

Introduction

All liquid and airborne discharges to the environment during this reporting period were analyzed in accordance with Technical Specification requirements. The minimum frequency of analysis as required by Safety Guide 21 has been met or exceeded.

Liquid Releases

Aliquots of representative pre-release samples were either isotopically analyzed for gamma emitting isotopes on a multichannel analyzer, or evaporated and analyzed for gross beta-gamma activity in a  $2\pi$  gas flow proportional counter. The efficiency of the gas flow proportional counter is adjusted so that the activity determined by gross beta-gamma analysis approximates the isotopic activities determined by gamma spectrum analysis and selected beta determinations, exclusive of tritium and dissolved gases.

The above procedure was followed for all releases from the waste disposal system and for secondary system batch releases. Frequent periodic sampling and analysis were used to conservatively estimate the quantity of radioactivity released via the steam generator blowdown system.

The following comments will aid in the interpretation and evaluation of the liquid release data presented in Table I, pages 1 through 6:

1. The reported values in Table I, page 1, include in their computation the quantity of radioactivity released from both the waste disposal system and the secondary system. The secondary system releases occurred when contaminated water was blown down from the steam generators during primary to secondary leakage conditions, or when the generators were drained for repair or refueling, or during lancing of the generators.

2. The reported values in Table I, pages 2 and 3 are the total quantities of radioactivity for individual nuclides released from the waste disposal system and the secondary system together. The values in Table I, page 4 are for the waste disposal system only and page 5 is for the secondary system only. During primary to secondary leakage, release of several short-lived nuclides occurred from the secondary system. These short-lived nuclides are not generally detected in batch releases from the waste disposal system due to the long holdup time of processed water.
3. Only those isotopes that were detected in the secondary system releases were reported. All non-detectable isotopes are listed as (—):
4. Weekly and monthly composite samples for the waste disposal system were prepared to give a proportional weight to each liquid release made during the designated period of accumulation. The composites were analyzed for gamma emitting isotopes on a multichannel analyzer attached to a high resolution Ge(Li) detector, and for Sr-89 and Sr-90, using a chemical separation and subsequent beta determination with a  $2\pi$  gas flow proportional counter. Tritium was determined by use of liquid scintillation techniques and gross alpha radioactivity was determined by use of a  $2\pi$  gas flow proportional counter. All concentrations for radioactivity determined from analysis of a composite were multiplied by the total represented volume of the liquid waste released to determine the total quantity of each isotope and of gross alpha activity released during the compositing period.

5. At least one representative batch of liquid effluent from the waste disposal system was analyzed monthly for dissolved fission and activation gases by use of gamma spectrum analysis. The resulting isotope concentrations were multiplied by the total volume released for the month in order to estimate the total dissolved gases released. If more than one batch of effluent was analyzed, the concentrations were weighted in an appropriate manner. The results are totaled on a monthly basis in Table I, page 6. Dissolved gases from secondary system releases were determined from the samples of the individual releases. Isotopic concentrations were multiplied by the volume released to determine the quantity of radiogas nuclides released.
6. Representative samples of secondary system batch releases were analyzed individually for gamma emitting isotopes and by analysis of a representative composite for tritium, gross alpha and selected beta emitters.
7. The applicable limit for release of radioactive material in liquid waste is five curies per quarter excluding tritium and dissolved gases.
8. The following notes have been added to help explain some of the results in Table I which have been superscripted with a lower case letter:

SuperscriptNotes

a

The Q/MPC for this release was 0.21.

b

The Q/MPC for this release was 0.077.

c

No primary to secondary leakage was occurring; therefore, most short-lived isotopes were not present.

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Table I Report of Radioactive Effluents: Liquid

Page 1

Liquid Releases	January	February	March	April	May	June
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A. Gross Radioactivity ( $\beta$ - $\gamma$ )

1. Total Release (mCi)	1.07 E+03	1.66 E+03	4.62 E+01	3.01 E+01	3.39 E+01	2.23 E+01
2. Avg Concentration During Releases ( $\mu$ Ci/ml)	7.1 E-09	1.0 E-08	1.8 E-09	8.3 E-10	6.5 E-10	5.6 E-10
3. Avg Concentration for Month ( $\mu$ Ci/ml)	5.8 E-09	7.4 E-09	2.2 E-10	8.9 E-11	1.3 E-10	8.3 E-11
4. Max Concentration Released ( $\mu$ Ci/ml)	1.1 E-07 <sup>a</sup>	4.9 E-08 <sup>b</sup>	3.8 E-09	3.2 E-09	4.5 E-09	3.2 E-09
5. Percent of Technical Specification Limit for Total Activity Released (%)	5.55 E+01			1.73 E+00		

## B. Tritium

1. Total Release (Ci)	6.19 E+01	8.61 E+01	4.42 E+01	1.56 E+02	9.08 E+01	1.16 E+02
2. Avg Concentration During Releases ( $\mu$ Ci/ml)	4.1 E-07	5.3 E-07	1.7 E-06	4.3 E-06	1.7 E-06	2.9 E-06
3. Avg Concentration for Month ( $\mu$ Ci/ml)	3.3 E-07	3.9 E-07	2.1 E-07	4.6 E-07	3.4 E-07	4.3 E-07

## C. Dissolved Noble Gas

1. Total Release (mCi)	6.02 E+00	4.10 E+01	3.27 E+00	3.71 E+02	3.25 E+02	7.43 E+00
2. Avg Concentration During Releases ( $\mu$ Ci/ml)	4.0 E-11	2.5 E-10	1.3 E-10	1.9 E-08	6.3 E-09	1.9 E-10
3. Avg Concentration for Month ( $\mu$ Ci/ml)	3.2 E-11	1.3 E-10	1.5 E-11	1.1 E-09	1.2 E-09	2.8 E-11

## D. Gross Alpha Radioactivity

1. Total Release (mCi)	1.49 E-02	<1.2 E-08	<1.1 E-08	<1.7 E-08	<2.2 E-08	<1.0 E-08
2. Avg Concentration During Releases ( $\mu$ Ci/ml)	9.9 E-14	<7.4 E-20	<4.3 E-19	<4.7 E-19	<4.2 E-19	<2.5 E-19
3. Avg Concentration for Month ( $\mu$ Ci/ml)	8.0 E-14	<5.4 E-20	<5.2 E-20	<5.0 E-20	<8.3 E-20	<3.7 E-20

## E. Volumes

1. Vol of Liquid Waste to Discharge (Liters)	1.21 E+07	7.84 E+06	1.45 E+06	1.57 E+06	2.25 E+06	1.54 E+06
2. Vol of Dilution Water During Rel (Liters)	1.50 E+11	1.62 E+11	2.57 E+10	3.64 E+10	5.19 E+10	3.97 E+10
3. Vol of Dilution Water for Month (Liters)	1.86 E+11	2.23 E+11	2.11 E+11	3.39 E+11	2.66 E+11	2.70 E+11

NOTE: All concentrations are in units of  $\mu$ Ci/ml unless otherwise specified.

1978		Table I Report of Radioactive Effluents: Liquid - Total					Page 2
Isotope	Unit	January	February	March <sup>c</sup>	April <sup>c</sup>	May <sup>c</sup>	June <sup>c</sup>
Ag-110m	mCi	3.16 E-01	1.11 E+00	2.65 E-01	--	1.91 E-01	3.55 E-01
Ba-140	mCi	(<3.6 E-07)	7.95 E-01	(<3.2 E-07)	(<2.1 E-07)	(<2.7 E-07)	(<4.1 E-07)
Co-58	mCi	4.19 E+00	3.07 E+01	5.14 E+00	1.66 E+00	4.50 E+00	1.81 E+00
Co-60	mCi	9.32 E+00	1.21 E+01	2.61 E+00	1.33 E+00	8.90 E+00	6.51 E+00
Cr-51	mCi	--	2.81 E+00	1.59 E+00	--	1.03 E+00	--
Cs-134	mCi	1.43 E+01	3.78 E+01	1.47 E+00	3.42 E-02	1.43 E-01	--
Cs-136	mCi	3.13 E+00	--	--	--	--	--
Cs-137	mCi	1.73 E+01	7.73 E+01	3.19 E+00	2.30 E-01	5.14 E-01	3.41 E-01
Cs-138	mCi	4.49 E+01	9.13 E+01	--	--	--	--
F-18	mCi	1.37 E+02	3.27 E+02	--	--	--	--
Fe-59	mCi	5.19 E-02	--	2.26 E-01	--	--	--
I-131	mCi	3.39 E+02	2.47 E+02	8.61 E+00	8.77 E+00	1.78 E+00	1.05 E-01
I-132	mCi	6.66 E+01	1.22 E+02	--	--	--	--
I-133	mCi	2.63 E+02	3.19 E+02	--	--	--	--
I-134	mCi	2.33 E+01	5.36 E+01	--	--	--	--
I-135	mCi	1.00 E+02	1.85 E+02	--	--	--	--
La-140	mCi	(<2.1 E-08)	(<1.8 E-08)	(<1.4 E-08)	(<1.6 E-08)	(<1.1 E-08)	(<1.3 E-08)
Mn-54	mCi	3.91 E-01	4.4 E+00	1.65 E-01	4.6 E-02	5.26 E-01	2.6 E-01
Na-24	mCi	3.47 E+01	1.02 E+02	--	--	--	--
Nb-95	mCi	1.43 E-01	8.99 E-01	2.70 E-01	--	3.76 E-01	6.36 E-02
Ru-103	mCi	--	--	7.1 E-02	--	--	--
Sb-124	mCi	1.7 E+00	2.77 E+00	8.26 E-01	4.95 E-01	4.82 E-01	2.29 E-01
Sb-125	mCi	1.14 E+00	2.84 E+00	1.37 E+00	7.05 E-01	9.30 E-01	6.77 E-01
Sr-89	mCi	4.1 E+00	1.96 E+00	1.9 E-01	1.3 E-02	7.4 E-02	9.3 E-02

<sup>c</sup>TE: Numbers in parenthesis represent maximum sensitivity in  $\mu\text{Ci/ml}$ .

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Table I Report of Radioactive Effluents: Liquid - Total

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Isotope	Unit	January	February	March <sup>c</sup>	April <sup>c</sup>	May <sup>c</sup>	June <sup>c</sup>
Sr-90	mCi	(<3.1 E-09)	(<3.1 E-09)	(<3.1 E-09)	(<3.0 E-09)	2.5 E-02	(<3.4 E-09)
Zr-95	mCi	6.54 E-01	3.26 E-01	--	--	--	--
Unidentified	mCi	5.84 E+00.	3.33 E+01	2.02 E+01	1.68 E+01	1.44 E+01	1.19 E+01
Total	mCi	1.07 E+03	1.66 E+03	4.62 E+01	3.01 E+01	3.39 E+01	2.23 E+01

NOTE: Numbers in parenthesis represent maximum sensitivity in  $\mu\text{Ci/ml}$ .

1978		Table I Report of Radioactive Effluents: Liquid - Waste Disposal System					Page 4
Isotope	Unit	January	February	March	April	May	June
Ag-110m	mCi	3.16 E-01	1.11 E+00	2.65 E-01	(<3.4 E-08)	1.91 E-01	3.55 E-01
Ba-140	mCi	(<3.6 E-07)	7.95 E-01	(<3.2 E-07)	(<2.1 E-07)	(<2.7 E-07)	(<4.1 E-07)
Co-58	mCi	3.67 E+00	2.83 E+01	3.96 E+00	1.66 E+00	4.20 E+00	1.74 E+00
Co-60	mCi	3.82 E+00	9.3 E+00	2.08 E+00	1.33 E+00	6.25 E+00	5.86 E+00
Cr-51	mCi	(<2.8 E-07)	2.81 E+00	1.59 E+00	(<1.8 E-07)	1.03 E+00	(<2.8 E-07)
Cs-134	mCi	1.02 E+00	1.67 E+01	2.29 E-01	3.42 E-02	1.43 E-01	(<5.3 E-08)
Cs-137	mCi	2.02 E+00	4.48 E+01	6.7 E-01	2.3 E-01	5.14 E-01	3.41 E-01
Fe-59	mCi	5.19 E-02	(<9.2 E-08)	2.26 E-01	(<4.1 E-08)	(<5.4 E-08)	(<9.6 E-08)
I-131	mCi	1.67 E+01	2.13 E+01	4.4 E+00	8.77 E+00	1.78 E+00	1.05 E-01
La-140	mCi	(<2.1 E-08)	(<1.8 E-08)	(<1.4 E-08)	(<1.6 E-08)	(<1.1 E-08)	(<1.3 E-08)
Mn-54	mCi	3.91 E-01	7.04 E-01	1.65 E-01	4.6 E-02	5.26 E-01	2.47 E-01
Nb-95	mCi	1.43 E-01	8.99 E-01	2.7 E-01	(<2.3 E-08)	3.76 E-01	6.36 E-02
Ru-103	mCi	(<3.5 E-08)	(<7.3 E-08)	7.1 E-02	(<1.9 E-08)	(<2.8 E-08)	(<3.7 E-08)
Sb-124	mCi	1.7 E+00	2.77 E+00	8.26 E-01	4.95 E-01	4.82 E-01	2.29 E-01
Sb-125	mCi	1.14 E+00	2.84 E+00	1.37 E+00	7.05 E-01	9.30 E-01	6.77 E-01
Sr-89	mCi	3.51 E-02	(<2.9 E-09)	9.8 E-02	1.3 E-02	7.4 E-02	9.3 E-02
Sr-90	mCi	(<3.0 E-09)	(<2.9 E-09)	(<3.1 E-09)	(<3.0 E-09)	2.5 E-02	(<3.4 E-09)
Zr-95	mCi	(<6.2 E-08)	3.26 E-01	(<5.7 E-08)	(<3.4 E-08)	(<5.7 E-08)	(<8.2 E-08)
Total	mCi	3.1 E+01	1.33 E+02	1.62 E+01	1.33 E+01	1.65 E+01	9.71 E+00

NOTE: Numbers in parenthesis represent maximum sensitivity in  $\mu\text{Ci/ml}$ .

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Table I Report of Radioactive Effluents: Liquid - Secondary System

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Isotope	Unit	January	February	March	April	May	June
Co-58	mCi	5.2 E-01	2.42 E+00	1.18 E+00	--	3.0 E-01	6.88 E-02
Co-60	mCi	5.50 E+00	2.79 E+00	5.26 E-01	--	2.65 E+00	6.5 E-01
Cs-134	mCi	1.33 E+01	2.11 E+01	1.24 E+00	--	--	--
Cs-136	mCi	3.13 E+00	--	--	--	--	--
Cs-137	mCi	1.53 E+01	3.25 E+01	2.52 E+00	--	--	--
Cs-138	mCi	4.49 E+01	9.13 E+01	--	--	--	--
F-18	mCi	1.37 E+02	3.27 E+02	--	--	--	--
I-131	mCi	3.22 E+02	2.26 E+02	4.21 E+00	--	--	--
I-132	mCi	6.66 E+01	1.22 E+02	--	--	--	--
I-133	mCi	2.63 E+02	3.19 E+02	--	--	--	--
I-134	mCi	2.33 E+01	5.36 E+01	--	--	--	--
I-135	mCi	1.00 E+02	1.85 E+02	--	--	--	--
Mn-54	mCi	--	3.7 E+00	--	--	--	1.21 E-02
Na-24	mCi	3.47 E+01	1.02 E+02	--	--	--	--
Sr-89	mCi	4.06 E+00	1.96 E+00	9.5 E-02	--	--	--
Sr-90	mCi	(<3.1 E-09)	(<3.1 E-09)	(<3.1 E-09)	--	--	--
Zr-95	mCi	6.54 E-01	--	--	--	--	--
Unidentified	mCi	5.84 E+00	3.33 E+01	2.02 E+01	1.68 E+01	1.44 E+01	1.19 E+01
Total	mCi	1.04 E+03	1.52 E+03	3.00 E+01	1.68 E+01	1.74 E+01	1.26 E+01

NOTE: Numbers in parenthesis represent maximum sensitivity in  $\mu\text{Ci/ml}$ .



1978		Table 1 Report of Radioactive Effluents: Liquid - Dissolved Gas					Page 6
Total		January	February	March	April	May	June
Kr-85m	mCi	(<2.1 E-08)	(<3.0 E-08)	(<1.8 E-08)	(<2.9 E-08)	1.04 E+00	(<1.6 E-08)
Xe-133	mCi	3.88 E+00	3.93 E+01	2.66 E+00	3.61 E+02	2.70 E+02	7.14 E+00
Xe-133m	mCi	(<2.5 E-07)	(<2.5 E-07)	(<1.7 E-07)	6.12 E+00	8.76 E+00	(<1.6 E-07)
Xe-135	mCi	2.14 E+00	1.71 E+00	6.05 E-01	3.45 E+00	4.5 E+01	2.89 E-01

Waste Disposal System							
Kr-85m	mCi	(<2.1 E-08)	(<3.0 E-08)	(<1.8 E-08)	(<2.9 E-08)	1.04 E+00	(<1.6 E-08)
Xe-133	mCi	4.46 E-01	3.36 E+01	2.66 E+00	3.61 E+02	2.70 E+02	7.14 E+00
Xe-133m	mCi	(<2.5 E-07)	(<2.5 E-07)	(<1.7 E-07)	6.12 E+00	8.76 E+00	(<1.6 E-07)
Xe-135	mCi	(<2.8 E-08)	8.16 E-01	6.05 E-01	3.45 E+00	4.5 E+01	2.89 E-01

Secondary System							
Xe-133	mCi	3.43 E+00	5.71 E+00	--	--	--	--
Xe-135	mCi	2.14 E+00	8.95 E-01	--	--	--	--

NOTE: Numbers in parenthesis represent maximum sensitivity in  $\mu\text{Ci/ml}$ .

Airborne Releases

Airborne releases to the atmosphere occurred from release of gas decay tanks, via the instrument bleedline, containment purges, and from the secondary system during conditions of primary to secondary leakage. The techniques employed in determining the radioactivity in airborne releases are:

- a) Gamma spectrum analysis for fission and activation gases.
- b) Removal of particulate material by filtration and subsequent gamma-spectrum analysis, Sr-89-90 determination, gross alpha analysis, and gross beta-gamma analysis.
- c) Absorption of halogen radionuclides on a charcoal filter and subsequent gamma-spectrum analysis, and
- d) Condensation of water vapor in a gas sample followed by analysis for tritium using liquid scintillation techniques.

All sporadic gas releases from the plant which were not accounted for by the above methods were conservatively estimated as curies of Xe-133 equivalent by use of the plant vent process monitor recorder chart.

The maximum rated capacity for the hogging jets and the maximum measured flowrate for the condenser air ejectors, and an estimate of the rate of exhaust from the atmospheric dumps were used to conservatively estimate the airborne releases from the secondary system whenever applicable.

The following comments will aid in the interpretation and evaluation of the airborne release data presented in Table II.

1. Calculation of total radioactivity of noble gases, I-131, and particulates is based upon detectable radionuclides only.
2. The applicable limit for release of total radioactive materials in gaseous waste is 0.012 Ci/sec when averaged over the calendar quarter.

The percent of the applicable limit for total gaseous release was computed as follows:

$$\% \text{ of Limit} = \frac{\text{Total curies released in gaseous waste during quarter} \times 100\%}{(.012 \text{ Ci/sec}) (\text{seconds in quarter})}$$

3. The applicable limit for the release of I-131 and particulate radio-nuclides with half-lives greater than eight days in airborne waste is:

$$\sum \frac{Q_i}{\text{MPC}_i} \leq 10,000 \frac{\text{m}^3}{\text{sec}}, \text{ where } Q_i = \text{release rate of } i^{\text{th}} \text{ nuclide, Ci/sec}$$

and  $\text{MPC}_i$  = maximum permissible concentration of the  $i^{\text{th}}$  nuclide.

The release rate,  $Q_i$ , was determined by dividing the total activity released in Ci, for the  $i^{\text{th}}$  nuclide ( $t_{1/2} > 8\text{d}$ ), during the calendar quarter by the seconds in the quarter.

$\text{MPC}_i$  values were obtained from Appendix B, Table II, Column 1, 10 CFR 20. The MPC chosen was the most conservative value of either the soluble or insoluble MPC for each isotope.

The percent of the applicable limit was determined as follows:

$$\% \text{ of Limit} = \frac{\sum \frac{Q_i}{\text{MPC}_i} \times 100\%}{10,000 \text{ m}^3/\text{sec}}$$

4. The maximum gaseous release rate for each month is listed in Table II, page 1, under section A, line 3. The applicable limit for maximum allowable release rate is  $6.7 \text{ E}+04 \text{ } \mu\text{Ci/sec}$ .

5. All values reported in Table II, pages 2 and 3, include the particulate, gaseous, and/or halogen activity released from the containments during purging, auxiliary building (leakage from pumps, valves, etc), the gas waste disposal system and the secondary system during conditions of primary to secondary system leakage. If a minimum detectable activity value was not calculated for an isotope, it will be listed as (--).

1978	Table II Report of Radioactive Effluents: Airborne					Page 1
	January	February	March	April	May	June

A. Fission and Activation Gases						
1. Total Release (Ci)	1.22 E+03	1.23 E+03	1.88 E+03	2.43 E+03	2.09 E+03	1.30 E+03
2. Avg Rel Rate for Period( $\mu$ Ci/sec)	4.5 E+02	5.1 E+02	7.0 E+02	9.4 E+02	7.7 E+02	5.0 E+02
*3. Max Rel Rate for Period( $\mu$ Ci/sec)	5.0 E+04	2.3 E+04	6.6 E+03	2.0 E+04	3.5 E+04	4.3 E+04

\*Maximum airborne release rate averaged over one hour for each month. Technical Specification limit is  $6.7 \text{ E}+04 \text{ } \mu\text{Ci/sec}$  averaged over one hour.

B. Iodine - 131						
1. Total Iodine - 131 (Ci)	1.5 E-01	9.1 E-02	2.7 E-02	6.5 E-02	7.9 E-03	2.3 E-03
2. Avg Rel Rate for Period( $\mu$ Ci/sec)	5.6 E-02	3.8 E-02	1.0 E-02	2.5 E-02	2.9 E-03	8.8 E-04

C. Particulates						
1. Particulates with $t_{1/2} > 8\text{d}$ (Ci)	5.35 E-03	2.60 E-02	1.85 E-02	6.98 E-04	2.34 E-04	1.14 E-04
2. Avg Rel Rate for Period( $\mu$ Ci/sec)	2.0 E-03	1.1 E-02	6.9 E-03	2.7 E-04	8.7 E-05	4.4 E-05
3. Gross Alpha Radioactivity (Ci)	1.7 E-07	8.6 E-08	6.2 E-08	$< 3.2 \text{ E}-09$	6.3 E-09	1.9 E-09

D. Tritium						
1. Total Release (Ci)	5.74 E-01	1.50 E+00	7.29 E-02	1.61 E-01	1.72 E-01	2.27 E-01
2. Avg Rel Rate for Period( $\mu$ Ci/sec)	2.1 E-01	6.3 E-01	2.7 E-02	6.2 E-02	6.4 E-02	8.7 E-02

E. Percent of Applicable Limit	Quarter I		Quarter II	
1. Fission and Activation Gases (%)	4.6 E+00		6.2 E+00	
2. I-131 and Part. ( $t_{1/2} > 8\text{d}$ ) (%)	3.5 E+00		9.6 E-01	

NOTE: Numbers in parenthesis represent maximum sensitivity in  $\mu\text{Ci/cc}$ .

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Table II - Airborne Releases - Particulate

Page 2

Isotope	Unit	January	February	March	April	May	June
Ag-110m	CI	(<4.1 E-13)	1.5 E-04	(<8.8 E-13)	(<9.1 E-14)	(<4.4 E-14)	(<2.6 E-14)
Ba-140	CI	(<2.7 E-12)	(<9.4 E-12)	3.6 E-05	(<8.6 E-13)	3.2 E-05	(<2.9 E-13)
Ce-141	CI	3.9 E-05	(<4.8 E-13)	2.3 E-05	(<4.8 E-14)	(<2.4 E-14)	(<2.7 E-14)
Ce-144	CI	3.5 E-05	(<2.1 E-12)	(<1.8 E-12)	(<2.1 E-13)	(<1.0 E-13)	(<1.3 E-13)
Co-57	CI	7.1 E-06	4.2 E-05	3.2 E-05	(<3.0 E-14)	(<1.3 E-14)	(<1.7 E-14)
Co-58	CI	1.8 E-03	1.8 E-02	1.3 E-02	4.6 E-04	6.0 E-05	2.4 E-05
Co-60	CI	2.8 E-03	3.5 E-03	2.8 E-03	1.4 E-04	4.2 E-05	6.6 E-05
Cr-51	CI	1.2 E-04	2.6 E-03	1.4 E-03	(<4.8 E-13)	(<2.6 E-13)	(<1.6 E-13)
Cs-134	CI	1.1 E-05	1.0 E-05	3.5 E-05	2.5 E-05	2.0 E-05	4.2 E-06
Cs-136	CI	5.9 E-06	(<6.1 E-13)	1.2 E-05	(<6.1 E-14)	(<5.5 E-14)	(<2.2 E-14)
Cs-137	CI	3.1 E-05	2.7 E-05	5.2 E-05	5.3 E-05	3.2 E-05	8.7 E-06
Fe-59	CI	(<6.5 E-13)	2.0 E-04	1.4 E-04	(<1.5 E-13)	(<5.6 E-14)	(<3.1 E-14)
I-131	CI	2.2 E-05	9.9 E-05	3.2 E-05	6.8 E-06	1.6 E-05	4.7 E-06
La-140	CI	(<1.1 E-13)	(<2.3 E-13)	2.0 E-05	(<5.4 E-14)	2.6 E-05	3.9 E-06
Mn-54	CI	7.6 E-05	4.8 E-04	3.6 E-04	1.1 E-05	2.9 E-06	1.8 E-06
Nb-95	CI	1.5 E-04	3.8 E-04	2.4 E-04	(<8.3 E-14)	(<4.0 E-14)	(<1.9 E-14)
Ru-103	CI	1.5 E-04	(<8.1 E-13)	(<6.9 E-13)	(<7.1 E-14)	(<4.0 E-14)	(<1.9 E-14)
Sb-124	CI	(<2.5 E-13)	2.7 E-04	1.5 E-04	(<8.9 E-14)	(<2.0 E-14)	(<1.4 E-14)
Sb-125	CI	(<5.8 E-13)	1.3 E-04	(<1.7 E-12)	(<1.9 E-13)	(<9.8 E-14)	(<5.4 E-14)
Sr-89	CI	6.8 E-06	6.9 E-06	1.1 E-05	1.7 E-06	2.9 E-06	2.7 E-07
Sr-90	CI	6.7 E-07	4.4 E-07	1.6 E-08	(<2.5 E-16)	1.4 E-07	(<2.5 E-16)
Zr-95	CI	9.1 E-05	1.5 E-04	1.3 E-04	(<1.2 E-13)	(<5.4 E-14)	(<3.0 E-14)
Total	CI	5.35 E-03	2.60 E-02	1.85 E-02	6.98 E-04	2.34 E-04	1.14 E-04

Numbers in parentheses represent maximum sensitivity in uCi/cc.

1978		Table II Airborne Releases - Gaseous					Page 3
Fission and Activation Gases							
Isotope	Unit	January	February	March	April	May	June
Ar-41	CI	2.27 E+00	3.31 E+00	4.08 E+00	1.35 E+01	5.56 E+00	4.01 E+00
Kr-85	CI	2.45 E-01	1.34 E+00	2.49 E-02	4.03 E-01	1.70 E-01	(<3.6 E-05)
Kr-85m	CI	1.86 E+00	2.87 E+00	9.53 E-02	2.8 E-01	4.30 E-01	2.70 E-01
Kr-87	CI	1.94 E+00	3.10 E+00	(<3.7 E-07)	(<2.6 E-06)	(<3.0 E-06)	(<2.7 E-07)
Kr-88	CI	2.29 E+00	3.57 E+00	(<1.0 E-06)	1.07 E-01	3.35 E-01	1.55 E-01
Xe-131m	CI	4.97 E+00	1.18 E+00	3.38 E-02	1.21 E-01	1.37 E+00	1.17 E+00
Xe-133	CI	1.18 E+03	1.18 E+03	1.87 E+03	2.41 E+03	2.07 E+03	1.28 E+03
Xe-133m	CI	3.99 E+00	2.29 E+00	3.4 E-01	1.01 E+00	4.13 E+00	3.19 E+00
Xe-135	CI	1.32 E+01	1.78 E+01	1.77 E+00	5.32 E+00	8.98 E+00	6.37 E+00
Xe-135m	CI	3.41 E+00	6.05 E+00	(<5.8 E-07)	1.74 E-01	(<1.4 E-06)	(<1.6 E-07)
Xe-138	CI	1.96 E+00	3.72 E+00	(<8.4 E-07)	(<1.1 E-05)	(<8.4 E-06)	(<2.7 E-07)
Total	CI	1.22 E+03	1.23 E+03	1.88 E+03	2.43 E+03	2.09 E+03	1.30 E+03

Halogens (Gaseous)							
Isotope	Unit	January	February	March	April	May	June
I-133	CI	1.5 E-01	9.1 E-02	2.7 E-02	6.5 E-02	7.9 E-03	2.3 E-03
I-133	CI	3.5 E-02	2.8 E-02	1.2 E-02	2.1 E-02	1.8 E-03	6.8 E-04
I-135	CI	7.3 E-03	1.1 E-02	2.2 E-03	7.6 E-03	(<1.2 E-13)	(<1.4 E-13)
Br-82	CI	3.0 E-04	2.5 E-04	4.1 E-04	1.0 E-03	3.0 E-04	--
Total	CI	1.9 E-01	1.30 E-01	4.2 E-02	9.5 E-02	1.00 E-02	3.0 E-03

NOTE: Numbers in parenthesis represent maximum sensitivity in  $\mu\text{Ci/cc}$ .

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)  
DISTRIBUTION FOR INCOMING MATERIAL

50-250-251

REC: OREILLY J P  
NRC

ORG: UHRIG R E  
FL PWR & LIGHT

DOCDATE: 08/30/78  
DATE RCVD: 09/07/78

DOCTYPE: LETTER NOTARIZED: NO

COPIES RECEIVED

SUBJECT:

LTR 1 ENCL 23

FORWARDING COPY OF SUBJECT FACILITY'S SEMIANNUAL RADIOACTIVE EFFLUENT REPT  
AND SEMIANNUAL ENVIRON MONITORING REPT FOR THE PERIOD JAN1, 1978 THROUGH JUNE  
30, 1978.

For RPT, SEE 50-250 ENVIRO RPTS.

PLANT NAME: TURKEY PT #3  
TURKEY PT #4

REVIEWER INITIAL: XJM  
DISTRIBUTER INITIAL: RTW

\*\*\*\*\* DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS \*\*\*\*\*

ANNUAL ENVIRONMENTAL RPTS (OL STAGE).  
(DISTRIBUTION CODE A007)

FOR ACTION: BR CHIEF ORB#1 BC\*\*W/7 ENCL

INTERNAL:

REG FILE\*\*W/ENCL

I & E\*\*W/2 ENCL

ENVIRO SPEC BR\*\*W/ENCL

RAD ASSESSMENT BR\*\*W/ENCL

NRC PDR\*\*W/ENCL

EEB\*\*W/ENCL

EFFLUENT TREAT SYS\*\*W/ENCL

KASTNER\*\*W/ENCL

EXTERNAL:

LPDR'S

MIAMI, FL\*\*W/ENCL

TERA\*\*W/ENCL

NSIC\*\*W/ENCL

ACRS CAT B\*\*W/ENCL

DISTRIBUTION. LTR 20 ENCL 20  
SIZE: 1P+30P

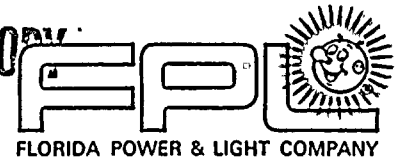
CONTROL NDR: 782490099

\*\*\*\*\* THE END \*\*\*\*\*

Enviro  
cop



REGULATORY DOCKET FILE COPY



August 30, 1978  
L-78-285

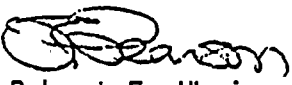
Mr. James P. O'Reilly, Director, Region II  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Semiannual Radiological Reports

Two copies of the Turkey Point Semiannual Radioactive Effluent Report and Semiannual Environmental Monitoring Report for the period January 1, 1978 through June 30, 1978 are attached. These reports are submitted in compliance with Technical Specification 6.9.4.

Very truly yours,

  
Robert E. Uhrig  
Vice President

REU/MAS/ms

Attachment

cc: Director, Office of Inspection and Enforcement (6)  
Director, Office of Nuclear Reactor Regulation (17)  
Robert Lowenstein, Esquire

A 08/10/78

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)  
DISTRIBUTION FOR INCOMING MATERIAL

50-250/251

REC: KREITMAN A  
S FL WATER MGMT DIST

ORG: TUCKER W S  
FL PWR & LIGHT

DOCDATE: 08/01/78  
DATE RCVD: 08/08/78

DOCTYPE: LETTER NOTARIZED: NO

COPIES RECEIVED

SUBJECT: LTR 1 ENCL 1

FORWARDING GROUNDWATER MONITORING PROGRAM DATA FOR AUGUST 1978 FOR WELLS ID-A  
THROUGH ID-E, L-1 THROUGH L-6, G-7, G-21, G-28, G-35, X-1 AND X-2... W/ATT  
INTERCEPTOR DITCH PROGRAM DATA FOR JULY 1978, & LABORATORY ANALYSIS OF  
GROUND-WATER SAMPLES TAKEN FOR 8/78 MONITORING PERIOD

PLANT NAME: TURKEY PT #3  
TURKEY PT #4

REVIEWER INITIAL: XJM  
DISTRIBUTER INITIAL: *me*

\*\*\*\*\* DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS \*\*\*\*\*

ANNUAL ENVIRONMENTAL RPTS (OL STAGE).  
(DISTRIBUTION CODE A007)

FOR ACTION: BR CHIEF ORB#1 BC\*\*W/7 ENCL

INTERNAL: REG FILE\*\*W/ENCL  
I & E\*\*W/2 ENCL  
ENVIRO SPEC BR\*\*W/ENCL  
RAD ASSESSMENT BR\*\*W/ENCL

NRC PDR\*\*W/ENCL  
EEB\*\*W/ENCL  
EFFLUENT TREAT SYS\*\*W/ENCL  
KASTNER\*\*W/ENCL  
*HULMAN W/ENCL*

EXTERNAL: LPDR'S  
MIAMI, FL\*\*W/ENCL  
TERA\*\*W/ENCL  
NSIC\*\*W/ENCL  
ACRS CAT B\*\*W/ENCL

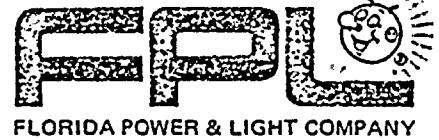
*Enviro*

DISTRIBUTION: LTR <sup>21</sup>20 ENCL <sup>21</sup>20  
SIZE: 1P+22P

CONTROL NBR: 782210334

\*\*\*\*\* THE END \*\*\*\*\*

*cap*



August 1, 1978.

Mr. Abe Kreitman, Director  
Groundwater Division  
Resource Planning Department  
South Florida Water Management  
District  
Post Office Box V  
West Palm Beach, Florida 33402

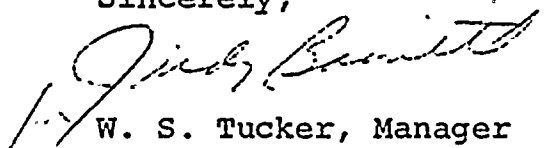
Dear Mr. Kreitman:

Re: FPL/FCD Cooling Canal System Agreement  
Turkey Point Plant, Dade County

Enclosed please find the Groundwater Monitoring Program data for August 1978 for Wells ID-A through ID-E, L-1 through L-6, G-7, G-21, G-28, G-35, X-1 and X-2.

Also enclosed is the Interceptor Ditch Program data for July 1978, and the laboratory analysis of the groundwater samples taken for the August 1978 monitoring period.

Sincerely,

  
W. S. Tucker, Manager  
Environmental Affairs

REGULATORY DOCKET FILE COPY

Enc.

cc: Mr. J. P. Reilly, USNRC (Docket No. 50-250/251)  
(Control No. 8728)  
Mr. Victor Stello, Jr., USNRC

782210334

A007  
5/1/80  
A00  
HULLMAN

**GROUND WATER MONITORING PROGRAM**  
**FCD WELL SERIES**  
**TURKEY POINT, FLORIDA**

WELL ID 1D-A DATE (MN/DD/YY) 07/24/78 CHECKED BY WEd  
 (1-4) (10-17) CASING ELEVATION (FT.MSL) 3.36

TIME 0935 RECORDER GAB WATER LEVELS (FT) 1.89 SURFACE 1.11  
 (20-23) (25-27) (DEPTH BELOW CASING) (30-33) (35-38)

CHARACTERISTIC DATE AUG-78 MONTH-YY 1.47 WATER ELEVATION (FT) 1.47 SURFACE 1.47  
 (40-46)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1			21	43500	27.7	41	56000	28.8
2			22	44000	27.8	42		
3	01500	28.1	23	44500	28.0	43		
4	01400	28.0	24	47000	28.0	44		
5		27.5	25	49000	28.1	45		
6			26	51000	28.3	46		
7			27	52000	28.6	47		28.8
8			28		28.8	48		28.7
9			29	52000		49		28.6
10			30	53000		50		28.6
11			31	55000		51		28.5
12			32			52		
13			33			53		
14			34			54		
15		27.5	35			55		
16		27.3	36			56		
17	01400	27.2	37			57		
18	18000	27.1	38			58		
19	37000	27.4	39	55000		59		
20	42000	27.5	40	56000	28.8	60	56000	28.5

(2) (6) (12) (22) (26) (32) (42) (46) (52)

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID \_\_\_\_\_ DATE (MN/DD/YY) \_\_\_\_\_ CHECKED BY 1.821

10-13 (1-4) 07/24/78 (10-17) CASING ELEVATION (FT.MSL) 9.50

TIME 1010 (20-23) RECORDER GAB (25-27) WATER LEVELS (FT) (DEPTH BELOW CASING) 8-110 (30-33) GROUND SURFACE 111 (35-38)

CHARACTERISTIC DATE AUG-78 (40-46) MONTH-YY WATER ELEVATION (FT) 1.70 GROUND SURFACE

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1			21	01600	27.0	41	55000	27.1
2			22			42	55500	27.4
3			23	01600		43	56000	
4			24	31000		44		27.4
5			25	43000		45		27.5
6			26	45000	27.0	46		
7			27	49000	26.9	47		
8			28	50000	26.8	48		
9	03500	27.0	29	50500	26.6	49		
10	02200		30	51000	26.5	50		
11	02000		31	51000		51		
12	01800		32	51500		52		
13	01700		33	52000		53		
14	01700		34	52000	26.5	54		
15	01600		35	52500	26.8	55		
16			36	53000	26.9	56		
17			37	53500	27.0	57		
18			38	54000		58		
19			39	54500		59		
20	01600	27.0	40	55000	27.0	60	56000	27.5

# FCD WELL SERIES TURKEY POINT, FLORIDA

WELL ID 10-K DATE (MN/DD/YY) 07/24/78 CHECKED BY 185A  
 (1-4) (10-17) CASING ELEVATION (FT.MSL) 10.44

TIME 1045 RECORDER GAB WATER LEVELS (FT) - 9.40 GROUND 9.40 SURFACE 10.44  
 (20-23) (25-27) (DEPTH BELOW CASING) (30-33) (35-38)

CHARACTERISTIC DATE AUG-78 MONTH-YY 10.04 WATER ELEVATION (FT) 1.04 GROUND 1.04 SURFACE 10.44  
 (40-46)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1			21	06800	24.0	41	55000	25.5
2			22	07600		42		
3			23	08300		43		
4			24	09700		44		
5			25	16000	24.0	45		25.5
6			26	37000	24.1	46		25.7
7			27	43000	24.5	47	55000	25.9
8			28	47000		48	56000	26.0
9			29	51000	24.5	49	56500	26.0
10	04900	25.7	30	51500	24.9	50	57000	26.1
11	04800	25.5	31	52000	25.0	51		26.3
12	04600	25.1	32	53000	25.1	52		26.4
13		25.0	33	53500	25.2	53		26.5
14		24.8	34	54000	25.3	54		
15		24.5	35		25.4	55		
16	04600	24.3	36			56		
17	04700	24.2	37	54000		57		
18	04800	24.0	38	54500	25.4	58		
19	05500	24.0	39	54500	25.5	59		
20	06300	24.0	40	55000	25.5	60	57000	26.5

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID

DATE (MM/DD/YY) CHECKED BY

USA

10-P

07/24/78

CASING ELEVATION (FT.MSL) 11.86

(1-4)

(10-17)

TIME

RECORDER

GROUND

SURFACE

1050

GAB

WATER LEVELS (FT)  
(DEPTH BELOW CASING)

10-8

-

(20-23)

(25-27)

(30-33)

(35-38)

CHARACTERISTIC DATE

WATER ELEVATION (FT)

GROUND

SURFACE

AVG-78

MONTH-YY

(40-46)

1.06

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11	04000	25.5
12	03200	25.2
13	03800	25.0
14	02600	24.5
15	02300	24.0
16	02500	23.8
17	02900	23.6
18	03000	23.4
19		
20	03000	23.4

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
21	03000	23.4
22		
23	03000	23.4
24	03300	23.1
25	03900	
26	04200	
27	06200	
28	22000	
29	26000	
30	28000	
31	30000	23.1
32	34000	23.2
33	36000	23.4
34	40000	23.5
35	44000	23.5
36	46000	23.7
37	47000	23.8
38	48000	24.0
39	50500	
40	51000	24.0

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
41	51000	24.0
42		
43		
44		
45	51000	
46	52000	
47	52500	
48	53000	
49		
50		
51		24.0
52		24.2
53		24.3
54		24.4
55		24.4
56		24.5
57		24.6
58		24.7
59		24.8
60	53000	24.9

(2)

(6)

(12)

(22)

(26)

(32)

(42)

(46)

(52)

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID \_\_\_\_\_ DATE (MN/DD/YY) \_\_\_\_\_ CHECKED BY WZA

10-E (1-4) 07/24/18 (10-17) CASING ELEVATION (FT.MSL) 7.85

TIME 12/5 (20-23) RECORDER GAB (25-27) WATER LEVELS (FT) (DEPTH BELOW CASING) 7.00 (30-33) GROUND SURFACE 7.85 (35-38)

CHARACTERISTIC DATE Aug-18 (40-46) MONTH-YY WATER ELEVATION (FT) 0.85 GROUND SURFACE

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1			21	27000	24.9	41	53500	23.4
2			22	32000	24.8	42		
3			23	37000	24.7	43		
4			24	41000	24.6	44		
5			25	45000	24.5	45		
6			26	50000	24.4	46		
7			27	51000	24.3	47		
8	05700	28.1	28	52000	24.1	48		
9	05000	27.9	29	53000	24.0	49		
10	04700	27.5	30		23.7	50		
11	04600	27.2	31	53000	23.5	51		
12	04500	27.0	32	53500	23.4	52		
13	04700	26.9	33			53		
14	04800	26.8	34			54		
15	04900	26.7	35			55		
16	05000	26.6	36			56		
17	09200	26.0	37			57		
18	15000	25.9	38			58		
19	17000	25.5	39			59		
20	20000	25.0	40	53500	23.4	60	53500	23.4



GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID 2-1 DATE (MM/DD/YY) 07/25/78 CHECKED BY WGA  
(1-4) (10-17) CASING ELEVATION (FT.MSL) 8.59

TIME 0745 RECORDER GAG WATER LEVELS (FT) 7.50 SURFACE 111  
(20-23) (25-27) (DEPTH BELOW CASING) (30-33) (35-38)

CHARACTERISTIC DATE AUG-78 MONTH-YY WATER ELEVATION (FT) 1.09 SURFACE  
(40-46)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1			21	03100	24.9	41	43000	24.5
2			22	04000	24.7	42	44000	
3			23	04900	24.5	43	44500	
4			24	07200		44	45000	
5			25	11000		45	45500	
6			26	13000		46	46500	
7			27	14000		47	47000	
8	03400	26.5	28	15000		48	47500	
9	02800	26.3	29			49	47500	24.5
10	02600	26.0	30	15000		50	48000	24.6
11			31	15500		51	48000	24.7
12		26.0	32			52	48500	24.7
13		25.7	33			53	49000	24.9
14		25.6	34			54	49500	25.0
15		25.5	35	15500		55	50000	
16		25.2	36	24000		56		
17		25.1	37	36000		57		
18		25.0	38	40000		58		
19		25.0	39	41000		59		
20	02600	24.9	40	42000	24.5	60	50000	25.0

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID

DATE (MN/DD/YY) CHECKED BY 100A

L-2

07/25/78

CASING ELEVATION (FT.MSL) 8.27

(1-4)

(10-17)

TIME

RECORDER

GROUND

SURFACE

0830

GAB

WATER LEVELS (FT)  
(DEPTH BELOW CASING)

7.10

(20-23)

(25-27)

(30-33)

(35-38)

CHARACTERISTIC DATE

AUG-7-78

MONTH-YY

WATER ELEVATION (FT)

GROUND

SURFACE

(40-46)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1		
2		
3		
4		
5		
6		
7		
8	02200	25-3
9	01800	
10	01600	
11	01300	
12	01200	
13	01100	
14		
15		
16		25-3
17		25-1
18		
19		
20	01100	25-1

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
21	01100	25-1
22		25-0
23		
24		
25		
26		25-0
27	01100	24-8
28	19000	24-8
29	26000	24-7
30	30000	24-5
31	31000	
32	32000	
33	35000	24-5
34	40000	24-7
35	43000	24-9
36	47000	25-0
37	49000	
38	50000	
39		
40	50000	25-0

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
41	51000	25-1
42	51500	25-2
43	52500	25-4
44	53000	25-6
45		
46		
47		
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60	53000	25-6

(2)

(6)

(12)

(22)

(26)

(32)

(42)

(46)

(52)

**GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA**

WELL ID

**L-3**

(1-4)

DATE (MM/DD/YY)

**07/24/78**

(10-17)

CHECKED BY

*WJA*

CASING ELEVATION (FT.MSL)

**8.61**

TIME

**1415**

(20-23)

RECORDER

**GAB**

(25-27)

WATER LEVELS (FT)

(DEPTH BELOW CASING)

GROUND

**7.40**

(30-33)

SURFACE

**111**

(35-38)

CHARACTERISTIC DATE

**AUG-78**

(40-46)

MONTH-YY

WATER ELEVATION (FT)

GROUND

**1.21**

SURFACE

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1		
2		
3		
4		
5		
6		
7		
8	01900	27.5
9	01700	27.3
10	01600	27.2
11	01500	27.0
12		27.0
13		26.8
14		26.4
15		26.2
16		25.9
17		25.6
18		25.4
19		25.2
20	01500	25.0

(2)

(6)

(12)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
21	01500	25.0
22		25.6
23	01500	25.4
24	01600	24.2
25	01600	24.0
26	12000	
27	18000	
28	31000	
29	37000	24.0
30	39000	23.9
31	41000	23.6
32	41000	23.5
33	41500	
34	41500	
35	42500	23.5
36	49000	23.7
37	50000	23.9
38	50500	24.0
39	51000	
40	51000	24.0

(22)

(26)

(32)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
41	51000	24.0
42		
43		24.0
44	51000	24.3
45	52000	24.5
46	52500	
47	53000	
48		
49		
50		
51		
52	53000	
53	53500	
54	54000	
55		
56		
57		
58		
59		
60	54000	24.5

(42)

(46)

(52)

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID DATE (MN/DD/YY) CHECKED BY 1071

L-4 07/24/78 CASING ELEVATION (FT.MSL) 7.76

(1-4) (10-17)

TIME RECORDER

1345 GAB WATER LEVELS (FT) - SURFACE

(20-23) (25-27) (DEPTH BELOW CASING) 6250 (30-33) (35-38)

CHARACTERISTIC DATE

AUG-78 MONTH-YY WATER ELEVATION (FT) GROUND 7.26 SURFACE

(40-46)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1		
2		
3		
4		
5		
6		
7	02200	26.7
8	02000	26.5
9	01700	26.3
10	01600	26.0
11	01500	25.5
12		25.4
13		25.2
14	01500	25.1
15	01600	25.0
16	01800	24.8
17	02000	24.7
18	02300	24.5
19	02500	24.3
20	02700	24.2

(2)

(6)

(12)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
21	03300	24.1
22	03700	23.9
23	05600	23.6
24	18000	
25	25000	
26	33000	
27	36000	
28	37000	
29	38000	
30	39000	23.6
31	40000	23.5
32	41000	
33	41500	
34	42000	
35	44000	
36	46000	
37	46500	
38	47000	
39	48000	
40	49000	23.5

(22)

(26)

(32)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
41	49000	23.5
42	49500	
43	50000	23.5
44	50000	23.6
45	51000	23.7
46	51500	23.9
47	52000	24.0
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60	52000	24.0

(42)

(46)

(52)

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID 4-5 DATE (MM/DD/YY) 07/24/78 CHECKED BY 105A

(1-4) (10-17) CASING ELEVATION (FT.MSL) 9.33

TIME 1315 RECORDER GAG WATER LEVELS (FT) (DEPTH BELOW CASING) 8.10 GROUND (30-33) SURFACE (35-38)

CHARACTERISTIC DATE AUG-78 MONTH-YY WATER ELEVATION (FT) 1.23 GROUND SURFACE

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1		
2		
3		
4		
5		
6		
7		
8		
9	01900	25.5
10	01800	25.1
11	01500	25.0
12		
13		
14		
15		
16		
17		
18		
19		
20	01500	25.0

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
21	03000	25.0
22	03500	24.6
23	03700	24.5
24	04000	24.3
25	04500	24.2
26	15000	24.0
27	25000	23.8
28	29000	23.7
29	31000	23.6
30	32500	23.5
31	34000	
32	40000	
33	43000	
34	43500	
35		
36	43500	
37	44000	
38	46000	
39	47000	
40	48000	23.5

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
41	48000	23.5
42	48000	
43	48500	
44	49000	
45		
46	49000	
47	49500	
48		
49		
50	49500	
51	50000	
52		
53		
54		
55		
56		
57		
58	50000	
59	50500	
60	50500	23.5

FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID 4-6 DATE (MM/DD/YY) 07/24/78 CHECKED BY WJA  
(1-4) (10-17) CASING ELEVATION (FT.MSL) 2.95

TIME 1245 RECORDER GAB WATER LEVELS (FT) 1.42 GROUND 1.53 SURFACE -  
(20-23) (25-27) (DEPTH BELOW CASING) (30-33) (35-38)

CHARACTERISTIC DATE AUG-78 MONTH-YY WATER ELEVATION (FT) 1.53 GROUND 1.53 SURFACE -  
(40-46)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
<del>1</del>	<del></del>	<del></del>	21	01200	29.0	41	46000	24.0
<del>2</del>	<del></del>	<del></del>	22			42	46500	
3	01300	29.4	23			43	47000	
4	01200	29.4	24			44	48000	
5			25	01200	29.0	45	49000	
6			26	01500	28.5	46	50000	
7			27	31000	27.5	47	51000	
8			28	38000	26.2	48		
9			29	41000	25.0	49	51000	
10			30	44000	24.5	50	52000	
11			31		24.3	51	53000	
12			32		24.2	52		
13		29.4	33	44000	24.1	53		
14		29.3	34	44500	24.0	54		
15			35			55		
16		29.3	36			56		
17		29.2	37			57		
18		29.0	38			58		
19			39	44500		59		
20	01200	29.0	40	45000	24.0	60	53000	24.0

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID

G-7

(1-4)

DATE (MM/DD/YY) CHECKED BY

07/25/78

(10-17)

CASING ELEVATION (FT.MSL) To be resurveyed

TIME

0935

(20-23)

RECORDER

GAB

(25-27)

WATER LEVELS (FT)  
(DEPTH BELOW CASING)

GROUND

3.25

(30-33)

SURFACE

111

(35-38)

CHARACTERISTIC DATE

AUG-78

(40-46)

MONTH-YY

WATER ELEVATION (FT)

GROUND

SURFACE

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
1		
2		
3		
4		
5	00900	24.5
6	00890	24.3
7	00860	24.0
8	00850	23.5
9	00840	23.3
10	00820	23.0
11	00810	22.9
12	00800	22.8
13	00790	22.7
14		22.6
15		
16		
17		
18		
19		
20	00790	22.6

(2)

(6)

(12)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
21	00790	22.6
22		
23		
24		
25		
26		22.6
27		22.5
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40	00790	22.5

(22)

(26)

(32)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
41	00790	22.5
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60	00790	22.5

(42)

(46)

(52)



**GROUND WATER MONITORING PROGRAM**  
**FCD WELL SERIES**  
**TURKEY POINT, FLORIDA**

WELL ID \_\_\_\_\_ DATE (MM/DD/YY) \_\_\_\_\_ CHECKED BY 10/21

G-21 (1-4) 07/26/78 (10-17) CASING ELEVATION (FT.MSL) 4.20

TIME \_\_\_\_\_ RECORDER \_\_\_\_\_ GROUND \_\_\_\_\_ SURFACE \_\_\_\_\_

0800 (20-23) GALE (25-27) WATER LEVELS (FT) (DEPTH BELOW CASING) 2-20 (30-33) --- (35-38)

CHARACTERISTIC DATE \_\_\_\_\_ WATER ELEVATION (FT) \_\_\_\_\_ GROUND \_\_\_\_\_ SURFACE \_\_\_\_\_

AUG-78 (40-46) MONTH-YY 2.00

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
<del>1</del>	<del>---</del>	<del>---</del>	21	00580	24.5	41	00695	23.6
<del>2</del>	<del>---</del>	<del>---</del>	22	00590		42		
<del>3</del>	<del>---</del>	<del>---</del>	23	00600		43		
4	00510	26.7	24	00610	24.5	44		
5	00510	26.4	25	00615	24.4	45		
6	00570	26.0	26	00615	24.1	46		
7	00575	26.0	27	00620	24.0	47		
8	00575		28	00625		48		
9	00580		29	00630		49		
10		26.0	30		24.0	50		
11		25.6	31		23.9	51		
12		25.5	32		23.8	52		
13			33		23.6	53		
14		25.5	34	00630		54		
15		25.3	35	00640		55		
16		25.2	36	00670		56		
17		25.0	37	00690		57		
18		25.0	38	00695		58		
19		24.8	39			59		
20	00580	24.6	40	00695	23.6	60	00695	23.6

(2) (6) (12) (22) (26) (32) (42) (46) (52)



GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID G-28 (1-4) DATE (MN/DD/YY) 07/25/78 (10-17) CHECKED BY CCG CASING ELEVATION (FT.MSL) 2.70

TIME 0915 (20-23) RECORDER GAE (25-27) WATER LEVELS (FT) - (DEPTH BELOW CASING) 1.85 (30-33) SURFACE    (35-38)

CHARACTERISTIC DATE AUG-78 (40-46) MONTH-YY WATER ELEVATION (FT) 0.85 GROUND SURFACE

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
<del>1</del>			21	01400	23.0	41	05300	23.0
<del>2</del>			22			42	05500	
<del>3</del>			23			43	05700	
4	00820	25.0	24			44	07000	
5	00850	24.4	25			45	09000	
6	00850	24.0	26			46	12000	
7	00850	23.9	27			47	13000	
8	00920	23.7	28			48	14000	
9	01300	23.5	29			49	15000	
10	01300	23.4	30			50	16000	
11	01400	23.1	31			51		
12		23.0	32			52	16000	
13			33			53	16500	
14			34			54	17000	
15			35	01400		55	19000	
16			36	01800		56	21000	
17			37	03400		57	23000	
18			38	04300		58		
19			39	04900		59		
20	01400	23.0	40	04900	23.0	60	23000	23.0

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID DATE (MN/DD/YY) CHECKED BY 11/28

G-35 07/25/78 CASING ELEVATION (FT.MSL) 2.91

(1-4) (10-17)

TIME RECORDER WATER LEVELS (FT) - GROUND SURFACE  
1020 GAB (DEPTH BELOW CASING) 1.75      
 (20-23) (25-27) (30-33) (35-38)

CHARACTERISTIC DATE WATER ELEVATION (FT) GROUND SURFACE  
AUG -7 80 MONTH-YY 1.16      
 (40-46)

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
<del>1</del>	<del>   </del>	<del>   </del>	21	00800	23.5	41	00850	22.9
<del>2</del>	<del>   </del>	<del>   </del>	22			42	01700	
3	00800	27.0	23		23.5	43	03000	
4		26.5	24		23.3	44	03500	
5		26.0	25		23.1	45	04500	
6		25.6	26			46	05200	
7		25.1	27			47	05600	
8		24.8	28			48	06000	
9		24.6	29			49	06500	
10		24.5	30		23.1	50	07000	
11		24.2	31		23.1	51	08200	
12		24.2	32		23.0	52	12000	
13		24.1	33			53	15000	
14		23.9	34			54	16000	
15		23.6	35			55	17000	
16		23.5	36			56	21000	
17			37			57	26000	
18			38			58		
19			39			59		
20	00800	23.5	40	00800	23.0	60	26000	22.9
(2)	(6)	(12)	(22)	(28)	(32)	(42)	(46)	(52)

**GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA**

WELL ID \_\_\_\_\_ DATE (MM/DD/YY) \_\_\_\_\_ CHECKED BY WZA

X-1 07/24/78 CASING ELEVATION (FT.MSL) 6.44

(1-4) (10-17)

TIME 0905 RECORDER GAB WATER LEVELS (FT) (DEPTH BELOW CASING) 5.06 GROUND SURFACE

(20-23) (25-27) (30-33) (35-38)

CHARACTERISTIC DATE AUG-78 MONTH-YY WATER ELEVATION (FT) GROUND SURFACE

(40-46) 0.98

DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)	DEPTH BELOW CASING (FT)	COND. (UMHOS/CM)	TEMP. (°C)
<del>1</del>			21	30000	30.0	41	58000	33.0
<del>2</del>			22	33500	30.5	42		32.8
<del>3</del>			23	34000	31.0	43		32.6
<del>4</del>			24	34500	31.3	44		32.5
<del>5</del>			25	35000	31.7	45		32.4
6	01300	27.1	26	38000	31.9	46		32.2
7	01100		27	44000	32.5	47		32.1
8			28	47000	33.0	48		
9			29	51000	33.5	49		
10			30	53000	34.0	50		32.1
11			31	53500	34.0	51		32.0
12	01100	27.1	32	54000	34.1	52		
13	05000	27.3	33	55000	34.6	53		
14	07200	27.5	34	57000	35.0	54		
15	07900	27.8	35	58000	34.9	55		
16	13000	28.0	36		34.6	56	58000	
17	21000	28.3	37		34.3	57	58500	
18	25000	28.5	38		34.1	58	59000	
19	27000	29.0	39		34.0	59		
20	29000	29.5	40	58000	33.5	60	59000	32.0

(2) (6) (12) (22) (26) (32) (42) (46) (52)

GROUND WATER MONITORING PROGRAM  
FCD WELL SERIES  
TURKEY POINT, FLORIDA

WELL ID

DATE (MN/DD/YY) CHECKED BY WCA

X-2

07/24/78

CASING ELEVATION (FT.MSL) 5.66

(1-4)

(10-17)

TIME

RECORDER

GROUND

SURFACE

0830

GAB

WATER LEVELS (FT)  
(DEPTH BELOW CASING)

4-25

(20-23)

(25-27)

(30-33)

(35-38)

CHARACTERISTIC DATE

AUG-78

MONTH-YY

WATER ELEVATION (FT)

7.41

SURFACE

(40-46)

DEPTH BELOW CASING (FT)	COND. (UMHDS/CM)	TEMP. (°C)
1		
2		
3		
4		
5		
6	01500	27.0
7	01100	27.1
8		27-2
9		27.3
10		27-4
11		27.4
12		27.5
13		
14		
15		
16		
17		27.5
18		27.7
19	01100	27.9
20	25000	28.0

(2)

(6)

(12)

DEPTH BELOW CASING (FT)	COND. (UMHDS/CM)	TEMP. (°C)
21	27000	28.5
22	28500	29.0
23	29500	29.4
24	31000	30.0
25	34000	30.5
26	39000	31.1
27	44000	31.5
28	47000	32.2
29	49000	32.5
30	50000	32.7
31	50500	33.0
32	52000	33.4
33	56000	33.8
34	57000	34.0
35		34.1
36		34.0
37		33.8
38		33.7
39	57000	33.6
40	57500	33.5

(22)

(26)

(32)

DEPTH BELOW CASING (FT)	COND. (UMHDS/CM)	TEMP. (°C)
41	57500	33.0
42	58000	32.5
43		32.0
44		
45		
46		
47		
48		
49		
50		32.0
51		31.8
52		31.4
53		31.3
54		31.2
55		
56		
57		
58		
59		
60	58000	31.2

(42)

(46)

(52)

## GROUNDWATER MONITORING PROGRAM

## FCD WELL SERIES

## TURKEY POINT PLANT

## CHLORIDE DATA OF AUGUST, 1978

<u>WELL DESIGNATION</u>	<u>SAMPLE DATE</u>	<u>DEPTH IN FEET</u>	<u>CHLORIDE IN PPM</u>
X-1	7-24-78	50	21,691
X-2	7-24-78	38	21,591
G-7	7-25-78	60	799
G-21	7-25-78	60	399
G-28	7-25-78	60	6,697
G-35	7-25-78	60	8,196
L-1	7-25-78	48	16,943
L-2	7-25-78	45	19,792
L-3	7-24-78	50	19,092
L-4	7-24-78	60	18,442
L-5	7-24-78	49	17,393
L-6	7-24-78	32	15,793
ID-A	7-24-78	40	20,691
ID-B	7-24-78	50	20,541
ID-C	7-24-78	60	20,391
ID-D	7-24-78	55	18,892
ID-E	7-24-78	31	19,292

# WATER LEVELS-LEVEE 31, CANAL 32, INTERCEPTOR DITCH

## INTERCEPTOR DITCH PROGRAM

MONTH/YEAR 7/78

DAY	LINE A					LINE B					LINE C					LINE D					LINE E					OBS. DIFF.
	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	
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12																										
13	1.82	1.42	1.38	0.44	0.40	1.84	1.45	1.78	0.56	0.39	1.86	1.49	1.20	0.66	0.37	1.86	1.49	1.05	0.81	0.37	1.89	1.34	0.88	1.01	0.52	0.84
14																										
15																										
16																										

\* IF L-31 MINUS C-32 IS LESS THAN 0.2 FEET, THEN COMPLETE NEXT TWO COLUMNS

FLORIDA POWER & LIGHT CO.

# WATER LEVELS-LEVEE 31, CANAL 32, INTERCEPTOR DITCH

## INTERCEPTOR DITCH PROGRAM

MONTH/YEAR 7/78

DAY	LINE A					LINE B					LINE C					LINE D					LINE E					REMARKS						
	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT		L-31 FT, MSL	ID FT, MSL	C-32 FT, MSL	L-31 MINUS C-32, FT *	PUMPING REQ'D L-31 MINUS ID, FT	
17																																
18																																
19																																
20																																
21																																
22	1.16	1.40	1.46	0.30	0.26	1.18	1.44	1.34	0.34	0.24	1.15	1.48	1.24	0.45	0.21	1.64	1.48	1.10	0.54	0.21	1.70	1.44	0.56	0.24	0.25	1.70	1.44	0.56	0.24	0.25	1.70	1.44
23	1.64	1.39	1.44	0.20	0.35	1.64	1.44	1.34	0.30	0.30	1.68	1.48	1.24	0.44	0.20	1.70	1.50	1.15	0.55	0.35	1.70	1.40	0.99	0.71	0.28	1.70	1.40	0.99	0.71	0.28	1.70	1.40
24	1.61	1.37	1.45	0.16	0.24	1.62	1.42	1.33	0.29	0.20	1.65	1.46	1.20	0.45	0.19	1.65	1.47	1.09	0.56	0.18	1.70	1.40	0.97	0.73	0.30	1.70	1.40	0.97	0.73	0.30	1.70	1.40
25	1.60	1.20	1.45	0.15	0.40	1.60	1.24	1.30	0.30	0.36	1.63	1.40	1.21	0.42	0.23	1.61	1.44	1.09	0.52	0.17	1.66	1.35	0.80	0.86	0.31	1.66	1.35	0.80	0.86	0.31	1.66	1.35
26	1.56	1.04	1.46	0.10	0.52	1.56	1.07	1.35	0.21	0.47	1.60	1.42	1.21	0.46	0.18	1.58	1.35	1.09	0.57	0.23	1.54	1.35	0.97	0.65	0.29	1.54	1.35	0.97	0.65	0.29	1.54	1.35
27	1.56	1.30	1.55	0.01	0.26	1.57	1.31	1.42	0.15	0.26	1.60	1.46	1.30	0.30		1.57	1.45	1.12	0.47		1.62	1.36	0.97	0.65		1.62	1.36	0.97	0.65		1.62	1.36
28	1.55	1.11	1.53	0.02	0.44	1.54	1.14	1.40	0.16	0.42	1.57	1.41	1.27	0.32		1.58	1.45	1.14	0.44		1.61	1.37	1.03	0.58		1.61	1.37	1.03	0.58		1.61	1.37
29	1.53	1.07	1.53	0.00	0.46	1.54	1.11	1.42	0.12	0.43	1.57	1.47	1.30	0.27		1.56	1.45	1.16	0.40		1.59	1.37	1.06	0.53		1.59	1.37	1.06	0.53		1.59	1.37
30	1.51	1.08	1.65	-0.14	0.43	1.54	1.10	1.50	0.14	0.44	1.55	1.47	1.32	0.17	0.09	1.54	1.46	1.19	0.35		1.58	1.38	1.07	0.49		1.58	1.38	1.07	0.49		1.58	1.38
31	1.50	1.19	1.44	0.06	0.31	1.51	1.20	1.34	0.17	0.31	1.54	1.30	1.30	0.24		1.52	1.32	1.18	0.34		1.56	1.30	1.10	0.46		1.56	1.30	1.10	0.46		1.56	1.30

\* IF L-31 MINUS C-32 IS LESS THAN 0.2 FEET, THEN COMPLETE NEXT TWO COLUMNS

FLORIDA POWER & LIGHT CO.

# INTERCEPTOR DITCH PUMP OPERATION

MONTH / YEAR July / 78

DAY OF MONTH	PUMP NO. 1				PUMP NO. 2				PUMP NO. 3				PUMP NO. 4				REMARKS
	TIME	STAFF GAGE READING	FLOW FROM RATING CURVE (GPM)	I.D. SECTION BEING PUMPED	TIME	STAFF GAGE READING	FLOW FROM RATING CURVE (GPM)	I.D. SECTION BEING PUMPED	TIME	STAFF GAGE READING	FLOW FROM RATING CURVE (GPM)	I.D. SECTION BEING PUMPED	TIME	STAFF GAGE READING	FLOW FROM RATING CURVE (GPM)	I.D. SECTION BEING PUMPED	
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NO

PUMPING

REQUIRED.



# INTERCEPTOR DITCH PUMP OPERATION

MONTH / YEAR July / 78

DAY OF MONTH	PUMP NO. 1				PUMP NO. 2				PUMP NO. 3				PUMP NO. 4				REMARKS
	TIME	STAFF GAGE READING	FLOW FROM RATING CURVE (GPM)	I.D. SECTION BEING PUMPED	TIME	STAFF GAGE READING	FLOW FROM RATING CURVE (GPM)	I.D. SECTION BEING PUMPED	TIME	STAFF GAGE READING	FLOW FROM RATING CURVE (GPM)	I.D. SECTION BEING PUMPED	TIME	STAFF GAGE READING	FLOW FROM RATING CURVE (GPM)	I.D. SECTION BEING PUMPED	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24	1700	3.65	8600	1													
25	1500	3.65	8600	1													
26	1737	TURNED PUMP OFF															
27	1630	3.65	8600	1													
28	1010	3.65	8600	1													
29	1145	3.65	8600	1													
30	1150	3.64	8450	1													
31	1250	3.78	11,200	142	1250	3.70	112	9450									

FLORIDA POWER & LIGHT CO.