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UHRIG,R.E. Florida Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
EISENHUT,D.G. Division of Licensing

SUBJECT: Forwards responses to NRC requests for addl info re FSAR. Responses will be incorporated into FSAR amend.

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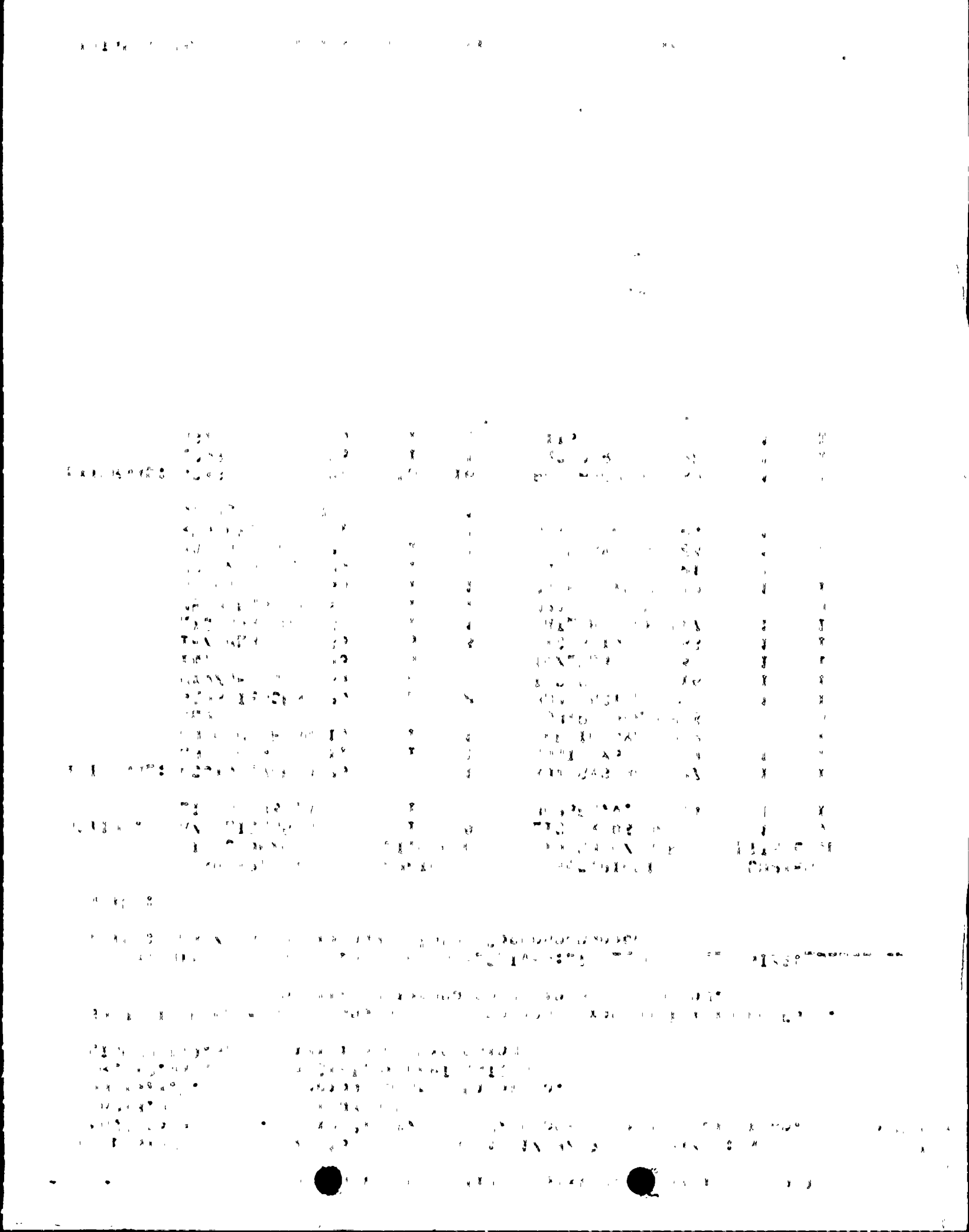

P.O. BOX 529100 MIAMI, FL 33152

FLORIDA POWER & LIGHT COMPANY

September 29, 1981
L-81-426

Office of Nuclear Reactor Regulation
Attention: Mr. Darrell G. Eisenhut, Director
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Eisenhut:

Re: St. Lucie Unit 2
Docket No. 50-389
Final Safety Analysis Report
Requests For Additional Information

Attached are Florida Power & Light Company (FPL) responses to NRC staff requests for additional information which have not been formally submitted on the St. Lucie Unit 2 docket. These responses will be incorporated into the St. Lucie Unit 2 FSAR in a future amendment.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/TCG/ah

Attachments

cc: J. P. O'Reilly, Director, Region II (w/o attachments)
Harold F. Reis, Esquire (w/o attachments)

B001
S1/1

Attachment L-81-426
September 29, 1981

A. Flordia Power & Lights' Position on Purge Valve Qualification.

B. Table 3.5-12, Allowable Ductility Factors

C. Revision of response to questions 240.2 and 240.3

D. Response to question 451.7

Flordia Power & Lights' Position On Purge Valve Qualification

Flordia Power & Light Company commits to provide assurance of operability qualification of containment purge valves prior to power operation above 5% power.

TABLE 3.5-12

ALLOWABLE DUCTILITY FACTORS (μ)

	μ
I. Reinforced Concrete	
a - Flexure (beams)	$\frac{0.10}{P - P'} \leq 10$
b - Flexure (slabs)	$\frac{0.10}{P - P'} \leq 30$
c - Compression (walls & columns)	1.3
d - Shear (beams & slabs)	
shear carried by concrete only	1.0
shear carried by concrete/stirrups	1.3
shear carried completely by stirrups	3.0
II. Structural Steel	
a- Flexure (beams)	10
b- Shear (beams)	1
c- Axial compression (columns)	1

$p = \frac{As}{bd}$

$p' = \frac{As'}{bd}$

where:

As = area of tension reinforcement

As' = area of compression reinforcement

b = width of sections

d = depth of section to centerline of reinforcement

Question No.

240.2 (3.4) The Safety Evaluation Report (Construction Permit Stage) states that stoplog closures are to be provided to protect the entrances to safety related structures up to elevation +22 ft. MLW. Stoplog closures on the entrances of the Reactor Auxiliary Building and the Fuel Handling Building are shown in Figures 1.2-13 and 1.2-16 of the FSAR. However, they are not discussed or described in other sections of the FSAR dealing with flood protection.

State whether the stoplogs will be provided. If not, justify that they are not needed. Provide analyses of wave runup at all entrances below elevation +22 MLW.

If the stoplogs are to be installed, provide:

a) the bottom elevation of the door openings and the dimensions of the openings secured by the stoplogs.

b) the time required to place the stoplogs into position.

c) the criteria to be used to determine when and if the stoplogs are to be placed into position.

d) a discussion of the relevant technical specifications.

Response

Based upon PMF high water elevation 17.2 ft mean low water (MLW) wave runup elevation 18.0 ft MLW and plant island elevation 18.5 ft MLW, flood protection stoplogs at entrances (whose minimum elevation is at least + 19.5 feet) to safety-related buildings are not deemed necessary. Additional wave runup protection is provided to the entrances of the Fuel Handling Building and Reactor Auxiliary Building by the presence of adjacent buildings and structures (see Englarged Site Plot Plan FSAR Figure 1.2-2). Since no permanent structures are located on the south side of the Reactor Auxiliary Building, additional wave runup protection will be provided by installing stoplogs in the entrance on the south wall and the southern most entrance on the east wall. Periodic inspection of the highway and dunes for breaching or erosion will be done periodically and aerial photographs of the beach and dune areas will be taken once a year if the Unit 1 Technical Specification for mangroves are deleted.

A description of the stoplogs found at St. Lucie Unit 2 is contained in revised Subsection 3.4.1.

Question No.

240.3 (2.4.13) Discuss the hydrologic technical specification explaining measures to be used to monitor the existing beach dunes and mangrove areas which are relied upon for hurricane protection. Provided the following information:

(a) the means by which storm erosion will be measured and the frequency of such surveys.

(b) the means by which the mangrove areas will be monitored to identify blighted areas and the frequency of such surveys.

Response

Beach dunes and mangroves areas are not relied upon to provide protection from hurricanes. As discussed in Subsection 2.4.5, the dunes are conservatively assumed to be eroded to an elevation of +4 feet MLW prior to computing the maximum possible quantities of erosion from Highway A1A and the plant island. No credit is taken for the energy dissipated or the time consumed in erosion of the dunes. Since the "stable base plain" elevations of +4 feet MLW to the east and south of the plant island and elevation +5 MLW on the north are the natural ground elevations of extensive flat areas, their visibility is not dependent on the existence of the mangroves. In the wave analysis Subsection 2.4.5, no reduction of wave height or energy by the mangroves is assumed.

No FSAR change required.

A visual inspection of the highway and dunes for breaching or erosion will be done periodically and aerial photographs of the beach and the dune areas will be taken once a year if the Unit 1 - Technical Specification for mangroves are deleted.