in a given sample could easily have errors greater than the above listed maximums.

EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION (Continued)

- 4. Measurements and Approximations of Total Radioactivity (Continued)
 - 4.2 Methods of Analyses

<u>TABLE 3.1</u>

RADIOACTIVE LIQUID EFFLUENT SAMPLING AND ANALYSIS

Liquid	Sampling		Method o
Source	Frequency	Type of Analysis	Analysis
	Each Batch	Principal Gamma Emitters	p.h.a
Monitor	Monthly	Tritium	L.S.
Tank	Composi	Gross Alpha	AIC
Releases	Quarterly	Sr-89, Sr-90, Fe-55,	
	Composite	Ni-63 & C-14	C.S.
Continuous Daily Releases Grab Samples	Principal Gamma Emitters & I-131 for 4/M Composite Analysis	p.h.a.	
		Dissolved & Entrained Gases One Batch/ Month	p.h.a.
		Tritium Composite Monthly	L.S.
		Alpha Composite Monthly	AIC
		Sr-89, Sr-90, Fe-55, Ni-63 & C-14 Composite Quarterly	C.S.

p.h.a.- Gamma Spectrum Pulse Height Analysis using Germanium

Detectors. All peaks are identified and quantified.

L.S.- Liquid Scintillation Counting

C.S.- Chemical Separation

AIC - Air Ion Chamber

4/M - Four per Month

EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION (Continued)

- 4. Measurements and Approximations of Total Radioactivity (Continued)
 - 4.2 Methods of Analyses (Continued)

TABLE 3.2 RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS

Gaseous Source	Sampling Frequency	Type of Analysis	Method of Analysis
Oource	Trequency	Type of Analysis	Allalysis
Waste Gas Decay Tank Releases	Each Batch	Principal Gamma Emitters	p.h.a.
Containment Purge Releases	Each Purge	Principal Gamma Emitters Tritium	p.h.a L.S.
	4/M	Principal Gamma Emitters Tritium	p.h.a. L.S.
Plant	Monthly	 Particulate	
Vent	Composite	Gross Alpha	AIC
	· · · · · · · · · · · · · · · · · · ·	Particulate	
į	Quarterly	Sr-89 & Sr-90, Fe-55,	ļ
	Composite	Ni-63 & C-14	C.S.

- p.h.a.- Gamma Spectrum Pulse Height Analysis using Germanium Detectors. All peaks are identified and quantified.
- L.S.- Liquid Scintillation Counting
- C.S.- Chemical Separation
- AIC.- Air Ion Chamber
- 4/M Four per Month

EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION (Continued)

5. Batch Releases

A. Liquid	Unit 1	Unit 2	Eng. Unit
Number of batch releases	28	28	
Total time period for batch releases	51,773	51,773	minutes
Maximum time period for a batch release	33,754	33,753	minutes
4. Average time period for a batch release	1,849	1,849	minutes
5. Minimum time period for a batch release	245	245	minutes
6. Average dilution stream flow during the		:	
period	958,248	958,248	gpm

All liquid releases are summarized in Tables

B. Gaseous	Unit 1	Unit 2	Eng. Unit
Number of batch releases	5	111	<u> </u>
Total time period for batch releases	1,053	8,873	minutes
3. Maximum time period for a batch release	395	600	minutes
4. Average time period for a batch release	211	79	minutes
5. Minimum time period for a batch release	59	10	minutes

All gaseous waste releases are summarized in Tables

6. Unplanned Releases

A. Liquid	Unit 1	Unit 2	Eng. Unit
1. Number of releases	0	0	
Total activity of releases	0.00E+00	0.00E+00	Curies

B. Gaseous	Unit 1	Unit 2	Eng. Unit
1. Number of releases	1	1	
2. Total activity of releases	7.75E-05	6.19E-05	Curies

C. See Attachment - A for the Unit 1 and Unit 2 Unplanned Gas Releases

- 1. A description of the event and equipment involved.
- 2. Cause(s) for the unplanned release.
- 3. Actions taken to prevent a recurrence.
- 4. Consequences of the unplanned release.

EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION (Continued)

7. Assessment of radiation dose from radioactive effluents to MEMBERS OF THE PUBLIC due to their activities inside the SITE BOUNDARY assumes the VISITOR onsite for 6 hours per day for 312 days per year at a distance of 1.6 kilometers in the South East Sector. The VISITOR received exposure from each of the two reactors on the Site. Actual Met Data was used to calculate Visitor Dose for Calendar Year 2006.

VISITOR DOSE RESULTS FOR CALENDAR YEAR 2006 were:

	DOSE	Gas Particulate	Dose
NOBLE GAS	<u>mrad</u>	& lodine Dose	<u>mrem</u>
Gamma Air Dose	1.85E-03	Bone	1.76E-05
Beta Air Dose	8.71E-04	Liver	3.18E-04
		Thyroid	3.05E-04
		Kidney	3.03E-04
		Lung	3.03E-04
		GI-LLI	2.96E-04
		Total Body	5.68E-04

8. Offsite Dose Calculation Manual (ODCM) Revision(s): The ODCM was revised two times during 2006. The first revision was to clarify operational and calibration requirements for the vent flow rate monitors and make various administrative changes to tables, appendices and page number references. The second change was to create an additional liquid release flowpath to the intake canal from the construction dewatering that will be required for the Independent Spent Fuel Storage Installation project.

Solid Waste and Irradiated Fuel Shipments:
 No irradiated fuel shipments were made from the site.
 Common Solid waste from St. Lucie Units 1 and 2 were shipped jointly.
 A tabulated summation of these shipments is provided in this report as Table 3.9.

- 10. Process Control Program (PCP) Revisions:
 There were no changes during the reporting interval.
- 11. Major Changes to Radioactive Liquid, Gaseous and Solid Waste Treatment Systems: There were no changes during the reporting interval.

TABLE 3.3-1 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	UNIT	QTR#1	QTR#2
A. Fission and Activation Products			
 Total Release - (Not including Tritium, Gases, and Alpha) 	Ci	1.31E-02	1.88E-02
Average Diluted Concentration During Period	uCi/ml	5.20E-11	7.41E-11
B. Tritium			
1. Total Release	Ci	3.15E+01	4.08E+01
Average Diluted Concentration During Period	uCi/ml	1.25E-07	1.61E-07
C. Dissolved and Entrained Gases			
1. Total Release	Ci	3.29E-02	4.85E-02
Average Diluted Concentration During Period	uCi/ml	1.31E-10	1.92E-10
D. Gross Alpha Radioactivity			
1. Total Release	Ci	0.00E+00	0.00E+00
E. Volume of Waste Released (Prior to Dilution)	Liters	5.79E+05	(a) 3.20E+06
F. Volume of Dilution Water Used During Period	Liters	2.52E+11	2.53E+11

⁽a) Denotes this value includes 2.25e+06 Liters from a dewatering well release

TABLE 3.3-1 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES (Continued)

	UNIT	QTR#3	QTR#4
A. Fission and Activation Products			
 Total Release - (Not including Tritium, Gases, and Alpha) 	Ci	5.40E-03	8.48E-03
Average Diluted Concentration During Period	uCi/ml	2.10E-11	3.30E-11
B. Tritium			
1. Total Release	Ci	1.25E+01	1.45E+01
Average Diluted Concentration During Period	uCi/ml	4.84E-08	5.64E-08
C. Dissolved and Entrained Gases			
1. Total Release	Ci	1.19E-06	2.24E-06
Average Diluted Concentration During Period	uCi/ml	4.63E-15	8.72E-15
D. Gross Alpha Radioactivity			
1. Total Release	Ci	0.00E+00	0.00E+00
E. Volume of Waste Released (Prior to Dilution)	Liters	(b) 7.85E+07	4.31E+05
F. Volume of Dilution Water			
Used During Period	Liters	2.57E+11	2.57E+11

⁽b) - Denotes this value includes 7.80e+07 Liters from a dewatering well release

TABLE 3.3-2 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

A. Fission and Activation Products	UNIT	QTR#1	QTR#2
A. Fission and Activation Floducts			
 Total Release - (Not including Tritium, Gases, and Alpha) 	Ci	1.31E-02	1.88E-02
Average Diluted Concentration During Period	uCi/ml	5.20E-11	7.41E-11
B. Tritium			
1. Total Release	Ci	3.15E+01	4.08E+01
Average Diluted Concentration During Period	uCi/ml	1.25E-07	1.61E-07
C. Dissolved and Entrained Gases			
1. Total Release	Ci	3.29E-02	4.85E-02
Average Diluted Concentration During Period	uCi/ml	1.31E-10	1.92E-10
D. Gross Alpha Radioactivity			
1. Total Release	Ci	0.00E+00	0.00E+00
E. Volume of Waste Released			(a)
(Prior to Dilution)	Liters	5.79E+05	3.20E+06
F. Volume of Dilution Water			
Used During Period	Liters	2.52E+11	2.53E+11

⁽a) Denotes this value includes 2.25e+06 Liters from a dewatering well release

TABLE 3.3-2 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES (Continued)

A. Fining and Assignsting Durch as	UNIT	QTR#3	QTR#4
A. Fission and Activation Products			
 Total Release - (Not including Tritium, Gases, and Alpha) 	Ci	5.40E-03	7.16E-04
Average Diluted Concentration During Period	uCi/ml	2.10E-11	2.78E-12
B. Tritium			
1. Total Release	Ci	1.25E+01	1.45E+01
Average Diluted Concentration During Period	uCi/ml	4.84E-08	5.64E-08
C. Dissolved and Entrained Gases			
1. Total Release	Ci	1.19E-06	2.24E-06
Average Diluted Concentration During Period	uCi/ml	4.63E-15	8.72E-15
D. Gross Alpha Radioactivity			
1. Total Release	Ci	0.00E+00	0.00E+00
E. Volume of Waste Released (Prior to Dilution)	Liters	(b) 7.85E+07	4.31E+05
F. Volume of Dilution Water Used During Period	Liters	2.57E+11	2.57E+11

⁽b) - Denotes this value includes 7.80e+07 Liters from a dewatering well release

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.4-1 LIQUID EFFLUENTS

NUCLIDES	Continuous Mode		Mode	Batch Mode	
RELEASED	UNIT	QTR#1	QTR#2	QTR#1	QTR#2
C-14	Ci	0.00E+00	0.00E+00	5.65E-03	3.97E-03
Na-24	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr-51	Ci	0.00E+00	0.00E+00	7.55E-05	9.50E-04
Mn-54	Ci	0.00E+00	0.00E+00	2.07E-05	2.09E-04
Fe-55	Ci	0.00E+00	0.00E+00	2.24E-03	5.34E-03
Mn-56	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-57	Ci	0.00E+00	0.00E+00	3.27E-05	1.22E-05
Co-58	Ci	0.00E+00	0.00E+00	1.84E-03	3.51E-03
Fe-59	Ci	0.00E+00	0.00E+00	0.00E+00	2.75E-04
Co-60	Ci	0.00E+00	0.00E+00	7.55E-04	1.88E-03
Ni-63	Ci	0.00E+00	0.00E+00	1.73E-03	1.84E-03
Zn-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ni-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Br-82	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rb-88	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-91	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-92	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y-92	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	Ci	0.00E+00	0.00E+00	3.05E-04	1.26E-04
Nb-95	Ci	0.00E+00	0.00E+00	2.50E-04	2.09E-04
Zr-97	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-97	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tc-99m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mo-99	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ru-103	Ci	0.00E+00	0.00E+00	1.28E-06	1.47E-06
Ag-110m	Ci	0.00E+00	0.00E+00	0.00E+00	4.64E-05
Sn-113	Ci	0.00E+00	0.00E+00	1.05E-05	2.77E-05
Sb-122	Ci	0.00E+00	0.00E+00	0.00E+00	1.03E-05
Sb-124	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sb-125	Ci	0.00E+00	0.00E+00	1.74E-04	1.92E-04

TABLE 3.4-1 LIQUID EFFLUENTS (Continued)

NUCLIDES	Continuous M		s Mode	Mode Batch Mode	
RELEASED	UNIT	QTR#1	QTR#2	QTR#1	QTR#2
T 100	C.	0.005+00	0.005+00	0.005.100	0.0015 1.00
Te-129	Ci C:	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Te-129m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-130	Ci C:	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Te-132	Ci	0.00E+00	0.00E+00	0.00E+00	2.68E-05
I-132	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-133	Ci	0.00E+00	0.00E+00	0.00E+00	2.75E-06
I-134	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	Ci	0.00E+00	0.00E+00	0.00E+00	7.55E - 06
I-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-136	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	Ci	0.00E+00	0.00E+00	1.69E - 05	8.54E-05
Cs-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
La-140	Ci	0.00E+00	0.00E+00	0.00E+00	2.46E-05
Ce-141	Ci	0.00E+00	0.00E+00	0.00E+00	3.98E-06
Ce-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pr-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
W-187	Ci	0.00E+00	0.00E+00	0.00E+00	1.18E-05
Np-239	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL FOR					
PERIOD	Ci	0.00E+00	0.00E+00	1.31E-02	1.88E-02
Ar-41	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-85m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-85	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-87	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-88	Ci	0.00E+00	0.00E+00	4.44E-06	0.00E+00
Xe-131m	Ci	0.00E+00	0.00E+00	8.32E-04	1.25E-03
Xe-131m Xe-133m	Ci	0.00E+00	0.00E+00	1.22E-04	3.23E-04
Xe-133111 Xe-133	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	3.20E-02	4.69E-02
Xe-135m	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	9.40E-06
	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00		9.40E-06 9.95E-06
Xe-135	Ci	0.00E±00	U.UUETUU	0.00E+00	9.93 C- 00

FLORIDA POWER AND LIGHT COMPANY ST. LUCIE UNIT # 1 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.4-1 LIQUID EFFLUENTS (Continued)

NUCLIDES	Continuous		s Mode Batch		Mode	
RELEASED	UNIT	QTR#3	QTR#4	QTR#3	QTR#4	
C-14	Ci	0.00E+00	0.00E+00	5.30E-04	2.34E-04	
Na-24	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Cr-51	Ci	0.00E+00	0.00E+00	2.69E-04	0.00E 00	
Mn-54	Ci	0.00E+00	0.00E+00	1.42E-04	3.47E-05	
Fe-55	Ci	0.00E+00	0.00E+00	9.39E-04	4.26E-03	
Mn-56	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Co-57	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Co-58	Ci	0.00E+00	0.00E+00	1.46E-03	1.89E-04	
Fe-59	Ci	0.00E+00	0.00E+00	6.35E-06	2.80E-06	
Ni-63	Ci	0.00E+00	0.00E+00	7.04E-04	3.27E-03	
Co-60	Ci	0.00E+00	0.00E+00	5.31E-04	3.58E-04	
Zn-65	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Ni-65	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Br-82	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Rb-88	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Sr-89	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Sr-90	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Y-90	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Sr-91	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Sr-92	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Y-92	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Zr- 95	Ci	0.00E+00	0.00E+00	1.42E-04	0.00E 00	
Nb-95	Ci	0.00E+00	0.00E+00	2.30E-04	1.87E-05	
Zr-97	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Nb-97	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Tc-99m	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Mo-99	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Ru-103	Ci	0.00E+00	0.00E+00	0.00E 00	0.00E 00	
Ag-110m	Ci	0.00E+00	0.00E+00	0.00E 00	2.29E-05	
Sn-113	Ci	0.00E+00	0.00E+00	1.03E-05	0.00E 00	
Sb-122	Ci	0.00E+00	0.00E+00	0.00E 00	1.81E-06	
Sb-124	Ci	0.00E+00	0.00E+00	5.50E-06	0.00E 00	
Sb-125	Ci	0.00E+00	0.00E+00	2.33E-04	7.10E-05	

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.4-1 LIQUID EFFLUENTS (Continued)

NUCLIDES	Continuous Mode		Mode	Batch Mode		
RELEASED	UNIT	QTR#3	QTR#4	QTR#3	QTR#4	
Te-129	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Te-129m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
I-130	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
I-131	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Te-132	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
I-132	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
I-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
I-134	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Cs-134	Ci	0.00E+00	0.00E+00	9.30E-06	0.00E 00	
I-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Cs-136	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Cs-137	Ci	0.00E+00	0.00E+00	1.96E-04	1.75E-05	
Cs-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ba-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
La-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ce-141	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ce-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Pr-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
W-187	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Np-239	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
TOTAL FOR						
PERIOD	Ci	0.00E+00	0.00E+00	5.40E-03	8.48E-03	
Ar-41	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Kr-85m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Kr-85	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Kr-87	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Kr-88	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Xe-131m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Xe-133m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Xe-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Xe-135m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Xe-135	Ci	0.00E+00	0.00E+00	1.19E-06	2.24E-06	
Xe-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.4-2 LIQUID EFFLUENTS

NUCLIDES	Continuous		s Mode Batch M		lode	
RELEASED	UNIT	QTR#1	QTR#2	QTR#1	QTR#2	
C-14	Ci	0.00E+00	0.00E+00	5.65E-03	3.97E-03	
Na-24	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Cr-51	Ci	0.00E+00	0.00E+00	7.55E-05	9.50E-04	
Mn-54	Ci	0.00E+00	0.00E+00	2.07E-05	2.09E-04	
Fe-55	Ci	0.00E+00	0.00E+00	2.24E-03	5.34E-03	
Mn-56	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Co-57	Ci	0.00E+00	0.00E+00	3.27E-05	1.22E-05	
Co-58	Ci	0.00E+00	0.00E+00	1.84E-03	3.51E-03	
Fe-59	Ci	0.00E+00	0.00E+00	0.00E+00	2.75E-04	
Co-60	Ci	0.00E+00	0.00E+00	7.55E-04	1.88E-03	
Ni-63	Ci	0.00E+00	0.00E+00	1.73E-03	1.84E-03	
Zn-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ni-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Br-82	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Rb-88	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Sr-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Sr-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Y-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Sr-91	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Sr-92	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Y-92	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Zr-95	Ci	0.00E+00	0.00E+00	3.05E-04	1.26E-04	
Nb-95	Ci	0.00E+00	0.00E+00	2.50E-04	2.09E-04	
Zr-97	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Nb-97	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Tc-99m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Mo-99	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Ru-103	Ci	0.00E+00	0.00E+00	1.28E-06	1.47E-06	
Ag-110m	Ci	0.00E+00	0.00E+00	0.00E+00	4.64E-05	
Sn-113	Ci	0.00E+00	0.00E+00	1.05E-05	2.77E-05	
Sb-122	Ci	0.00E+00	0.00E+00	0.00E+00	1.03E-05	
Sb-124	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Sb-125	Ci	0.00E+00	0.00E+00	1.74E-04	1.92E-04	

TABLE 3.4-2 LIQUID EFFLUENTS (Continued)

NUCLIDES		Continuous	s Mode	Batch Mo	de
RELEASED	UNIT	QTR#1	QTR#2	QTR#1	QTR#2
					
Te-129	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Te-129m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-130	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Te-132	Ci	0.00E+00	0.00E+00	0.00E+00	2.68E-05
I-132	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-133	Ci	0.00E+00	0.00E+00	0.00E+00	2.75E-06
I-134	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	Ci	0.00E+00	0.00E+00	0.00E+00	7.55E-06
I-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-136	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	Ci	0.00E+00	0.00E+00	1.69E-05	8.54E-05
Cs-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
La-140	Ci	0.00E+00	0.00E+00	0.00E+00	2.46E-05
Ce-141	Ci	0.00E+00	0.00E+00	0.00E+00	3.98E-06
Ce-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pr-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
W-187	Ci	0.00E+00	0.00E+00	0.00E+00	1.18E-05
Np-239	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL FOR					
PERIOD	Ci	0.00E+00	0.00E+00	1.31E-02	1.88E-02
Ar-41	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-85m	Ci	0.00E+00 0.00E+00			
Kr-85	Ci Ci		0.00E+00	0.00E+00	0.00E+00
Kr-87		0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-88	Ci	0.00E+00	0.00E+00	4.44E-06	0.00E+00
Xe-131m	Ci	0.00E+00	0.00E+00	8.32E-04	1.25E-03
Xe-133m	Ci	0.00E+00	0.00E+00	1.22E-04	3.23E-04
Xe-133	Ci	0.00E+00	0.00E+00	3.20E-02	4.69E-02
Xe-135m	Ci	0.00E+00	0.00E+00	0.00E+00	9.40E-06
Xe-135	Ci	0.00E+00	0.00E+00	0.00E+00	9.95E-06

TABLE 3.4-2 LIQUID EFFLUENTS (Continued)

NUCLIDES		Continuous	Mode	Batch Mo	de
RELEASED	UNIT	QTR#3	QTR#4	QTR#3	QTR#4
C-14		0.00E+00	0.00E+00	5.30E-04	2.34E-04
Na-24	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cr-51	Ci	0.00E+00	0.00E+00	2.69E-04	0.00E+00
Mn-54	Ci	0.00E+00	0.00E+00	1.42E-04	3.47E-05
Fe-55	Ci	0.00E+00	0.00E+00	9.39E-04	4.26E-03
Mn-56	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-57	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-58	Ci	0.00E+00	0.00E+00	1.46E-03	1.89E-04
Fe-59	Ci	0.00E+00	0.00E+00	6.35E-06	2.80E-06
Co-60	Ci	0.00E+00	0.00E+00	7.04E-04	0.00E+00
Ni-63	Ci	0.00E+00	0.00E+00	5.31E-04	3.27E-03
Zn-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ni-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Br-82	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rb-88	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-91	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Sr-92	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y-92	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Zr-95	Ci	0.00E+00	0.00E+00	1.42E-04	0.00E+00
Nb-95	Ci	0.00E+00	0.00E+00	2.30E-04	1.87E-05
Zr-97	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Nb-97	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Tc-99m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Mo-99	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ru-103	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ag-110m	Ci	0.00E+00	0.00E+00	0.00E+00	2.29E-05
Sn-113	Ci	0.00E+00	0.00E+00	1.03E-05	0.00E+00
Sb-122	Ci	0.00E+00	0.00E+00	0.00E+00	1.81E-06
Sb-124	Ci	0.00E+00	0.00E+00	5.50E-06	0.00E+00
Sb-125	Ci	0.00E+00	0.00E+00	2.33E-04	7.10E-05

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.4-2 LIQUID EFFLUENTS (Continued)

NUCLIDES	Continuous M		s Mode Batch Mode		de
RELEASED	UNIT	QTR#3	QTR#4	QTR#3	QTR#4
Te-129	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Te-129m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-130	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-131	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Te-132	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-132	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-134	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-134	Ci	0.00E+00	0.00E+00	9.30E-06	0.00E+00
I-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-136	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cs-137	Ci	0.00E+00	0.00E+00	1.96E-04	1.75E-05
Cs-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
La-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce-141	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pr-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
W-187	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Np-239	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TOTAL FOR					
PERIOD	Ci	0.00E+00	0.00E+00	5.40E-03	8.12E-03
Ar-41	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-85m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-85	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-87	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-88	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xe-131m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xe-133m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xe-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xe-135m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xe-135	Ci	0.00E+00	0.00E+00	1.19E-06	2.24E-06
Xe-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00

TABLE 3.5-1 LIQUID EFFLUENTS - DOSE SUMMATION

AGE GROUP: ADULT LOCATION: ANY ADULT

FISH AND SHELLFISH

ORGAN	DOSE mrem
Bone	7.62E-03
Liver	3.10E-02
Thyroid	1.86E-04
Kidney	1.98E-04
Lung	3.56E-02
GI-LLI	1.90E-02
Total Body	8.40E-03

TABLE 3.5-2 LIQUID EFFLUENTS - DOSE SUMMATION

AGE GROUP: ADULT LOCATION: ANY ADULT

FISH AND SHELLFISH

ORGAN	DOSE mrem
Bone	7.62E-03
Liver	3.10E-02
Thyroid	1.86E-04
Kidney	1.98E-04
Lung	3.56E-02
GI-LLI	1.90E-02
Total Body	8.40E-03

ST. LUCIE UNIT #1

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.6-1 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

A .	Fission and Activation Gases	UNIT	QTR#1	QTR#2
	1. Total Release	Ci	2.76E+01	0.00E+00
	Average Release Rate For Period	uCi/sec	3.51E+00	0.00E+00
В.	Iodines			
	1. Total Iodine-131	Ci	0.00E+00	0.00E+00
	2. Average Release Rate For Period	uCi/sec	0.00E+00	0.00E+00
C.	Particulates			
	 Particulates (Half Life > 8 days) 	Ci	2.76E-06	4.00E-06
	2. Average Release Rate For Period	uCi/sec	3.52E-07	5.09E-07
	3. Gross Alpha Radioactivity	Ci	6.83E-08	4.37E-08
D.	Tritium			
	1. Total Release	Ci	4.68E+00	0.00E+00
	Average Release Rate For Period	uCi/sec	5.95E-01	0.00E+00

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.6-1 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES (Continued)

A.	Fission and Activation Gases	UNIT	QTR#3	QTR#4
	1. Total Release	Ci	0.00E+00	0.00E+00
	Average Release Rate For Period	uCi/sec	0.00E+00	0.00E+00
В.	Iodines			
	1. Total Iodine-131	Ci	0.00E+00	0.00E+00
	Average Release Rate For Period	uCi/sec	0.00E+00	0.00E+00
C.	Particulates			
	 Particulates (Half Life > 8 days) 	Ci	2.25E-06	2.63E-06
	Average Release Rate For Period	uCi/sec	2.86E-07	3.35E-07
	3. Gross Alpha Radioactivity	Ci	9.53E-08	2.13E-07
D.	Tritium			
	1. Total Release	Ci	3.33E+00	0.00E+00
	2. Average Release Rate For Period	uCi/sec	4.24E-01	0.00E+00

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.6-2 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

A.	Fission and Activation Gases	UNIT	QTR#1	QTR#2
	1. Total Release	Ci	1.15E+00	2.68E+00
	Average Release Rate For Period	uCi/sec	1.47E-01	3.41E-01
В.	Iodines			
	1. Total Iodine-131	Ci	0.00E+00	0.00E+00
	Average Release Rate For Period	uCi/sec	0.00E+00	0.00E+00
C.	Particulates			
	 Particulates (Half Life > 8 days) 	Ci	4.13E-06	4.90E-06
	Average Release Rate For Period	uCi/sec	5.25E-07	6.23E-07
	3. Gross Alpha Radioactivity	Ci	2.30E-08	1.42E-07
D.	Tritium			
	1. Total Release	Ci	9.88E-01	1.68E+01
	2. Average Release Rate For Period	uCi/sec	1.26E-01	2.13E+00

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.6-2 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES (Continued)

A.	Fission and Activation Gases	UNIT	QTR#3	QTR#4
	1. Total Release	Ci	3.21E-01	3.43E-01
	Average Release Rate For Period	uCi/sec	4.08E-02	4.36E-02
B.	Iodines			
	1. Total Iodine-131	Ci	3.94E-06	0.00E+00
	Average Release Rate For Period	uCi/sec	5.01E-07	0.00E+00
C.	Particulates			
	1. Particulates (Half Life > 8 days)	Ci	2.31E-04	3.68E-07
	Average Release Rate For Period	uCi/sec	2.94E-05	4.68E-08
	3. Gross Alpha Radioactivity	Ci	9.28E-08	1.00E-07
D.	Tritium			
	1. Total Release	Ci	1.10E+00	1.09E-01
	Average Release Rate For Period	uCi/sec	1.40E-01	1.39E-02

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.7-1 GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

	Nuclides		Continuo	us Mode	Batch	Mode
	Released	Unit	QTR#1	QTR#2	QTR#1	QTR#2
1. Fission	Gases					
1. 1 1001011	Ar-41	Ci	1.54E+01	0.00E+00	0.00E+00	0.00E+00
,	Kr-85m	Ci	8.32E-01	0.00E+00	0.00E+00	0.00E+00
	Kr-85	Ci	0.00E+00	0.00E+00	1.96E-02	0.00E+00
	Kr-87	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Kr-88	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Kr-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Kr-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xe-127	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xe-131m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xe-133m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xe-133	Ci	5.60E+00	0.00E+00	1.94E-02	0.00E+00
	Xe-135m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xe-135	Ci	5.72E+00	0.00E+00	0.00E+00	0.00E+00
	Xe-137	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xe-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total for P	eriod	Ci	2.76E+01	0.00E+00	3.90E-02	0.00E+00
2. lodines						
	I-131	Ci	0.00E+00	0.00E+00		
	I-132	Ci	0.00E+00	0.00E+00		
	I-133	Ci	0.00E+00	1.42E-05		
	I-134	Ci	0.00E+00	0.00E+00		
	I-135	Ci	0.00E+00	0.00E+00		
Total for P	eriod	Ci	0.00E+00	1.42E-05		
3. Particul	ates (> 8 D	• •		0.00=.00		
	Cr-51	Ci	0.00E+00	0.00E+00		
	Mn-54	Ci	0.00E+00	0.00E+00		
	Fe-55	Ci	0.00E+00			
	Co-57	Ci	0.00E+00	0.00E+00		
	Co-58	Ci	0.00E+00	0.00E+00		
	Fe-59 Co-60	Ci Ci	0.00E+00	0.00E+00		
			2.24E-07	6.91E-07 0.00E+00		
	Zn-65 Zr-95	Ci	0.00E+00 0.00E+00			
		Ci Ci		0.00E+00		
	Nb-95	Ci	0.00E+00	0.00E+00		

ST. LUCIE UNIT #1

TABLE 3.7-1 GASEOUS EFFLUENTS - GROUND LEVEL RELEASES (Continued)

	Nuclides Released	Unit	Continuou QTR#1	s Mode QTR#2
3. Particul	ates (> 8 Days)	(continu	ed)	
	Sr-89	Ci	0.00E+00	0.00E+00
	Sr-90	Ci	0.00E+00	0.00E+00
	Y-90	Ci	0.00E+00	0.00E+00
	Ru-103	Ci	0.00E+00	0.00E+00
	Ag-110m	Ci	0.00E+00	0.00E+00
	Sn-113	Ci	0.00E+00	0.00E+00
	Sb-124	Ci	0.00E+00	0.00E+00
	Sb-125	Ci	0.00E+00	0.00E+00
	Te-129m	Ci	0.00E+00	0.00E+00
	Cs-134	Ci	0.00E+00	0.00E+00
	Cs-136	Ci	0.00E+00	0.00E+00
	Cs-137	Ci	2.54E-06	3.31E-06
	Ba-140	Ci	0.00E+00	0.00E+00
	Ce-141	Ci	0.00E+00	0.00E+00
	Ce-144	Ci	0.00E+00	0.00E+00
Total for P	eriod	Ci	2.76E-06	4.00E-06
4. Particul	ates (< 8 Days)		
	Mn-56	Ci	0.00E+00	0.00E+00
	Ni-65	Ci	0.00E+00	0.00E+00
	Br-82	Ci	0.00E+00	0.00E+00
	Rb-88	Ci	0.00E+00	0.00E+00
	Rb-89	Ci	0.00E+00	0.00E+00
	Sr-91	Ci	0.00E+00	0.00E+00
	Sr-92	Ci	0.00E+00	0.00E+00
	Y-92	Ci	0.00E+00	0.00E+00
	Zr-97	Ci	0.00E+00	0.00E+00
	Nb-97	Ci	0.00E+00	0.00E+00
	Tc-99m	Ci	0.00E+00	0.00E+00
	Mo-99	Ci	0.00E+00	0.00E+00
	Sb-122	Ci	0.00E+00	0.00E+00
	Te-129	Ci	0.00E+00	0.00E+00
	Te-132	Ci	0.00E+00	0.00E+00
	Cs-138	Ci	0.00E+00	0.00E+00
	La-140	Ci	0.00E+00	0.00E+00
	Pr-144	Ci	0.00E+00	0.00E+00
	W-187	Ci	0.00E+00	0.00E+00
	Np-239	Ci	0.00E+00	0.00E+00
Total for Po	eriod	Ci	0.00E+00	0.00E+00

ST. LUCIE UNIT # 1

TABLE 3.7-1 GASEOUS EFFLUENTS - GROUND LEVEL RELEASES (Continued)

	Nuclides		Continuo	ıs Mode	Batch I	Mode
	Released	Unit	QTR#3	QTR#4	QTR#3	QTR#4
1. Fission		Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Ar-41 Kr-85m	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00
	Kr-85	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00
	Kr-87	Ci Cì	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00
	Kr-88	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00 0.00E+00
	Kr-89	Ci	0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00
	Kr-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xe-127	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00
	Xe-121 Xe-131m	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00
	Xe-131111 Xe-133m	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00	0.00E+00
	Xe-133iii	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00
	Xe-135 Xe-135m	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00
	Xe-135iii Xe-135	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00
						0.00E+00 0.00E+00
	Xe-137	Ci Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0.00E+00
Takal fau l	Xe-138	Ci	0.00E+00	0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00
Total for I	-eriod	CI	0.00E+00	0.00E+00	0.00E+00	0.00€⊤00
2. lodine:	S					
	l-131	Ci	0.00E+00	0.00E+00		
	I-132	Ci	0.00E+00	0.00E+00		
	I-133	Ci	0.00E+00	0.00E+00		
	I-134	Ci	0.00E+00	0.00E+00		
	I-135	Ci	0.00E+00	0.00E+00		
Total for I	Period	Ci	0.00E+00	0.00E+00		
3 Particu	ılates (> 8 D	avs)				
o. rando	Cr-51	Ci	0.00E+00	0.00E+00		
	Mn-54	Ci	0.00E+00	0.00E+00		
	Fe-55	Ci	0.00E+00	0.00E+00		
	Co-57	Ci	0.00E+00	0.00E+00		
	Co-58	Ci	0.00E+00	0.00E+00		
	Fe-59	Ci	0.00E+00	0.00E+00		
	Co-60	Ci	9.58E-07	2.02E-06		
	Zn-65	Ci	0.00E+00	0.00E+00		
	Zr-95	Ci	0.00E+00	0.00E+00		
	Nb-95	Ci	0.00E+00	0.00E+00		
	Sr-89	Ci	0.00E+00	0.00E+00		
	Sr-90	Ci	0.00E+00	0.00E+00		
		٠.	0.00.00	3.002.00		

ST. LUCIE UNIT #1

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.7-1 GASEOUS EFFLUENTS - GROUND LEVEL RELEASES (Continued)

IADLI	3.7-1 UASI		TILOLINIS	
			Continuo	
	Nuclides	Unit	QTR#3	QTR#4
2 Danking	Released	-\	aa.d\	
3. Particul	ates (> 8 Day		•	0.005+00
	Y-90	Ci	0.00E+00	0.00E+00
	Ru-103	Ci	0.00E+00	0.00E+00
	Ag-110m	Ci	0.00E+00	0.00E+00
	Sn-113	Ci	0.00E+00	0.00E+00
	Sb-124	Ci	0.00E+00	0.00E+00
	Sb-125	Ci	0.00E+00	0.00E+00
	Te-129m	Ci	0.00E+00	0.00E+00
	Cs-134	Ci	0.00E+00	0.00E+00
	Cs-136	Ci	0.00E+00	0.00E+00
	Cs-137	Ci	1.29E-06	6.13E-07
	Ba-140	Ci	0.00E+00	0.00E+00
	Ce-141	Ci	0.00E+00	0.00E+00
	Ce-144	Ci	0.00E+00	0.00E+00
Total for P	eriod	Ci	2.25E-06	2.63E-06
4. Particul	ates (< 8 Day	ys)		
	Mn-56	Ci	0.00E+00	0.00E+00
	Ni-65	Ci	0.00E+00	0.00E+00
	Br-82	Ci	0.00E+00	0.00E+00
	Rb-88	Ci	0.00E+00	0.00E+00
	Rb-89	Ci	0.00E+00	0.00E+00
	Sr-91	Ci	0.00E+00	0.00E+00
	Sr-92	Ci	0.00E+00	0.00E+00
	Y-92	Ci	0.00E+00	0.00E+00
	Zr-97	Ci	0.00E+00	0.00E+00
	Nb-97	Ci	0.00E+00	0.00E+00
	Tc-99m	Ci	0.00E+00	0.00E+00
	Mo-99	Ci	0.00E+00	0.00E+00
	Sb-122	Ci	0.00E+00	0.00E+00
	Te-129	Ci	0.00E+00	0.00E+00
	Te-132	Ci	0.00E+00	0.00E+00
	Cs-138	Ci	0.00E+00	0.00E+00
	La-140	Ci	0.00E+00	0.00E+00
	Pr-144	Ci	0.00E+00	0.00E+00
	W-187	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00
T_4_1 £ D	Np-239	Ci C:	0.00E+00	0.00E+00
Total for P	erioa	Ci	0.00E+00	0.00E+00

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.7-2 GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

	Nuclides	es Continuous Mode		В	atch Mode	
	Released	Unit	QTR#1	QTR#2	QTR#1	QTR#2
1. Fission	Gases					
	Ar-41	Ci	0.00E+00	0.00E+00	2.04E-	-01 8.55E-01
	Kr-85m	Ci	0.00E+00	0.00E+00	2.45E-	.05 0.00E 00
	Kr-85	Ci	0.00E+00	0.00E+00	2.63E-	01 1.54E-01
	Kr-87	Ci	0.00E+00	0.00E+00	0.00E+	-00 0.00E+00
	Kr-88	Ci	0.00E+00	0.00E+00	0.00E+	-00 0.00E+00
	Kr-89	Ci	0.00E+00	0.00E+00	0.00E+	-00 0.00E+00
	Kr-90	Ci	0.00E+00	0.00E+00	0.00E+	-00 0.00E+00
	Xe-127	Ci	0.00E+00	0.00E+00	0.00E+	-00 0.00E+00
	Xe-131m	Ci	0.00E+00	0.00E+00	3.65E-	-03 4.74E-04
	Xe-133m	Ci	0.00E+00	0.00E+00	6.96E-	
	Xe-133	Ci	0.00E+00	0.00E+00	6.77E-	01 1.66E+00
	Xe-135m	Ci	0.00E+00	0.00E+00	0.00E+	-00 0.00E+00
	Xe-135	Ci	0.00E+00	0.00E+00	5.20E-	-03 6.04E-03
	Xe-137	Ci	0.00E+00	0.00E+00	0.00E+	
	Xe-138	Ci	0.00E+00	0.00E+00	0.00E+	-00 0.00E+00
Total for P	eriod	Ci	0.00E+00	0.00E+00	1.15E+	-00 2.68E+00
2. lodines						
	I-131	Ci	0.00E+00	0.00E+00		
	I-132	Ci	0.00E+00	0.00E+00		
	I-133	Ci	8.22E-05	0.00E+00		
	I-134	Ci	0.00E+00	0.00E+00		
	I-135	Ci	0.00E+00	0.00E+00		
Total for P	eriod	Ci	8.22E-05	0.00E+00		
3. Particul	ates (> 8 D	ays)				
	Cr-51	Ci	0.00E+00	0.00E+00		
	Mn-54	Cì	0.00E+00	0.00E+00		
	Fe-55	Ci	0.00E+00	0.00E+00		
	Co-57	Ci	0.00E+00	0.00E+00		
	Co-58	Ci	0.00E+00	1.11E-07		
	Fe-59	Ci	0.00E+00	0.00E+00		
	Co-60	Ci	0.00E+00	2.19E-06		
	Zn-65	Ci	0.00E+00	0.00E+00		
	Zr-95	Ci	0.00E+00	0.00E+00		
	Nb-95	Ci	0.00E+00	0.00E+00		

ST. LUCIE UNIT # 2

TABLE 3.7-2 GASEOUS EFFLUENTS - GROUND LEVEL RELEASES (Continued)

	Continuous Mode				
	Nuclides	Unit	QTR#1	QTR#2	
	Released				
3. Particul	ates (> 8 Days		•	0.007.00	
	\$r-89	Ci	0.00E+00	0.00E+00	
	Sr-90	Ci	0.00E+00	0.00E+00	
	Y-90	Ci	0.00E+00	0.00E+00	
	Ru-103	Ci	0.00E+00	0.00E+00	
	Ag-110m	Ci	0.00E+00	0.00E+00	
	Sn-113	Ci	0.00E+00	0.00E+00	
	Sb-124	Ci	0.00E+00	0.00E+00	
	Sb-125	Ci	8.67E-08	0.00E 00	
	Te-129m	Ci	0.00E+00	0.00E+00	
	Cs-134	Ci	0.00E+00	0.00E+00	
	Cs-136	Ci	0.00E+00	0.00E+00	
	Cs-137	Ci	4.04E-06	2.60E-06	
	Ba-140	Ci	0.00E+00	0.00E+00	
	Ce-141	Ci	0.00E+00	0.00E+00	
	Ce-144	Ci	0.00E+00	0.00E+00	
Total for P	eriod	Ci	4.13E-06	4.90E-06	
4. Particul	ates (< 8 Days	s)			
	Mn-56	Ci	0.00E+00	0.00E+00	
	Ni-65	Ci	0.00E+00	0.00E+00	
	Br-82	Ci	0.00E+00	0.00E+00	
	Rb-88	Ci	0.00E+00	0.00E+00	
	Rb-89	Ci	0.00E+00	0.00E+00	
	Sr-91	Ci	0.00E+00	0.00E+00	
	Sr-92	Ci	0.00E+00	0.00E+00	
	Y-92	Ci	0.00E+00	0.00E+00	
	Zr-97	Ci	0.00E+00	0.00E+00	
	Nb-97	Ci	1.44E-04	0.00E+00	
	Tc-99m	Ci	0.00E+00	0.00E+00	
	Mo-99	Ci	0.00E+00	0.00E+00	
	Sb-122	Ci	0.00E+00	0.00E+00	
	Te-129	Ci	0.00E+00	0.00E+00	
	Te-132	Ci	0.00E+00	0.00E+00	
	Cs-138	Ci	0.00E+00	0.00E+00	
	La-140	Ci	0.00E+00	0.00E+00	
	Pr-144	Ci	0.00E+00	0.00E+00	
	W-187	Ci	0.00E+00	0.00E+00	
	Np-239	Ci	0.00E+00	0.00E+00	
Total for P	eriod	Ci	1.44E-04	0.00E+00	

TABLE 3.7-2 GASEOUS EFFLUENTS - GROUND LEVEL RELEASES (Continued)

	Nuclides		Continuous Mo		Bato	h Mode	
	Released	Unit	QTR#3	QTR#4	QTR#3	QTR#4	
1 Finaion	Canan						
1. Fission	Ar-41	Ci	0.00E+00	0.00E+00	1.47E-01	1.69E-01	
	Kr-85m	Ci	0.00E+00	0.00E+00	7.02E-05		
	Kr-85	Ci	0.00E+00	0.00E+00 0.00E+00	1.11E-02		
	Kr-87	Ci	0.00E+00	0.00E+00	0.00E+00		
	Kr-88	Ci	0.00E+00	0.00E+00	0.00E+00		
	Kr-89	Ci	0.00E+00	0.00E+00	0.00E+00		
	Kr-90	Ci	0.00E+00	0.00E+00 0.00E+00	0.00E+00		
	Xe-127	Ci	0.00E+00	0.00E+00	0.00E+00		
	Xe-121	Ci	0.00E+00	0.00E+00	0.00E+00		
	Xe-131m	Ci	0.00E+00	0.00E+00	0.00E+00		
	Xe-133	Ci	0.00E+00	0.00E+00	1.54E-01		
	Xe-135m	. Ci	0.00E+00	0.00E+00	0.00E+00		
	Xe-135III	Ci	0.00E+00	0.00E+00 0.00E+00	8.60E-03		
	Xe-137	Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00		
		Ci		0.00E+00 0.00E+00	0.00E+00 0.00E+00		
Total for D	Xe-138	Ci	0.00E+00	0.00E+00 0.00E+00	3.21E-01		
Total for P	enou	CI	0.00E+00	0.00E+00	3.21E-01	3.43E-01	
2. lodines							
	I-131	Ci	3.94E-06	0.00E+00			
	I-132	Ci	0.00E+00	0.00E+00			
	I-133	Ci	6.09E-05	0.00E+00			
	I-134	Ci	0.00E+00	0.00E+00			
	I-135	Ci	0.00E+00	0.00E+00			
Total for P	eriod	Ci	6.48E-05	0.00E+00			
3 Particul	lates (> 8 D	lave)					
o. i aitiou	Cr-51	Ci	0.00E+00	0.00E+00			
	Mn-54	Ci	0.00E+00	0.00E+00			
	Fe-55	Ci	0.00E+00	0.00E+00			
	Co-57	Ci	0.00E+00	0.00E+00			
	Co-58	Ci	0.00E+00	0.00E+00		•	
	Fe-59	Ci	.0.00E+00	0.00E+00			
	Co-60	Ci	1.07E-04	0.00E+00			
	Zn-65	Ci	0.00E+00	0.00E+00			
	Zr-95	Ci	0.00E+00	0.00E+00			
	Nb-95	Ci	0.00E+00	0.00E+00			
	110 00	J i	0.00L 100	J.JUL 100			

ST. LUCIE UNIT # 2

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.7-2 GASEOUS EFFLUENTS - GROUND LEVEL RELEASES (Continued)

		Continuo	ıs Mode
Nuclides	Unit	QTR#3	QTR#4
Released			
3. Particulates (> 8 Day		-	
Sr-89	Ci	0.00E+00	0.00E+00
Sr-90	Ci	0.00E+00	0.00E+00
Y-90	Ci	0.00E+00	0.00E+00
Ru-103	Ci	0.00E+00	0.00E+00
Ag-110m	Ci	0.00E+00	0.00E+00
Sn-113	Ci	0.00E+00	0.00E+00
Sb-124	Ci	0.00E+00	0.00E+00
Sb-125	Ci	0.00E+00	0.00E+00
Te-129m	Ci	0.00E+00	0.00E+00
Cs-134	Ci	0.00E+00	0.00E+00
Cs-136	Ci	0.00E+00	0.00E+00
Cs-137	Ci	1.24E-04	3.68E-07
Ba-140	Ci	0.00E+00	0.00E+00
Ce-141	Ci	0.00E+00	0.00E+00
Ce-144	Ci	0.00E+00	0.00E+00
Total for Period	Ci	2.31E-04	3.68E-07
4. Particulates (< 8 Day	vs)		
Mn-56	Ci	0.00E+00	0.00E+00
Ni-65	Ci	0.00E+00	0.00E+00
Br-82	Ci	0.00E+00	0.00E+00
Rb-88	Ci	0.00E+00	0.00E+00
Rb-89	Ci	0.00E+00	0.00E+00
Sr-91	Ci	0.00E+00	0.00E+00
Sr-92	Ci	0.00E+00	0.00E+00
Y-92	Ci	0.00E+00	0.00E+00
Zr-97	Ci	0.00E+00	0.00E+00
Nb-97	Ci	0.00E+00	0.00E+00
Tc-99m	Ci	0.00E+00	0.00E+00
Mo-99	Cì	0.00E+00	0.00E+00
Sb-122	Ci	0.00E+00	0.00E+00
Te-129	Ci	0.00E+00	0.00E+00
Te-132	Ci	0.00E+00	0.00E+00
Cs-138	Ci	0.00E+00	0.00E+00
La-140	Ci	0.00E+00	0.00E+00
Pr-144	Ci	0.00E+00	0.00E+00
W-187	Ci	0.00E+00	0.00E+00
Np-239	Ci	0.00E+00	0.00E+00
Total for Period			

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.8-1 GASEOUS EFFLUENTS - DOSE SUMMATION

AGE GROUP: ADULT

	Bone	Liver	Thyroid	Kidney
Dose Pathway	mrem	mrem	mrem	mrem
Inhalation	2.09E-07	2.76E-04	2.78E-04	3.48E-04
Grass-Goat-Milk	7.13E-06	5.39E-05	4.52E-05	5.83E-05
Ground Plane	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Garden	1.46E-07	4.76E-06	4.77E-06	5.81E-06
Meat	1.29E-07	4.39E-06	4.21E-06	5.37E-06
Total Dose	7.62E-06	3.39E-04	3.32E-04	4.18E-04

	Lung	GI-LLI	Total Body
Dose Pathway	mrem	mrem	mrem
Inhalation	2.77E-04	2.76E-04	2.76E-04
Grass-Goat-Milk	4.56E-05	4.44E-05	4.77E-05
Ground Plane	0.00E+00	0.00E+00	5.10E-05
Garden	4.59E-06	4.59E-06	4.63E-06
Meat	4.23E-06	4.28E-06	4.28E-06
Total Dose	3.32E-04	3.29E-04	3.83E-04

Sector : SE	Range:	1.5	miles
			1

Noble Gases	mrad
Gamma Air Dose	7.93E-03
Beta Air Dose	3.66E-03

Sector: SE Range: 1.5 miles

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

TABLE 3.8-2 GASEOUS EFFLUENTS - DOSE SUMMATION

AGE GROUP: ADULT

	Bone	Liver	Thyroid	Kidney
Dose Pathway	mrem	mrem	mrem	mrem
Inhalation	2.60E-06	8.27E-04	8.42E-04	8.25E-04
Grass-Goat-Milk	6.98E-05	1.98E-04	1.24E-04	1.35E-04
Ground Plane	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Garden	2.81E-06	2.47E-05	2.66E-05	2.21E-05
Meat	2.74E-06	2.53E-05	2.18E-05	2.26E-05
Total Dose	7.80E-05	1.07E-03	1.01E-03	1.00E-03

	Lung	GI-LLI	Total Body
Dose Pathway	mrem	mrem	mrem
Inhalation	8.50E-04	8.25E-04	8.26E-04
Grass-Goat-Milk	1.13E-04	1.05E-04	1.65E-04
Ground Plane	0.00E+00	0.00E+00	1.15E-03
Garden	2.12E-05	2.20E-05	2.34E-05
Meat	2.18E-05	2.51E-05	2.42E-05
Total Dose	1.01E-03	9.76E-04	2.19E-03

Sector : SE	Range:	1.5	miles

Noble Gases	mrad
Gamma Air Dose	6.99E-04
Beta Air Dose	4.16E-04

Sector: SE

Range: 1.5 miles

UNITS 1 AND 2, TABLE 3.9

A. Solid Waste Shipped Off-Site for Burial or Disposal

1. Type of Waste	Unit	12 Mo. Period	Error %
a. Spent Resin, Process Filters (Note 6)	M3 Ci	3.93E+0 2.05E+2	2.0 E+1
b. Dry Compressible Waste (Note 5)	M3 Ci	3.86E+2 1.28E+1	2.0 E+1
c. Irradiated Components	M3 Ci	0	N/A*
d. Other (Note 7)			
Reactor Head and Pressurizer	M3 Ci	2.54E+2 6.05E+1	2.0 E+1

2. Estimate of Major Nuclide Composition (By Waste Type)

Category	Nuclides	%
a.	Fe 55	4.25E+1
	Ni 63	3.28E+1
	Co 60	1.04E+1
	Mn 54	5.27E+0
	Cs 137	2.18E+0
	Co 58	2.00E+0
	Tc 99	1.58E+0
	H 3	1.01E+0
	Cs 134	7.90E-1
b.	Fe 55	5.56E+1
	Co 60	2.63E+1
	Ni 63	9.90E+0
	Cs 137	4.12E+0
	Co 58	1.88E+0
	Mn 54	1.01E+0
C.	N/A*	N/A*

2. Estimate of major nuclide composition (continued)

Category	Nuclides	%
d. 1.	Fe 55 Co 60 Ni 63 Co 58 Cr 51 Mn 54 Zr 95 Nb 95 Sb 125	4.71E+1 2.07E+1 9.57E+0 9.44E+0 4.35E+0 2.57E+0 2.53E+0 2.04E+0 5.45E-1

3. Solid Waste Disposition.

Number of Shipments	Mode of Transportation	Destination
4	Sole Use Barge and Truck	RACE- Memphis, TN
1	Sole Use Truck	EnergySolutions- Oak Ridge, TN
4	Sole Use Truck	Studsvik- Erwin, TN
14	Sole Use Truck	RACE- Memphis, TN

B. Irradiated Fuel Shipments

Number of Shipments	Mode of Transportation	Destination
0	N/A*	N/A*

^{*}N/A = Not Applicable

UNITS 1 AND 2, TABLE 3.9 (CONTINUED)

Waste Class	Total Volume Cubic Feet	Total Curies (Note 1)	Principal Radionuclides (Notes 1 and 2)	Type of Waste (Note 3)	Category Reg. Guide 1.21	Type of Container (Note 4)	Solidification Agent
Class A	13,488.45	4.56E+0	N/A	PWR Compressible Waste (note 5)	1.b.	Non- Specification General Design Package	None
Class A	8,961.73	6.05E+1	Ni 63, Co 60	PWR Non- Compressible Waste (note 7)	1.d.1.	Non- Specification General Design Package	None
Class B	154.04	8.20E+0	Ni 63, TRU	PWR Non- Compressible Waste (note 5)	1.b.	DOT Certified Type A Package	None
Class B	3.22	1.02E+1	Co 60, Ni 63, Cs 137, Sr 90, Tc 99 Nuclides T1/2 <5 yrs., TRU	PWR lon- Exchange Resin (note 6)	1.a.	NRC Certified Type B	None
Class C	60.62	4.41E+1	H3, Ni 63, Pu 241, Cs 137, Nuclides T 1/2 <5 yrs., TRU	PWR Process Filters (note 6)	1.a.	NRC Certified Type B	None
Class C	74.82	1.50E+2	I 129, Co 60, Ni 63, Cs 137, Sr 90, Nuclides T 1/2 <5 yrs., TRU	PWR Ion- Exchange Resin (note 6)	1.a.	NRC Certified Type B	None

UNITS 1 AND 2, TABLE 3.9 (CONTINUED)

SOLID WASTE SUPPLEMENT

NOTE 1:

The total radionuclide activity and composition of solid waste shipped from the St. Lucie Plant, Units 1 and 2 are determined using a combination of qualitative techniques. In general, the St. Lucie Plant follows the guidelines outlined in the Low Level Waste Branch Technical Position (BTP) on Radioactive Waste Classification (5/11/83) for these determinations. The most frequently used techniques for determining the total activity in a package are the "Dose—to-Curie" method and "Concentration Times Volume or Mass" calculations. Where appropriate, engineering type activation analyses may be applied. Since each of the above methodologies involve, to some extent, qualitative parameters, the total activity is considered to be an estimate.

The composition of radionuclides in the waste is determined by both on-site analyses for principal gamma emitters and periodic off-site analyses for other radionuclides. The on-site analyses are performed either on a batch basis or on a routine basis using reasonably representative samples as appropriate for the waste type. Off-site analyses are used to establish scaling factors or other estimates for radionuclides such as H3, C14, Fe55, Sr90, Tc99, I129, Pu238, Pu239/240, Pu241, Am241, Cm242 and Cm243/244.

- NOTE 2:
- "Principal Radionuclides" refer to those radionuclides contained in the waste in concentrations greater than 0.01 times the concentration of nuclides listed in Table 1 or 0.01 times the smallest concentration of nuclides listed in Table 2 of 10 CFR 61.
- NOTE 3:
- "Type of Waste" is generally specified as described in NUREG 0782, Draft Environmental Impact Statement on 10 CFR 61, "Licensing Requirements for Land Disposal of Radioactive Waste".
- NOTE 4:
- "Type of Container" refers to the transport package.
- NOTE 5:

The volume and activity listed for "Dry Compressible Waste" represent the quantity of material that during the reporting period was sent to the licensed disposal facilities. Some of this material was shipped to a contract vendor for volume reduction or recycle prior to final disposal at the licensed disposal facilities. During the reporting period, seventeen (17) shipments of dry active waste and non-compressible waste (22,627 cubic feet, 1.21 E+1 curies) were made from the St. Lucie Plant to the volume reduction facilities. These materials were shipped via "Sole Use Truck" in non-specification, general design containers.

NOTE 6:

The volume and activity listed for "Spent Resin, Process Filters" represent the quantity of material that during the reporting period was sent to the licensed disposal facilities. Some of this material was shipped to a contracted vendor as dewatered bead resin and process filters for volume reduction prior to final disposal at the licensed disposal facility. During the reporting period, four (4) shipments of bead resin and process filters (338.1 cubic feet, 1.78E+2 curies) were made from the St. Lucie Plant to the contract vendor for volume reduction and disposal.

NOTE 7:

The volume and activity listed for "Other" (Reactor Head and Pressurizer) represent the quantity of material that during the reporting period was sent to the licensed disposal facility. This material was shipped to a contracted vendor for volume reduction prior to final disposal at the licensed disposal facility.

ATTACHMENT A UNPLANNED RELEASES

ATTACHMENT - A (Page 1 of 2) Unplanned Release of 2A Gas Decay Tank

Description of the event:

On October 6, 2006, following maintenance on the 2A Gas Decay Tank, the tank was pressurized to 120# with nitrogen. Later, the field operator identified the 2A GDT had dropped to 70#. The Operating Crew entered the Waste Gas Off-Normal procedure, 2-0530030, to investigate the cause of the leakage. Valve V6580 was identified as leaking past its closed seat due to a misadjusted reach rod. Maintenance made an adjustment to the reach rod for V6580 and all leakage stopped. Subsequent monitoring of the tank's pressure confirmed that the leak had been corrected.

Actions taken to prevent a recurrence:

1) This event is an isolated incident due to an equipment problem. Corrective maintenance adjusted the reach rod and stopped the leak.

Consequences of the unplanned release:

Gas Decay Tank 2A UNPLANNED RELEASE DATA	
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Nuclide	Sample	Release
Symbol	uCi/cc	Curies
Ar-41	0.00E+00	0.00E+00
Kr-85m	0.00E+00	0.00E+00
Kr-87	0.00E+00	0.00E+00
Kr-88	0.00E+00	0.00E+00
Xe-133m	0.00E+00	0.00E+00
Xe-133	0.00E+00	0.00E+00
Xe-135m	0.00E+00	0.00E+00
Xe-135	0.00E+00	0.00E+00
Xe-137	0.00E+00	0.00E+00
Xe-138	0.00E+00	0.00E+00
Gas Total	0.00E+00	0.00E+00

Release Start Date	10/6/2006	
Release End Date	10/6/2006	
Release Minutes	2.20E+02	minutes
Release Volume	1.39E+07	cc.s
Total Body Dose Rate	3.35E-09	mRem/yr
Total Body Dose Rate	2.23E-08	percent site limit
Skin Dose Rate	0.00E+00	mRem/yr
Skin Dose Rate	0.00E+00	percent site limit
Release Rate	2.23E+00	ft3/minute
Gamma Air Dose	0.00E+00	mrad
Gamma Air Dose	0.00E+00	percent annual limit
Beta Air Dose	0.00E+00	mrad
Beta Air Dose	0.00E+00	percent annual limit

Tritium

1.39E-07 6.19E-05 dose contribution was negligible

Particulates - None detected in Gas Decay Tank 2A

Iodines - None detected in Gas Decay Tank 2A

No Site Release Rate, Quarterly, or Annual Dose Limit(s) were exceeded.

ATTACHMENT - A (Page 2 of 2) Unplanned Release of the 1B GDT

Description of the event:

On 4/15/06, the Unit 1 Control Room was notified of a loss of 16 psig from the 1B Gas Decay Tank(GDT). At that time, it did not meet the threshold of an unplanned gas release as indicated in the off-normal procedure, however a leak search was commenced. The oxygen analyzers, waste gas compressors and accessible piping in the RAB were checked for leaks, none were found. Pressure held steady for the day, but in the afternoon, it was identified the 1B GDT had lost an additional three pounds, which met entry criteria for the off-normal. The off-normal procedure was entered, and the gas analyzers were isolated, and pressure stabilized. Engineering assisted Operations with the search, but could not determine the location of the leak.

After three days of extensive leak searches, the gas analyzers were returned to service and the system is holding pressure. Therefore, the location of the leak is unknown.

Actions taken to prevent a recurrence:

The Unit 1 and 2 Off-normal operating procedures for gas leakage have been revised to clarify operator actions that need to be taken in the event of GDT pressure loss.

Consequences of the unplanned release:

			Gas Decay Tank 1B UNPLANNED RELEASE	DATA	
Nuclide	Sample	Release	Release Start Date	4/15/2006	
Symbol	uCi/cc	Curies	Release End Date	4/15/2006	Ī
Ar-41	0.00E+00	0.00E+00	Release Minutes	1.44E+03	minutes
Kr-85m	0.00E+00	0.00E+00	Release Volume	5.55E+06	cc.s
Kr-87	0.00E+00	0.00E+00	Total Body Dose Rate	1.15E-08	mRem/yr
Kr-88	0.00E+00	0.00E+00	Total Body Dose Rate	2.30E-09	percent site limit
Xe-133m	7.36E-06	4.00E-05	Skin Dose Rate	6.36E-09	mRem/yr
Xe-133	1.09E-04	6.05E-04	Skin Dose Rate	2.12E-10	percent site limit
Xe-135m	0.00E+00	0.00E+00	Release Rate	1.40E-01	ft3/minute
Xe-135	0.00E+00	0.00E+00	Gamma Air Dose	1.15E-08	mrad
Xe-137	0.00E+00	0.00E+00	Gamma Air Dose	1.15E-07	percent annual limit
Xe-138	0.00E+00	0.00E+00	Beta Air Dose	3.52E-08	mrad
Gas Total	1.16E-04	6.45E+02	Beta Air Dose	1.76E-07	percent annual limit

Tritium 2.31E-06 1.30E-05 dose contribution was negligible

Particulates -Cs-137 4.35E-09 uCi/cc = 2.41E-08 Curies dose contribution was negligible

lodines - None detected in Gas Decay Tank 1B dose contribution was negligible

No Site Release Rate, Quarterly, or Annual Dose Limit(s) were exceeded.

ATTACHMENT B RADIATION MONITORS OUT OF SERVICE FOR >30 DAYS

ATTACHMENT B Radiation Monitors Out of Service for Greater than 30 Days

Radiation Monitors Out of Service for Greater Than Thirty Days

Unit 1 Liquid Waste Discharge Monitor

The Unit 1 Liquid Rad Waste Discharge monitor has been out of service for greater than 30 days several times during the year. The monitor was declared out of service due to failure of the flow switch internal to the radiation monitor skid. The flow switch detects if there is sample flow going to the detector well, and to annunciate when the liquid waste discharge flow drops below a preset value, signaling the end of the liquid release. This flow switch has been clogging up with debris during the liquid discharges, and not annunciating in the control room when required. This switch has been replaced multiple times, with the same results. A back-flushing procedure was implemented, but has not had consistent positive results. Replacement of the switch with a new design that has no moving parts will be required. This replacement is currently under investigation by the St. Lucie Engineering Department.

Unit 1 Fuel Handling Building Radiation Monitor

The Unit 1 Fuel Handling Radiation Monitor was declared out of service on 9/11/2006 due to a low flow alarm. The photohelic gauge was determined to be cause of the failure. A replacement photehelic gauge was removed from stock and installed. This replacement part was found to be defective. No additional replacements parts were available on site and the manufacturer was unable to supply additional parts in a timely manner. A new photohelic gauge was installed on 11/8/2006. The monitor was calibrated and returned to service on 11/9/2006.

Unit 2 Fuel Handling Building Radiation Monitor

The Unit 2 Fuel Handling Building radiation monitor was declared out of service on 7/23/2006, after the Control Room received multiple alarms for the monitor. The initial repairs attempts were unsuccessful due to the badly corroded condition of the monitor due to extended exposure to the moist salt air environment. The building that houses the monitor is not air conditioned and is force ventilated by outside air. This is original plant design and is the main contributor to the degradation of the monitor.

Maintenance is continuing to attempt repairs to the monitor to replace affected components and keep the monitor operating, but the long term plan is to replace the monitor skid and provide an environmentally controlled enclosure for the monitor. Change Authorization Request 04-056 has been generated to provide replacement of the radiation monitor skid and installation of an air conditioned enclosure.

ATTACHMENT C
INFORMATION FOR INDUSTRY TRITIUM INITIATIVE

Attachment - C Information for Industry Tritium Initiative

Groundwater Well Samples

Well ID	H3 June	H3 October	H3 December
Diesel -Unit 1 & 2	uCi/ml	uCi/ml	uCi/ml
MW-1	<5.00E-07	<5.00E-07	
MW-3	4.60E-07	6.30E-07]
MW-4	<5.00E-07	1.28E-05]
MW-5	<5.00E-07	<5.00E-07	}
MW-6	1.65E-06	1.41E-05	1.09E-05
MW-7	<5.00E-07	<5.00E-07	
MW-9	<5.00E-07	<5.00E-07	
MW-10	<5.00E-07	<5.00E-07]
MW-11	<5.00E-07	5.10E-07]
MW-12	<5.00E-07	<5.00E-07	1
MW-13	<5.00E-07	<5.00E-07	
MW-15	<5.00E-07	6.60E-07	
MW-16	<5.00E-07	<5.00E-07	
MW-17	8.60E-07	5.00E-07	
MW-18D	5.00E-07	<5.00E-07	
MW-19	<5.00E-07	<5.00E-07	1
MW-20	<5.00E-07	<5.00E-07	
MW-21	<5.00E-07	<5.00E-07	
MW-22D	<5.00E-07	<5.00E-07	1
MW-24	<5.00E-07	<5.00E-07	1
MW-25	<5.00E-07	<5.00E-07	
MW-26	<5.00E-07	<5.00E-07	
RW-1	<5.00E-07	<5.00E-07	
RW-2	<5.00E-07	5.60E-07	
RW-3	<5.00E-07	<5.00E-07	1
RW-4	<5.00E-07	<5.00E-07	1
RW-5	<5.00E-07	<5.00E-07	1
PCW-1	9.30E-07	*6.10E-07	Sampled 8/2/06*
PCW-2	1.25E-06	*4.90E-07	Sampled 8/2/06*
PCW-3	1.22E-06	*6.10E-07	Sampled 8/2/06*

Attachment - C Information for Industry Tritium Initiative

Groundwater Well Samples

	TLO Wells	
Unit 1 - MW001	1.78E-06	5.37E-06
Unit 1 - MW002	4.35E-06	5.57E-06
Unit 1 - MW003	3.19E-06	9.53E-06
Unit 1 - MW004	<5.00E-07	7.80E-07
Unit 2 - MW001	<5.00E-07	<5.00E-07
Unit 2 - MW002	2.08E-06	9.10E-07
Unit 2 - MW003	2.06E-06	2.15E-06
	Mixed Plum	e.
MW-1	<5.00E-07	<5.00E-07
MW-3	<5.00E-07	<5.00E-07
MW-4	<5.00E-07	7.50E-07
MW-5	2.10E-06	6.50E-07
MW-6	<5.00E-07	<5.00E-07
· MW-7A	<5.00E-07	<5.00E-07
MW-10	<5.00E-07	<5.00E-07
MW-11	1.12E-06	8.30E-07
MW-12	<5.00E-07	<5.00E-07
MW-13D	<5.00E-07	5.80E-07
MW-14	<5.00E-07	<5.00E-07
MW-15D	<5.00E-07	1.08E-06
***************************************	uetralization B	***************************************
PSLED-1	<5.00E-07	<5.00E-07
PSLED-2	<5.00E-07	<5.00E-07
PSLED-3	<5.00E-07	<5.00E-07
PSLED-4	<5.00E-07	<5.00E-07
MW-1	<5.00E-07	<5.00E-07
MW-2	<5.00E-07	<5.00E-07

Attachment - C Information for Industry Tritium Initiative (Continued)

Inadvertent Release to On-site Settling Basin

On August 22nd, 2006, a sample taken from the East Settling Basin located on the Owner Controlled Property, inside of the Protected Area, was found to have tritium activity present at 3.39E-6 uCi/ml. Previous samples taken from this basin had been less than minimum detectable activity. Follow-up samples and investigation into this matter determined that a valve leak on a containment spray line in an underground vault had migrated to the settling basin. The valve leak was repaired.

State and local authorities, as well as the NRC, were notified of the leak. The settling basin is being monitored for activity weekly.