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 FACIL: 50-335 St. Lucie Plant, Unit 1, Florida Power & Light Co.  
 AUTH. NAME: UHRIG, R. E. AUTHOR AFFILIATION: Florida Power & Light Co.  
 RECIP. NAME: CLARK, R. A. RECIPIENT AFFILIATION: Operating Reactors Branch 3

DOCKET # 05000335

SUBJECT: Confirms that proposed stretch power Tech Spec changes & analyses are appropriate for Cycle 5 operation at 2700 MWt core power per NRC 810915 ltr. No further Tech Spec changes required.

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NOTES:

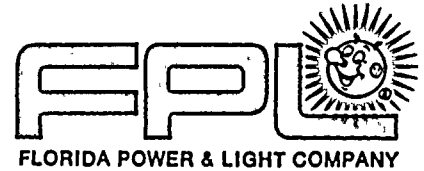
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October 8, 1981

L-81-439

Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
Attention: Mr. Robert A. Clark, Chief  
Operating Reactors Branch #3

Subject: St. Lucie Unit 1  
Docket No. 50-335  
Stretch Power Operation  
During Cycle 5



- Reference: 1. Letter, R. A. Clark to R. E. Uhrig, 9/15/81  
 2. Letter, R. E. Uhrig to D. G. Eisenhut, 11/14/80, L-80-381  
 3. Letter, R. E. Uhrig to D. G. Eisenhut, 7/23/81, L-81-306  
 4. Letter, R. E. Uhrig to R. R. Clark, 9/4/81, L-81-388

Dear Mr. Clark:

In response to your Reference 1 letter, this letter confirms that the proposed Stretch Power Technical Specification changes and analyses (References 2,3, and 4) are appropriate for Cycle 5 operation at 2700 MWt core power.

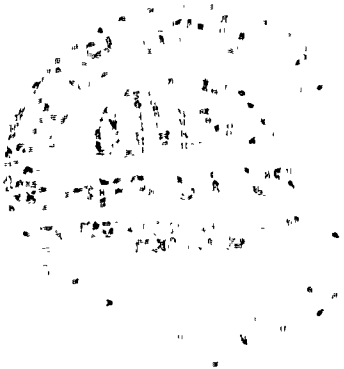
The Cycle 5 core will consist of sixty-four (64) fresh Batch G assemblies: thirty-two (32) assemblies of 3.65 w/o enrichment without shims; four (4) assemblies of 3.65 w/o enrichment with 4 shims; twenty-four (24) assemblies of 3.20 w/o enrichment with 8 shims and four (4) assemblies of 3.03 w/o enrichment with 8 shims. The remainder of the core will be composed of eighty-eight (88) Batch F fuel assemblies and sixty-five (65) Batch E assemblies. The quarter-core loading pattern for Cycle 5 is shown in the attached Figure 1.

Based on analyses and evaluation performed to support operation of Cycle 5 at 2700 MWt, it has been determined that:

1. No further Technical Specification changes are required for Cycle 5 operation.
2. The axial and radial power distributions calculated for Cycle 5 are bounded by the power distributions used to generate the Cycle 4 2700 MWt Technical Specifications.

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3. The control rod reactivity for Cycle 5 is conservative with respect to that used to generate the Cycle 4 2700 MWt Technical Specifications.
4. The Cycle 5 thermal-hydraulic parameters are within the bounds covered by the Cycle 4 2700 MWt Technical specifications and safety analyses.
5. The consequences of the events based on Cycle 5 input parameters fall within the established safety criteria, as do those for the Cycle 4, 2700 MWt safety analyses. Therefore, the conclusions are the same.
6. The anticipated fuel assembly burnups do not exceed the limits established in the Cycle 4 2700 MWt safety analyses.
7. The Cycle 5 parameters which affect the ECCS analysis are bounded by parameters used in the Cycle 4 2700 MWt ECCS performance analyses.
8. The new fuel (Batch G) to be loaded in Cycle 5 is identical in mechanical design to the Batch F fuel which was the new fuel loaded in Cycle 4.
9. The Cycle 5 safety analyses are based on an end of Cycle 4 burnup of 14,000  $\pm$ 500 MWD/MTU and Cycle 4 has shutdown within this design burnup "window."

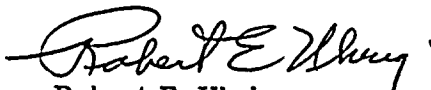
We have concluded that the Cycle 5 refueling and subsequent operation will not:

- (1) increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analyses,
- (2) create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analyses report, and
- (3) reduce the margin of safety as defined in the basis for any Technical Specification.

Therefore, FPL has determined that the Cycle 5 refueling and operation does not involve a change in the Technical Specification as submitted through References 2 and 3 or an unreviewed safety question.

Operation of Cycle 5 at 2700 MWt has been reviewed and approved by the St. Lucie Facility Review Group and the Florida Power and Light Company Nuclear Review Board.

Very truly yours,



Robert E. Uhrig  
Vice President

Advanced Systems & Technology

cc: Mr. J. P. O'Reilly, Director, Region II  
Mr. Harold F. Reis, Esquire

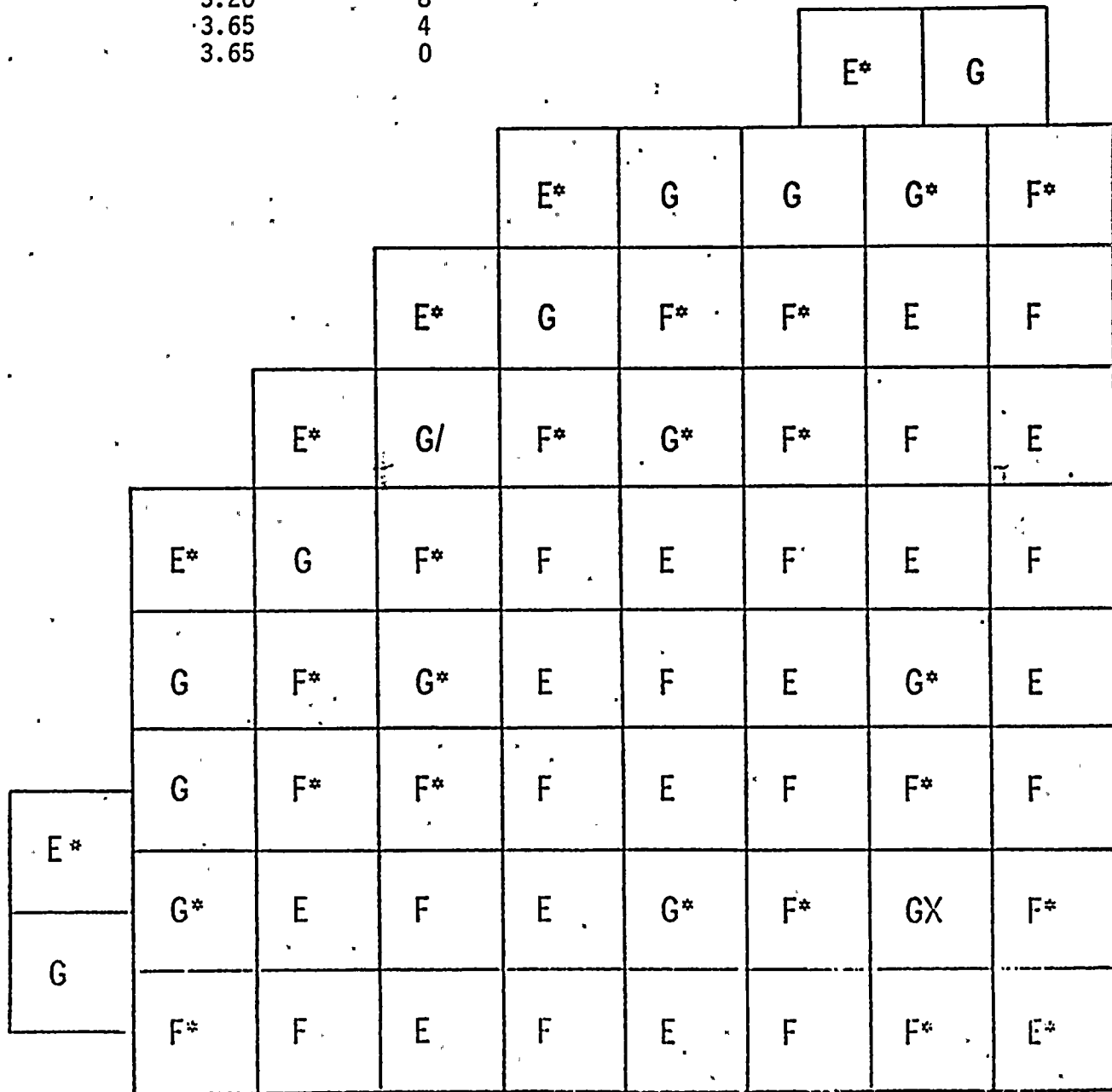


Assembly Designation

Initial Enrichment w/o U-235

Number of Shims

E*	2.73	0
E	3.03	0
F*	3.03	12
F	3.65	0
GX	3.03	8
G*	3.20	8
G/	3.65	4
G	3.65	0



<p>St. Lucie Nuclear Power Station Unit No. 1</p>	<p>CYCLE - 5 LOADING PATTERN</p>	<p>Figure 1</p>
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