INSTALLATION= ST. LUCIE

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1980

SOLID WASTES

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
26	TRUCK	BARNWELL S.C.

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
A			
CO-58	%	1.00E+01	3.00E+01
CO-60	%		5.20E+01
CS-134	%	2.90E+01	
CS-137	%	6.10E+01	1.80E+01
B			
CO-58	%	2.70E+01	1.10E+01
CO-60	%	5.10E+01	6.30E+01
CS-137	%	2.20E+01	2.60E+01

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS,ETC.	M3	2.78E+01.
	CI	7.39E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT,ETC.	M3	2.86E+02 → 2.84
	CI	2.10E+02
C. IRRADIATED COMPONENTS, CONTROL RODS,ETC.	M3	
	CI	0.
D. OTHER	M3	↓ 7.47E00
	CI	0.

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION ST. LUCIE LOCATION 8 MI S FT. PIERCE. FL

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT FOR YEAR 1980
SUPPLEMENTAL INFORMATION

UNIT NUMBER 1 LICENSEE FLORIDA POWER & LIGHT
TYPE PWR LICENSED POWER (MWT) 2560.0
DOCKET NO. 50-335 INITIAL CRITICALITY 04/22/76
COOLING WATER SOURCE ATLANTIC OCEAN

MAXIMUM PERMISSIBLE CONCENTRATIONS (MICROCURIES/ML)

MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

FISSION AND ACTIVATION GASES
PRINCIPAL GAMMA EMITTERS ARE ANALYZED BY GASEOUS GRAB SAMPLES USING GAMMA SPECTRUM PULSE HEIGHT ANALYSES USING LITHIUM-GERMANIUM DETECTORS. ALL PEAKS ARE IDENTIFIED AND QUANTIFIED. TRITIUM IS ANALYZED USING LIQUID SCINTILLATION COUNTING.

IODINES
IODINES ARE ANALYZED USING CHARCOAL FILTER SAMPLES BY GAMMA SPECTRUM PULSE HEIGHT ANALYSES USING LITHIUM-GERMANIUM DETECTORS. ALL PEAKS ARE IDENTIFIED AND QUANTIFIED.

PARTICULATES
PARTICULATES ARE ANALYZED BY PARTICULATE FILTER SAMPLES USING GAMMA SPECTRUM PULSE HEIGHT ANALYSES USING LITHIUM-GERMANIUM DETECTORS. ALL PEAKS ARE IDENTIFIED AND QUANTIFIED. SR-90 AND 89 ARE ANALYZED BY CHEMICAL SEPARATION AND LIQUID SCINTILLATION COUNTING. GROSS ALPHA PARTICULATES ARE ANALYZED BY PARTICULATE FILTER SAMPLES USING GAS FLOW PROPORTIONAL COUNTING.

LIQUID EFFLUENTS
PRINCIPAL GAMMA EMITTERS ARE ANALYZED USING GAMMA SPECTRUM PULSE HEIGHT ANALYSES USING LITHIUM-GERMANIUM DETECTORS. TRITIUM IS ANALYZED USING LIQUID SCINTILLATION COUNTING. GROSS ALPHA IS ANALYZED USING GAS FLOW PROPORTIONAL COUNTING. SR-90 AND 89 ARE ANALYZED USING CHEMICAL SEPARATION AND LIQUID SCINTILLATION COUNTING.

INSTALLATION ST. LUCIE LOCATION 8 MI S FT. PIERCE, FL

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT FOR YEAR 1980

SUBOLE TOTAL INFORMATION

AVERAGE ENERGY (MEV/ISINTEGRATION)

	BETA		GAMMA	
	QUARTER 1	QUARTER 2	QUARTER 1	QUARTER 2
		N/A		N/A

BATCH RELEASES	QUARTER 1	QUARTER 2
A. LIQUID		
1. NUMBER OF BATCH RELEASES=		23
2. TOTAL TIME PERIOD FOR BATCH RELEASE(MIN)=		1.27E 04
3. MAXIMUM TIME PERIOD FOR A BATCH RELEASE(MIN)=		9.04E 02
4. AVERAGE TIME PERIOD FOR BATCH RELEASES(MIN)=		5.75E 02
5. MINIMUM TIME PERIOD FOR A BATCH RELEASE(MIN)=		2.69E 02
6. AVERAGE STREAM FLOW DURING PERIODS OF RELEASE OF EFFLUENT INTO A FLOWING STREAM(LTS/MIN)=		9.56E 05
B. GASEOUS		
NUMBER OF BATCH RELEASES=		49
2. TOTAL TIME PERIOD FOR BATCH RELEASES(MIN)=		1.09E 04
3. MAXIMUM TIME PERIOD FOR A BATCH RELEASE(MIN)=		6.00E 02
4. AVERAGE TIME PERIOD FOR BATCH RELEASES(MIN)=		2.22E 02
5. MINIMUM PERIOD FOR A BATCH RELEASE(MIN)=		2.40E 01

ABNORMAL RELEASES	
A. LIQUID	
NUMBER OF RELEASES	NONE
2. TOTAL ACTIVITY RELEASED (CURIES)	
B. GASEOUS	
1. NUMBER OF RELEASES	NONE
2. TOTAL ACTIVITY RELEASED (CURIES)	

This is total for Quarter 1 & Quarter 2. As presented it could be mistaken for all ~~beta~~ Quarter 2

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INSTALLATION ST. LUCIE LOCATION 8 MI S FT. PIERCE, FL

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT FOR YEAR 1980

SUPPLEMENTAL INFORMATION

AVERAGE ENERGY (MEV/DISINTEGRATION)

	BETA		GAMMA	
	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
		N/A		N/A

BATCH RELEASES	QUARTER 3	QUARTER 4
A. LIQUID		
1. NUMBER OF BATCH RELEASES		14
2. TOTAL TIME PERIOD FOR BATCH RELEASE(MIN)-		8.83E 03
3. MAXIMUM TIME PERIOD FOR A BATCH RELEASE(MIN)-		1.23E 03
4. AVERAGE TIME PERIOD FOR BATCH RELEASES(MIN)-		6.31E 02
5. MINIMUM TIME PERIOD FOR A BATCH RELEASE(MIN)-		2.93E 02
6. AVERAGE STREAM FLOW DURING PERIODS OF RELEASE OF EFFLUENT INTO A FLOWING STREAM(LTS/MIN)-		1.96E 06
B. GASEOUS		
NUMBER OF BATCH RELEASES-	1.93	28
2. TOTAL TIME PERIOD FOR BATCH RELEASES(MIN)-		1.66E 04
3. MAXIMUM TIME PERIOD FOR A BATCH RELEASE(MIN)-		1.09E 03
4. AVERAGE TIME PERIOD FOR BATCH RELEASES(MIN)-		5.94E 02
5. MINIMUM PERIOD FOR A BATCH RELEASE(MIN)-		2.20E 02

ABNORMAL RELEASES	
A. LIQUID	
NUMBER OF RELEASES	NONE
2. TOTAL ACTIVITY RELEASED (CURIES)	
B. GASEOUS	
1. NUMBER OF RELEASES	NONE
2. TOTAL ACTIVITY RELEASED (CURIES)	

See Note on previous page

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EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1980
(JANUARY - JUNE)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL)

1. TYPE OF WASTE	UNIT	6-MONTH PERIOD	EST. TOT ERROR %
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	1.74 4.91E 00	
	CI	2.49E 02	2.00E 01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	1.76E 02	
	CI	2.05E 02	2.00E 01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	3.77E00	
	CI	N/A	
D. OTHER (DESCRIBE)	M3		
	CI		

2. ESTIMATE OF MAJOR NUCLIDE COMPOSITION (BY TYPE OF WASTE)

A			
CS-137	%	6.10E 01	
CS-134	%	2.90E 01	
CO-58	%	1.00E 01	
B			
CO-60	%	5.10E 01	
CO-58	%	2.70E 01	
CS-137	%	2.20E 01	

3. SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
11	TRUCK	BARNWELL S.C.

B. IRRADIATED FUEL SHIPMENTS (DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0		

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INSTALLATION=ST. LUCIE

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1980

LIQUID EFFLUENTS

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE QUARTER 1	CONTINUOUS MODE QUARTER 2	BATCH MODE QUARTER 1	BATCH MODE QUARTER 2
		NONE	NONE		
NA-24	CI			1.15E-03	0.00E 00
CR-51	CI			2.37E-02	7.03E-02
MN-54	CI			2.90E-02	9.04E-03
MN-56	CI			2.19E-03	0.00E 00
CO-57	CI			1.08E-03	3.93E-04
CO-58	CI			1.11E-01	1.36E-01
FE-59	CI			1.06E-03	2.59E-02
CO-60	CI			4.59E-01	1.78E-01
NI-65	CI			6.74E-04	0.00E 00
ZN-65	CI			4.27E-03	6.65E-04
BR-82	CI			3.05E-04	2.45E-04
SR-89	CI			2.49E-04	3.06E-05
SR-90	CI			2.54E-05	6.03E-06
ZR-95	CI			3.33E-02	3.17E-02
ZR-97	CI			2.65E-03	1.04E-03
MO-99	CI			1.45E-04	0.00E 00
RU-103	CI			6.45E-05	2.10E-05
AG-110M	CI			2.11E-03	3.19E-03
SN-113	CI			1.59E-03	5.33E-04
SB-122	CI			4.80E-03	5.54E-04
SB-124	CI			5.20E-03	1.14E-02
SB-125	CI			8.29E-03	7.97E-03
I-131	CI			5.94E-03	9.45E-04
I-132	CI			3.36E-05	0.00E 00
I-133	CI			4.28E-04	8.40E-05
CS-134	CI			2.05E-02	6.94E-03
I-134	CI			2.71E-05	0.00E 00
I-135	CI			1.60E-04	5.83E-05
CS-136	CI			3.66E-04	5.37E-04
CS-137	CI			3.78E-02	1.12E-02
BA-140	CI			9.02E-04	7.01E-04
CE-141	CI			3.60E-05	2.10E-05
CE-144	CI			2.47E-03	3.04E-03
W-187	CI			1.95E-03	1.56E-03
NP-239	CI			1.14E-03	1.03E-04
UNIDENTIFIED	CI			0.00E 00	0.00E 00
KR-85	CI			8.77E-04	4.01E-02
XE-131M	CI			1.49E-03	7.59E-03
XE-133	CI			1.41E-01	9.44E-02
XE-133M	CI			4.85E-04	0.00E 00
XE-135	CI			1.75E-04	0.00E 00

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EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1980

LIQUID EFFLUENTS

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE QUARTER 1	CONTINUOUS MODE QUARTER 2	BATCH MODE QUARTER 1	BATCH MODE QUARTER 2
		NONE	NONE		
NA-24	CI			1.15E-03	0.00E 00
CR-51	CI			2.37E-02	7.08E-02
MN-54	CI			2.90E-02	9.04E-03
MN-56	CI			2.14E-03	0.00E 00
CO-57	CI			1.08E-03	3.93E-04
CO-58	CI			1.11E-01	1.36E-01
FE-59	CI			1.06E-03	2.59E-02
CO-60	CI			4.59E-01	1.78E-01
NI-65	CI			6.74E-04	0.00E 00
ZN-65	CI			4.27E-03	6.45E-04
BR-82	CI			3.05E-04	2.45E-04
SR-89	CI			2.49E-04	3.06E-05
SR-90	CI			2.54E-05	6.03E-06
ZR-95	CI			3.33E-02	3.17E-02
ZR-97	CI			2.65E-03	1.04E-03
MO-99	CI			1.45E-04	0.00E 00
RU-103	CI			6.45E-05	2.10E-05
AG-110M	CI			2.11E-03	3.19E-03
SN-113	CI			1.59E-03	6.83E-04
SB-122	CI			4.80E-03	6.54E-04
SB-124	CI			5.20E-03	1.14E-02
SB-125	CI			8.22E-03	7.27E-03
I-131	CI			5.93E-03	9.45E-04
I-132	CI			3.36E-05	0.00E 00
I-133	CI			4.28E-04	8.40E-05
CS-134	CI			2.06E-02	6.94E-03
I-134	CI			2.71E-05	0.00E 00
I-135	CI			1.66E-04	5.83E-05
CS-136	CI			3.64E-04	5.37E-04
CS-137	CI			3.78E-02	1.12E-02
BA-140	CI			9.02E-04	7.91E-04
CE-141	CI			3.60E-05	2.10E-05
CE-144	CI			2.47E-03	3.04E-03
W-187	CI			1.95E-03	1.56E-03
NP-239	CI			1.18E-03	1.03E-04
UNIDENTIFIED	CI			0.00E 00	0.00E 00
KR-85	CI			8.77E-04	4.01E-02
XE-131M	CI			1.49E-03	7.59E-03
XE-133	CI			1.41E-01	9.44E-02
XE-133M	CI			4.85E-04	0.00E 00
XE-135	CI			1.75E-04	0.00E 00

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