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FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT UNIT NO. 1

LICENSE NO. DPR-67

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

FOR THE PERIOD

January 1, 1983 THROUGH June 30, 1983

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EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION

1. Regulatory Limits

1.1 For liquid waste effluents

- a. The concentration of radioactive materials released in liquid waste effluents from all reactors at the site shall not exceed the value specified in 10 CFR Part 20, Appendix B, Table II, Column 2, for unrestricted areas.
- b. The cumulative release of radioactive materials in liquid waste effluents, excluding tritium and dissolved gases, shall not exceed 10 Ci/reactor/calendar quarter.
- c. The cumulative release of radioactive material in liquid waste effluents, excluding tritium and dissolved gases, shall not exceed 20 Ci/reactor in any 12 consecutive months.

1.2 For gaseous waste effluents

- a. (1) The release rate limit of noble gases from the site shall be such that:

$$2.0 (Q_{TV} \bar{K}_V) \leq 1$$

and

$$0.33 (Q_{TV} [\bar{L}_V + 1.1 \bar{N}_V]) \leq 1$$

- (2) The release rate limit of all radioiodines and radioactive materials in particulate form with half-lives greater than eight days, released to the environs as part of the gaseous wastes from the site shall be such that:

$$5.5 \times 10^3 Q_V \leq 1$$

- b. (1) The average release rate of noble gases from the site during any calendar quarter shall be such that:

$$13 (Q_{TV} \bar{N}_V) \leq 1$$

and

$$6.3 (Q_{TV} \bar{M}_V) \leq 1$$

- (2) The average release rate of gases from the site during any 12 consecutive months shall be:

$$25 (Q_{TV} \bar{N}_V) \leq 1$$

and

$$13 (Q_{TV} \bar{M}_V) \leq 1$$

EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION
(continued)

1. Regulatory Limits: (continued)

1.2 (b) (continued)

- (3) The average release rate per site of all radioiodines and radioactive materials in particulate form with half-lives greater than eight days during any calendar quarter shall be such that:

$$13 (5.5 \times 10^3 Q_V) \leq 1$$

- (4) The average release rate per site of all radioiodines and radioactive materials in particulate form with half-lives greater than eight days during any period of 12 consecutive months shall be such that:

$$25 (5.5 \times 10^3 Q_V) \leq 1$$

- (5) The amount of Iodine -131 released during any calendar quarter shall not exceed 2 Ci/reactor.
- (6) The amount of Iodine - 131 released during any period of the 12 consecutive months shall not exceed 4 Ci/reactor.

2. Maximum Permissible Concentrations

AIR - 10 CFR Part 20, Appendix B, Table II, Column 1

WATER - 10 CFR Part 20, Appendix B, Table II, Column 2

3. Average energy of fission and activation gases in gaseous effluents is not applicable.
4. Measurements and Approximations of Total Radioactivity

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

a. Sampling Error

The error associated with volume measurement devices, flow measuring devices, etc. based on calibration data and design tolerances has been conservatively estimated collectively to be less than $\pm 10\%$.

b. Analytical Error for Nuclides

<u>Type</u>	<u>Average</u>	<u>Maximum</u>
Liquid	$\pm 9\%$	$\pm 30\%$
Gaseous	$\pm 10\%$	$\pm 35\%$

EFFLUENT AND WASTE DISPOSAL SUPPLEMENTAL INFORMATION
(continued)

4. Measurements and Approximations of Total Radioactivity (continued)
4.1(b) (continued)

TABLE 3.1
RADIOACTIVE LIQUID EFFLUENT SAMPLING AND ANALYSIS

LIQUID SOURCE	SAMPLING FREQUENCY	TYPE OF ANALYSIS	METHOD OF ANALYSIS
Monitor Tank Releases ¹	Each Batch	Principal Gamma Emitters	p.h.a.
	Monthly Composite	H-3	L.S.
		Gross Alpha	G.F.P.
	Quarterly Composite	SR-90 SR-89	C.S. & L.S.
Continuous Releases	No continuous activity releases for this reporting period		

¹Boric Acid Evaporator condensate is normally recovered to the Primary Water Storage Tank for recycling into the reactor coolant system and does not contribute to liquid waste effluent totals.

p.h.a. - gamma spectrum pulse height analysis using Lithium Germanium detectors. All peaks are identified and quantified

L.S. - Liquid Scintillation counting

C.S. - Chemical Separation

G.F.P. - Gas Flow Proportional Counting

TABLE 3.2
RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS

GASEOUS SOURCE	SAMPLING FREQUENCY	TYPE OF ANALYSIS	METHOD OF ANALYSIS
Waste gas Decay Tank Releases	Each Tank	Principal Gamma Emitters	(G, C, P) - p.h.a.
		H-3	L.S.
Containment Purge Releases	Each Purge	Principal Gamma Emitters	(G, C, P) - p.h.a.
		H-3	L.S.
Plant Vent	Weekly	Principal Gamma Emitters	(G, C, P) - p.h.a.
		H-3	L.S.
	Monthly Composite (Particulates)	Gross Alpha	P - G.F.P.
	Quarterly Composite (Particulates)	SR-90 SR-89	C.S. & L.S.

G - Gaseous Grab Sample

C - Charcoal Filter Sample

P - Particulate Filter Sample

L.S. - Liquid Scintillation counting

C.S. - Chemical Separation

p.h.a. - Gamma spectrum pulse height analysis using Lithium Germanium detectors. All peaks are identified and quantified

G.F.P. - Gas Flow Proportional Counting

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EFFLUENT AND WASTE DISPOSAL - SUPPLEMENTAL INFORMATION
(continued)

5. Batch Releases

5.1 Liquid

a. Number of batch releases:	<u>46</u>
b. Total time period of batch releases:	<u>21553</u> MINUTES
c. Maximum time period for a batch release:	<u>1954</u> MINUTES
d. Average time period for a batch release:	<u>469</u> MINUTES
e. Minimum time period for a batch release:	<u>240</u> MINUTES
f. Average stream flow during periods of release of effluent into a flowing stream:	<u>333913</u> GPM

ALL LIQUID RELEASES ARE SUMMARIZED IN TABLES

5.2 Gaseous

a. Number of batch releases:	<u>20</u>
b. Total time period for batch releases:	<u>10374</u> MINUTES
c. Maximum time period for a batch release:	<u>1320</u> MINUTES
d. Average time period for batch releases:	<u>518</u> MINUTES
e. Minimum time period for a batch release:	<u>140</u> MINUTES

ALL GASEOUS WASTE RELEASES ARE SUMMARIZED IN TABLES

6. Unplanned Releases

6.1 Liquid

a. Number of releases:	<u>0</u>
b. Total activity released:	<u>0</u> CURIES

6.2 Gaseous

a. Number of releases:	<u>0</u>
b. Total activity released:	<u>0</u> CURIES

6.3 See attachments (if applicable) for:

- a. A description of the event and equipment involved.
- b. Cause(s) for the unplanned release.
- c. Actions taken to prevent a recurrence.
- d. Consequences of the unplanned release.

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TABLE 3.3
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

NUCLIDES RELEASED	UNIT	QUARTER #1	QUARTER #2
A. Fission and Activation Products			
1. Total Release (not including tritium, gases, alpha)	CI	1.79E-0	6.27E-1
2. Average diluted concentration during period	uCI/ml	7.42E-8	1.99E-7
3. Percent of Applicable Limit	Percent	17.9%	6.27%
B. Tritium			
1. Total Release	CI	2.62E+2	3.14E+1
2. Average diluted concentration during period	uCI/ml	1.08E-5	3.45E-4
C. Dissolved and Entrained Gases			
1. Total release	CI	5.58E+1	3.04E-2
2. Average diluted concentration during period	uCI/ml	2.31E-6	7.34E-9
D. Gross Alpha Radioactivity			
1. Total Release	CI	0.00E-0	0.00E-0
E. Volume of Waste Released (prior to dilution)			
	Liters	4.16E+6	1.16E+6
F. Volume of Dilution Water Used During Period			
	Liters	2.41E+10	3.14E+9

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TABLE 3.4
LIQUID EFFLUENTS

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		QUARTER #1	QUARTER #2	QUARTER #1	QUARTER #2
I-131	CI	0.00E0	0.00E0	2.12E-1	3.86E-3
I-132	CI	0.00E0	0.00E0	2.24E-4	0.00E-0
I-133	CI	0.00E0	0.00E0	1.97E-3	0.00E-0
NB-95	CI	0.00E0	0.00E0	3.51E-2	2.24E-3
CR-51	CI	0.00E0	0.00E0	2.14E-2	1.81E-2
MN-54	CI	0.00E0	0.00E0	2.05E-2	3.86E-3
CO-57	CI	0.00E0	0.00E0	3.66E-4	0.00E-0
CO-58	CI	0.00E0	0.00E0	1.27E-1	3.81E-2
FE-59	CI	0.00E0	0.00E0	4.81E-3	2.09E-4
CO-60	CI	0.00E0	0.00E0	1.63E-1	9.02E-2
ZN-65	CI	0.00E0	0.00E0	9.36E-4	0.00E-0
NB-97	CI	0.00E0	0.00E0	0.00E-0	1.79E-4
AG-110M	CI	0.00E0	0.00E0	1.14E-2	2.11E-4
SN-113	CI	0.00E0	0.00E0	1.12E-3	1.85E-4
SB-122	CI	0.00E0	0.00E0	6.18E-3	8.72E-3
SB-124	CI	0.00E0	0.00E0	2.97E-2	8.26E-3
W-187	CI	0.00E0	0.00E0	2.02E-4	8.26E-4
NP-239	CI	0.00E0	0.00E0	2.36E-4	4.97E-5
ZR-95	CI	0.00E0	0.00E0	3.32E-2	4.56E-3
MO-99	CI	0.00E0	0.00E0	8.17E-4	3.54E-4
RU-103	CI	0.00E0	0.00E0	4.63E-4	2.30E-5
CS-134	CI	0.00E0	0.00E0	5.07E-1	1.83E-1
CS-136	CI	0.00E0	0.00E0	4.57E-2	1.97E-3
CS-137	CI	0.00E0	0.00E0	5.31E-1	2.44E-1
BA-140	CI	0.00E0	0.00E0	5.14E-4	1.12E-4
CE-141	CI	0.00E0	0.00E0	1.10E-4	2.66E-6
LA-140	CI	0.00E0	0.00E0	1.02E-3	0.00E-0
ZR-97	CI	0.00E0	0.00E0	1.85E-3	1.41E-3

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TABLE 3.4
 LIQUID EFFLUENTS
 (continued)

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		QUARTER #1	QUARTER #2	QUARTER #1	QUARTER #2
SB-125	CI	0.00E0	0.00E0	2.35E-2	1.17E-2
CE-144	CI	0.00E0	0.00E0	3.04E-3	3.70E-3
SR-89	CI	0.00E0	0.00E0	7.54E-5	0.00E-0
SR-90	CI	0.00E0	0.00E0	1.14E-5	0.00E-0
Y-90	CI	0.00E0	0.00E0	1.14E-5	0.00E-0
Tc-99M	CI	0.00E0	0.00E0	9.74E-4	0.00E-0
Pr-144	CI	0.00E0	0.00E0	3.63E-3	7.94E-4
TOTAL FOR PERIOD ABOVE	CI	0.00E0	0.00E0	1.79E-0	6.27E-1

AR-41	CI	0.00E0	0.00E0	0.00E-0	0.00E-0
KR-85	CI	0.00E0	0.00E0	3.87E-2	3.00E-2
XE-131M	CI	0.00E0	0.00E0	8.83E-1	0.00E-0
XE-133	CI	0.00E0	0.00E0	5.32E+1	4.01E-4
XE-133M	CI	0.00E0	0.00E0	8.66E-1	0.00E-0
XE-135	CI	0.00E0	0.00E0	7.39E-1	0.00E-0
KR-85M	CI	0.00E0	0.00E0	5.02E-3	0.00E-0
XE-138	CI	0.00E0	0.00E0	3.32E-2	3.30E-6
TOTAL FOR PERIOD ABOVE	CI	0.00E0	0.00E0	5.58E+1	3.04E-2

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TABLE 3.6
 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

NUCLIDES RELEASED	UNIT	QUARTER # 1	QUARTER # 2
A. Fission and Activation Gases			
1. Total Release	CI	2.16E+4	0.00E-0
2. Average Release Rate for Period	uCI/sec	2.78E+3	0.00E-0
3. Percent of Tech. Spec. Limit	%	4.49%	0.00%
B. Iodines			
1. Total Iodine-131	CI	7.96E-2	8.81E-3
2. Average Release Rate for Period	uCI/sec	1.02E-2	1.12E-3
3. Percent of Tech. Spec. Limit	%	3.98%	0.44%
C. Particulates			
1. Particulates T-1/2 > 8 Days	CI	1.16E-1	8.81E-3
2. Average Release Rate for Period	uCI/sec	1.49E-2	1.12E-3
3. Percent of Tech. Spec. Limit	%	0.10%	0.0080%
4. Gross Alpha Radioactivity	CI	0.00E-0	7.59E-15
D. Tritium			
1. Total Release	CI	8.78E+1	1.33E+1
2. Average Release Rate for Period	uCI/sec	1.13E+1	1.71E-0

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TABLE 3.7
GASEOUS EFFLUENTS

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		QUARTER #1	QUARTER #2	QUARTER #1	QUARTER #2
1. FISSION GASES					
AR-41	CI	0.00E-0	0.00E-0	1.04E+1	0.00E-0
KR-85	CI	0.00E-0	0.00E-0	4.23E+1	0.00E-0
KR-85M	CI	7.18E+1	0.00E-0	1.46E+2	0.00E-0
KR-87	CI	1.19E+1	0.00E-0	1.52E+2	0.00E-0
KR-88	CI	4.23E-0	0.00E-0	1.94E+2	0.00E-0
XE-131M	CI	5.19E+1	0.00E-0	1.28E+2	0.00E-0
XE-133	CI	1.35E+4	0.00E-0	6.21E+3	0.00E-0
XE-133M	CI	1.37E+2	0.00E-0	5.18E+1	0.00E-0
XE-135	CI	3.13E+2	0.00E-0	1.14E+2	0.00E-0
XE-135M	CI	1.74E+2	0.00E-0	1.24E+2	0.00E-0
XE-138	CI	0.00E-0	0.00E-0	9.03E+1	0.00E-0
TOTAL FOR PERIOD ABOVE	CI	1.43E+4	0.00E-0	7.26E+3	0.00E-0

2. IODINES					
I-130	CI	3.18E-3	0.00E-0	0.00E-0	0.00E-0
I-131	CI	7.87E-2	8.81E-3	9.09E-4	0.00E-0
I-133	CI	3.34E-2	0.00E-0	4.38E-6	0.00E-0
I-135	CI	0.00E-0	0.00E-0	0.00E-0	0.00E-0
TOTAL FOR PERIOD ABOVE	CI	1.15E-1	8.81E-3	9.13E-4	0.00E-0

3. PARTICULATES					
Co-58	CI	0.00E-0	0.00E-0	1.54E-6	0.00E-0
Co-60	CI	0.00E-0	0.00E-0	2.37E-6	0.00E-0
SR-89	CI	0.00E-0	0.00E-0	N/A	N/A
SR-90	CI	0.00E-0	0.00E-0	N/A	N/A
Y-90	CI	0.00E-0	0.00E-0	N/A	N/A
	CI				
	CI				
	CI				
TOTAL FOR PERIOD ABOVE	CI	0.00E-0	0.00E-0	3.91E-6	0.00E-0

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 1 1968

STABILITY CLASS: A

ELEVATION 100 FT.

WIND DIRECTION	WIND SPEED (MPH) AT 100 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1.00	2.00	2.00	0.00	0.00	0.00	5.00
NNE	0.00	0.00	0.00	1.00	1.00	0.00	2.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	1.00	0.00	0.00	0.00	0.00	1.00
E	0.00	0.00	0.00	0.00	0.00	1.00	1.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	2.00	0.00	2.00	4.00
SSE	0.00	0.00	1.00	3.00	0.00	0.00	4.00
S	0.00	0.00	3.00	3.00	1.00	0.00	7.00
SSW	0.00	1.00	1.00	4.00	0.00	2.00	8.00
SW	0.58	0.00	2.00	0.00	0.00	2.00	4.58
WSW	0.00	0.00	1.97	3.42	0.00	1.30	6.69
W	0.00	1.00	0.00	0.00	0.00	1.00	2.00
WNW	1.00	1.00	0.00	0.00	0.00	0.00	2.00
NNW	1.00	2.75	1.00	3.00	0.00	0.00	6.75
TOT.	4.58	11.25	19.97	31.50	6.67	9.30	83.27

PERIODS OF CALM (HRS): 1.00
 HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 1 1983

STABILITY CLASS: B

ELEVATION 190 FT

WIND DIRECTION	WIND SPEED(MPH) AT 190 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	1.00	0.00	1.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	0.00	0.00	0.00	1.00	0.00	1.00

PERIODS OF CALM(HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 1 1989

STABILITY CLASS: C

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED (MPH) AT 100 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	1.00	0.00	0.00	1.00	0.00	2.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	2.00	2.00	0.00	0.00	0.00	4.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	1.00	1.33	0.00	0.00	2.33
TOT.	0.00	3.00	3.00	1.33	1.00	0.00	8.42

PERIODS OF CALM (HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF REPORT: QUARTER # 1 1983

STABILITY CLASS: D

ELEVATION: 170 FT.

WIND DIRECTION	WIND SPEED(MPH) AT 170 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	1.00	2.00	0.00	0.00	0.00	3.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.20	0.00	0.00	0.20
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	1.00	0.00	0.00	1.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	2.00	5.00	1.00	0.00	8.00
SSW	0.00	0.00	2.00	0.00	0.00	0.00	2.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	1.00	1.25	1.00	0.00	0.00	3.25
WSW	0.42	0.00	0.00	1.00	0.00	0.00	1.42
NW	1.00	0.00	0.00	0.00	0.00	0.00	1.00
NNW	1.00	0.00	0.00	1.00	0.00	0.00	2.00
TOT.	2.42	2.00	7.25	9.20	1.00	0.00	21.87

PERIODS OF CALM(HRS): 0.00
 HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

14

PERIOD OF REPORT: QUARTER # 1 1983

STABILITY CLASS: E

ELEVATION: 160 FT

WIND DIRECTION	WIND SPEED (MPH) AT 100 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	1.00	0.00	0.00	0.00	0.00	1.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	1.00	1.00	2.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	1.00	0.00	1.00	0.00	0.00	2.00
W	0.00	0.00	5.00	2.00	0.00	0.00	7.00
WNW	0.00	0.00	0.00	2.42	1.00	0.00	3.42
NW	0.00	0.00	3.38	2.05	0.00	0.00	5.43
NNW	0.00	2.00	2.00	1.00	0.00	0.00	5.00
TOT.	0.00	4.00	10.38	8.47	2.00	1.00	25.85

PERIODS OF CALM (HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF REPORT: QUARTER # 1 1988
 STABILITY CLASS: F
 ELEVATION 190 FT

WIND DIRECTION	WIND SPEED(MPH)AT 100 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PERIODS OF CALM(HRS): 0.00
 HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 1 1988

STABILITY CLASS: S

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED (MPH) AT 100 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	1.00	1.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	2.00	2.00	1.00	0.00	5.00
SSW	0.00	0.00	1.00	2.00	2.00	0.00	4.00
SW	0.00	0.00	0.00	1.00	0.00	0.00	1.00
WSW	0.00	0.00	0.00	0.00	0.00	1.00	1.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	1.00	0.00	0.00	0.00	0.00	1.00
WW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.92	2.00	0.00	2.92
TOT.	0.00	1.00	3.00	6.92	3.00	2.00	15.92

PERIODS OF CALM (HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 2 1983

STABILITY CLASS: A

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED(MPH) AT 190 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PERIODS OF CALM(HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 2 1983

STABILITY CLASS: B

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED(MPH) AT 190 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PERIODS OF CALM(HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 2 1983

STABILITY CLASS: C

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED(MPH) AT 190 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PERIODS OF CALM(HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 2 1983

STABILITY CLASS: D

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED(MPH) AT 190 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PERIODS OF CALM(HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 2 1983

STABILITY CLASS: E

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED(MPH) AT 190 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	1.00	3.58	0.00	0.00	0.00	4.58
E	0.00	0.00	3.00	7.00	0.00	0.00	10.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	1.00	6.58	7.00	0.00	0.00	14.58

PERIODS OF CALM(HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 2 1983

STABILITY CLASS: F

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED(MPH) AT 190 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PERIODS OF CALM(HRS): 0.00

HOURS OF MISSING DATA: 0.00

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF REPORT: QUARTER # 2 1983

STABILITY CLASS: G

ELEVATION: 190 FT.

WIND DIRECTION	WIND SPEED(MPH) AT 190 FT LEVEL						TOTAL
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PERIODS OF CALM(HRS): 0.00

HOURS OF MISSING DATA: 0.00

TABLE 3

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

January 1, 1983 - June 30, 1983

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

1. Type of waste	Unit	6-month Period	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m ³ Ci	1.71 E 1 2.35 E 2	2.00 E 1
b. Dry compressible waste, contaminated equip, etc.	m ³ Ci	1.95 E 2 7.55 E 0	2.00 E 1
c. Irradiated components, control rods, etc.	m ³ Ci	E E	E
d. Other (describe) Contaminated dirt	m ³ Ci	1.03 E 2 0.07 E 0	2.00 E 1

2. Estimate of major nuclide composition (by type of waste)

a. Co-60	%	4.6 E 1
Co-58	%	1.2 E 1
Cs-137	%	2.4 E 1
Cs-134	%	1.7 E 1
Mn-54	%	1.0 E 0
b. Co-60	%	5.7 E 1
Cs-137	%	1.3 E 1
Cs-134	%	6.0 E 0
Co-58	%	1.9 E 1
Mn-54	%	3.0 E 0
Nh-95	%	2.0 E 0
d. Co-60	%	1.0 E 2

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
10	Sole Use Truck	Barnwell, S.C.
4	Sole Use Truck	Richland, WA.

B. IRRADIATED FUEL SHIPMENTS (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
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August 26, 1983
L-83-462

Mr. James P. O'Reilly
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street N.W., Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: St. Lucie Unit 1
Docket No. 50-335
Semi-Annual Radioactive
Effluent Release Report

Please find attached the subject report for the period of January 1, 1983, through June 30, 1983, as required by Technical Specification 5.6.1.c of Appendix B of DRR-67.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Robert E. Uhrig".

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/PLP/mpc

Attachment

cc: Harold F. Reis, Esquire

DESIGNATED ORIGINAL

Certified By

A handwritten signature in cursive script, appearing to read "M. Reis".

IE25