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bcc: J. R. Buchanan, ORNL
 Thomas B. Abernathy, DTIE

Change No. 8 to License Nos.
 DPR-31 & 41

9-10-73

Docket Nos. 50-250
 50-251

Florida Power & Light Company
 ATTN: Dr. Robert E. Uhrig
 Director of Nuclear Affairs
 P. O. Box 3100
 Miami, Florida 33101

Gentlemen:

By letter dated August 14, 1973, you proposed revisions to the Technical Specifications attached as Appendix A to Facility Operating Licenses DPR-31 and 41. This action is designated Change No. 8.

We have reviewed the proposed changes to the radiological environmental monitoring program. With the indicated pen-and-ink modifications shown on Table 4.12-1 Sheet 2 (enclosed), we approve these changes on the basis that the monitoring program is consistent with the programs of plants currently being licensed.

We conclude that the changes do not involve significant hazard considerations and there is reasonable assurance that the health and safety of the public will not be endangered. Accordingly, pursuant to Section 50.59 of 10 CFR Part 50, the Technical Specifications of Facility Operating Licenses DPR-31 and 41 are hereby changed as described in the Florida Power & Light letter of August 14, 1973 and as set forth in revised pages which are enclosed.

Sincerely,

R. C. DeYoung, Assistant Director
 for Pressurized Water Reactors
 Directorate of Licensing

*Approved by R. C. DeYoung
 change made*

Enclosure:
 As stated

cc:

OFFICE ▶	Mr. Jack Newman	PWR-2	PWR-2	AD/PWRs	RO	
SURNAME ▶	7701	PSCheck:ng	KKniel	RCDeYoung	R. C. DeYoung	
DATE ▶		9/5/73	9/5/73	9/10/73	9/6/73	



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

Docket Nos. 50-250
50-251

SEP 13 1973

Change No. 8 to
License Nos. DPR-31 & 41

Florida Power & Light Company
ATTN: Dr. Robert E. Uhrig
Director of Nuclear Affairs
P. O. Box 3100
Miami, Florida 33101

Gentlemen:

By letter dated August 14, 1973, you proposed revisions to the Technical Specifications attached as Appendix A to Facility Operating Licenses DPR-31 and 41. This action is designated Change No. 8.

We have reviewed the proposed changes to the radiological environmental monitoring program. With the indicated pen-and-ink modifications shown on Table 4.12-1 Sheet 2 (enclosed), we approve these changes on the basis that the monitoring program is consistent with the programs of plants currently being licensed.

We conclude that the changes do not involve significant hazard considerations and there is reasonable assurance that the health and safety of the public will not be endangered. Accordingly, pursuant to Section 50.59 of 10 CFR Part 50, the Technical Specifications of Facility Operating Licenses DPR-31 and 41 are hereby changed as described in the Florida Power & Light letter of August 14, 1973 and as set forth in revised pages which are enclosed.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. C. DeYoung".

R. C. DeYoung, Assistant Director
for Pressurized Water Reactors
Directorate of Licensing

Enclosure:
As stated

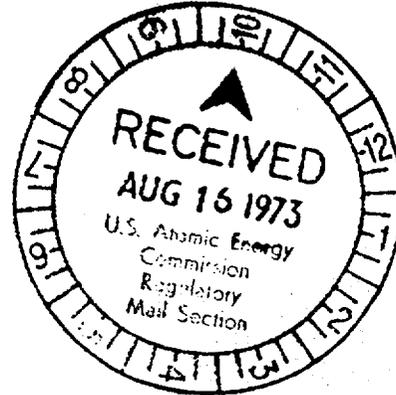
cc:
Mr. Jack Newman

August 14, 1973

Mr. R. C. DeYoung, Assistant Director
for Pressurized Water Reactors
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. DeYoung:

Re: Turkey Point Plant Units 3 and 4
Docket Nos. 50-250 and 50-251
Proposed Changes in Technical Specifications



In accordance with 10 CFR 50.59, Florida Power & Light Company submits herewith three (3) signed originals and nineteen (19) copies of its Request for Authorization of Changes to Specification 4.12 in Appendix A (Technical Specifications) to Facility Operating Licenses DPR-31 and DPR-41.

The proposed changes described below have been made to Page 4.12-1 and Table 4.12-1-four sheets, submitted herewith for your review, and also the addition of a figure (map) (Figure 4.12-1) showing sampling locations is proposed and submitted herewith for review:

1. Page 4.12-1

Change "schedule" to "program" under the Objective and reword the Specification to refer to the new Figure (map).

2. Table 4.12-1 (four sheets)

The table has been rearranged, sheets have been numbered, clarifying notes have been added (sheet 4), and sampling locations have been better defined by reference to points on the new figure (map).

Of particular note are the following:

2.1 Item 1.2 (was I.B) - The requirement for use of ion chambers has been removed since the Florida Division of Health has found it impossible to maintain these instruments in operable condition due to conditions of high humidity and salt air in the area. The TLD's provide the required data.

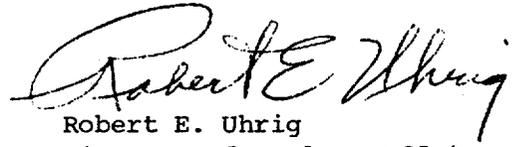
2.2 Item 2.1.1 (was II.A.1.) - The sampling frequency has been changed from monthly to quarterly as this frequency is adequate to follow trends.

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- 2.3 Item 2.1.2 - This is a new item. The locations are within the new cooling canal system.
- 2.4 Item 2.1.3 (was II.A.2.) - The sampling locations have been moved because of the new cooling canal system and sampling frequency has been changed to monthly from quarterly.
- 2.5 Item 2.3 (was II.F.) - Specific sample locations are given.
- 2.6 Items 3.2, 4.1, 4.2, 4.3, 5.2.3 - Collection frequency has been changed from quarterly to semi-annually as experience has shown this frequency is adequate to follow trends.
- 2.7 Item 4.3 (was II.E.3.b.) - The requirement to sample algae has been removed as no meaningful data results.
- 2.8 Item 5.2.2 (was III.B.2) - the collection frequency has been changed from "semi-annually" to "harvest time" as South Florida growing seasons are brief and in the cooler months of the year.

The proposed changes reflect past discussions with your staff and a comprehensive review of the program with the Florida Division of Health. Greater emphasis is being placed on sampling the closed cooling canal system as the most sensitive indicator of radiological trends.

Yours very truly,


Robert E. Uhrig
Director of Nuclear Affairs

REU:rp
Enclosures

cc: Mr. Jack R. Newman

APPROVED:


E. A. Adomat
Executive Vice President

4.12 ENVIRONMENTAL RADIATION SURVEY

Applicability: Applies to routine testing of plant environs.

Objective: To establish a sampling program which will assure cognizance of changes in radioactivity in the environs.

Specification: Radiological environmental samples shall be collected and analyzed in accordance with Table 4.12-1 at locations shown on Figure 4.12-1.

TABLE 4.12-1 - SHEET 1

OPERATIONAL ENVIRONMENTAL RADIOLOGICAL SURVEILLANCE PROGRAM (1)

	<u>Criteria and Sampling Locations</u>	<u>Collection Frequency (2)</u>	<u>Analysis/Counting</u>
1. <u>AIR</u>			
1.1 Particulate and Iodine	Comparison on-site versus off-site & reference locations 3 locations on-site in prevailing wind directions from plant T58, T71, T72 4 locations off-site within a radius of 10 miles of plant in prevailing wind directions from the plant T51, T52, T56, T57 1 location for reference 22 miles north of plant site T64	Weekly	Gross Beta Gamma spectral analysis of monthly composite indicated by high beta activity Radioactive Iodine
1.2 Direct Radiation	Comparison of on-site versus off-site & reference locations Sampling locations same as 1.1, plus off-site on North Key Largo T70	Monthly	Determine direct radiation exposure by TLD readout
1.3 Precipitation (3)	Comparison of on-site versus off-site reference locations 1 location on-site T79 1 location for reference 22 miles north of plant site T64 2 locations off-site within a radius of 10 miles of plant in prevailing wind directions from the plant T52, T57	Monthly	Gross beta Gamma spectral analysis (4) Tritium (4)
2. <u>WATER</u>			
2.1 Surface Water			
2.1.1 Estuarine	5 locations - Biscayne Bay T51, T67, T69, T71, T93 5 locations - Card South T66, T81, T86, T94, T95	Quarterly	Gamma spectral analysis Tritium Sr-89 & 90 (if detected in 2.1.2)
2.1.2 Cooling Canal System	1 location - Lake Warren T84 1 location - Loch Rosetta T97	Monthly	Gamma spectral analysis Tritium Sr-89 & 90

8/14/73

TABLE 4.12-1 - SHEET 2

OPERATIONAL ENVIRONMENTAL RADIOLOGICAL SURVEILLANCE PROGRAM (1)

	<u>Criteria and Sampling Locations</u>	<u>Collection Frequency (2)</u>	<u>Analysis/Counting</u>
2. <u>WATER</u> (cont'd)			
2.1.3 Fresh Water Drainage Canal	1 location - Florida City Canal West of Levee T75 1 location - Model Land Canal West of Levee T96	Monthly	Gross beta Tritium
2.2 Potable Well Water	Dolan Farm T57 City of Homestead, drinking water supply T73 Naranja Water Company, drinking water supply T74	Quarterly	Gross beta Tritium
2.3 Ground Water Wells	Locations west, south and east of cooling canal system T87, T88, T89, T90, T91, T92	Quarterly	Gamma spectral analysis Tritium Sr-89 & 90
3. <u>BOTTOM SEDIMENT</u>			
3.1 Cooling Canal System	2 locations T84, T85	Quarterly	Gamma spectral analysis Sr-89 & 90 (if detected in 2.1.2)
3.2 Estuarine	7 locations - T66, T69, T81, T86, T93, T94, T95	Semi-annually	Gamma spectral analysis Sr-89 & 90 (if detected in 2.1.2)
4. <u>AQUATIC BIOTA</u> (1)			
4.1 Crustacea			
Lobster, crab &/or shrimp	6 locations - T59, T66, T69, T81, T94, T95	Semi-annually	Gamma spectral analysis Sr-89 & 90
4.2 Fish (vertebrates)			
Carnivores: Barracuda or Mangrove Snapper	6 locations - T59, T66, T69, T81, T94, T95	Semi-annually	Gamma spectral analysis Sr-89 & 90

(3.1)

TABLE 4.12-1 - SHEET 3

OPERATIONAL ENVIRONMENTAL RADIOLOGICAL SURVEILLANCE PROGRAM (1)

	<u>Criteria and Sampling Locations</u>	<u>Collection Frequency (2)</u>	<u>Analysis/Counting</u>
4.	<u>AQUATIC BIOTA (1) (Cont'd)</u>		
	4.2 (Cont'd)		
	Herbivores: Mullet (mugil cephalus)	6 locations - T59, T66, T69, T81, T94, T95	Semi-annually Gamma spectral analysis Sr-89 & 90
	4.3 Other		
	Manatee Grass &/or Turtle Grass	6 locations - T59, T66, T69, T81, T94, T95	Semi-annually Gamma spectral analysis Sr-89 & 90
	Sponges (porifera)	6 locations - T59, T69, T86, T93, T94, T95	Semi-annually Gamma spectral analysis
5.	<u>TERRESTRIAL</u>		
	5.1 Milk (future) (1)	No dairy herds currently in area of influence (5)	
	5.2 Biota (1)		
	1. Small Animal	1 location adjacent to plant site	Semi-annually Gamma spectral analysis Sr-89 & 90
	2. Food Crops	3 locations within a 10 mile radius of plant in prevailing wind directions from plant T52, T55, T57	Harvest time Gamma spectral analysis Sr-89 & 90
	3. Other Vegetation (Mangrove leaves)	7 locations within a 10 mile radius of plant generally where there are air particulate samplers T51, T58, T59, T64, T71, T72, T86	Semi-annually Gamma spectral analysis Sr-89 & 90
	5.3 Soil	7 locations within a 10 mile radius of plant generally at air particulate sampler locations T52, T54, T55, T56, T57, T58, T64	Semi-annually Gamma spectral analysis Sr-89 & 90

8/14/73

TABLE 4.12-1 - SHEET 4

OPERATIONAL ENVIRONMENTAL RADIOLOGICAL SURVEILLANCE PROGRAM (1)

- (1) Samples will be taken whenever biologically available.
- (2) Frequency definitions follow:

Weekly -	Not less than 48 times per annum - interval may vary by 3 days.
Monthly -	Not less than 10 times per annum - interval may vary by 15 days.
Quarterly -	Not less than 4 times per annum - interval may vary by 30 days.
Semi-annually -	Not less than 2 times per annum - interval may vary by 60 days.
- (3) Analysis will be performed provided sufficient wet deposition occurs.
- (4) Gamma spectral and tritium analysis will be performed provided sufficient size liquid sample is collected.
- (5) A semi-annual survey will be conducted and any change reported to the AEC.
If milk producing herds are detected, a sampling program will be initiated.

8/14/73

