

**Florida  
Power**  
CORPORATION

May 2, 1986  
3F0586-05

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Crystal River Unit 3  
Docket No. 50-302  
Operating License No. DPR-72  
**Snubber Optimization Approval Request;  
Proposed License Amendment**

Dear Sir:

Florida Power Corporation (FPC) nears completion of installation of the optimized reactor coolant (RC) snubber arrangement for Crystal River Unit 3 (CR-3) based on the Leak-Before-Break (LBB) concept applied to the primary system of the plant.

Enclosure 1 to this letter references fifteen documents, transmittals, and meetings since the Fall of 1984 related to exemption from the requirements of General Design Criterion 4 and the snubber optimization plan. Enclosures 2, 3, and 4 provide FPC's response to an April 28, 1986 request by the NRC Project Manager for CR-3 and the principal staff reviewer. This request was for additional information beyond that provided for Question 5 of Reference 14 and to formally respond to an additional question. The additional question relates to the effects of pump shaft failure on the associated reactor coolant system piping with the optimized snubber configuration. The information on Question 5 was provided initially in Reference 14. Supplementary information on Question 5 was provided in Reference 15.

Florida Power Corporation submitted a request for License Amendment on April 24, 1986 as a result of the final rule change published April 11, 1986 in the Federal Register which will become effective May 12, 1986.

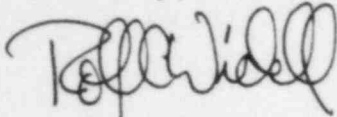
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Florida Power Corporation requests prompt NRC review of this transmittal to assure support of the license amendment approval required prior to startup of CR-3 and return to power operation in early June.

Sincerely,



Rolf O. Widell  
Manager, Nuclear Operations  
Licensing and Fuel Management

RCW/EHD/feb

Enclosures

## ENCLOSURE 1

### List of References

1. B&W Report, BAW 1847, dated October 1984, subject the B&W Owners Group Leak-Before-Break Evaluation of Margins Against Full Break for RCS Primary Piping of B&W Designed NSS.
2. FPC letter to NRC, Westafer to Denton, dated February 1, 1985 (3F0285-02), subject Request for Exemption from a Portion of 10 CFR 50, Appendix A, General Design Criterion 4 (GDC-4).
3. Meeting on August 5, 1985 among NRC, Babcock and Wilcox, and FPC representatives to present FPC plans and define NRC staff needs for information to support the FPC request of Reference 2 above.
4. FPC letter to NRC, Westafer to Denton, dated August 30, 1985 (3F0885-24), subject Re-evaluation of CR-3 Reactor Cooling System Loads Utilizing Leak-Before-Break Concept to Remove Reactor Coolant System Main Loop Pipe Break Protective Devices; transmitted B&W Report prepared for FPC, subject Evaluation of Reactor Coolant System Loads and Component Support Margins Resulting from Optimized Reactor Coolant Pump Support Configuration.
5. FPC letter to NRC, Simpson to Denton dated September 27, 1985 (3F0985-26), subject Transmittal of Report Related to Request for Exemption from a Portion of 10 CFR 50, Appendix A, General Design Criterion 4 (GDC-4); transmitted B&W Report, Document ID 51-1159048-00, prepared for FPC, subject Safety Balance Assessment for Elimination of Reactor Coolant System Main Loop Pipe Break Protective Devices.
6. B&W Report, BAW 1847, Rev. 1, dated October 7, 1985, same subject as in Reference 1; revised report issued to address comments and questions raised by NRC staff reviewers.
7. FPC letter to NRC, Westafer to Denton, dated October 29, 1985 (3F1085-13), subject Transmittal of Report Related to Request for Exemption from a Portion of 10 CFR 50, Appendix A, General Design Criterion 4; transmitted report prepared by FPC, subject Assessment of CR-3 RC Leak Detection System, File: SP 83-133, dated October 25, 1985.
8. Meeting on October 31, 1985 among NRC, B&W, and FPC representatives to discuss partial exemption from GDC-4.
9. NRC summary issued by H. Silver dated November 13, 1985 of the reference (8) meeting.

10. FPC letter to NRC, Westafer to Denton, dated January 13, 1986 (3F0186-12), subject Additional Information Regarding Request for Partial Exemption from General Design Criterion 4.
11. FPC letter to NRC, Westafer to Denton, dated January 16, 1986 (3F0186-18), subject Technical Specification Change Request No. 142; proposes to remove the tabular list of snubbers from the Technical Specifications in accordance with NRC guidance provided in Generic Letter 84-13.
12. FPC letter to NRC, Simpson to Denton, dated January 21, 1986, subject Snubber Optimization Approval Request.
13. Meeting on February 27, 1986 among NRC, FPC, B&W, and Gilbert Commonwealth, Lynchburg, Va., to discuss ten questions raised by NRC.
14. FPC letter to NRC, Westafer to Denton, dated April 2, 1986, subject Snubber Optimization Approval Request, documenting FPC's response to the ten questions of the reference (13) meeting.
15. FPC letter to NRC, Westafer to Denton, Dated April 24, 1986, subject Proposed License Amendment - GDC 4.

ENCLOSURE 2

Response to Eleventh Informal Request by NRC for Additional Information:

Study Performed by Babcock and Wilcox (B&W) for FPC to Determine Effects of Broken Reactor Coolant Pump Shaft on Primary Coolant System Piping of CR-3 Using Optimized RC Pump Support Configuration

B&W Document Identifier 32-1164076-00, B&W Title: RCS Piping Evaluation of Pump Shaft Failure Vibration

(received via telecopy dated Apr. 10, 1986)

NRC QUESTION 11

Crystal River Unit 3

Request for Additional Information

Provide an evaluation of the effects on the RCS piping integrity due to the vibration experienced by the system during the event of a complete break in the shaft of an operating reactor coolant pump, which is being supported by the proposed optimized pump support configuration. Show that, if necessary, adequate margin exists in the piping to accommodate any additional stresses which could result from this loading condition in combination with normal operating conditions.