

**Florida  
Power**  
CORPORATION

August 30, 1985  
3F0885-24

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  
**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**

- Reference:
- 1) Report BAW-1847, The B&W Owners Group Leak-Before-Break Evaluation of Margins Against Full Break for RCS Piping of B&W Designed NSS, September 1984
  - 2) Florida Power Corporation (FPC) letter to NRC, Westafer to Denton, dated February 1, 1985, 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.

Dear Sir:

The Reference 1 report evaluated for the B&W Owners Group the Leak-Before-Break (LBB) concept as applied to B&W designed nuclear steam supply systems. This B&W generic report concluded that a double-ended guillotine break will not occur, and postulated flaws producing detectable leakage exhibit stable growth and, thus, allow a controlled plant shutdown before any potential exists for catastrophic piping failure. The scope of the evaluation included performing structural and fracture mechanics analysis using generic bounding data (loads and materials properties) for all B&W Owners Group plants. FPC was one of the participating B&W Owners Group members and CR-3 was one of the plants bounded by the conclusions of the B&W evaluation.

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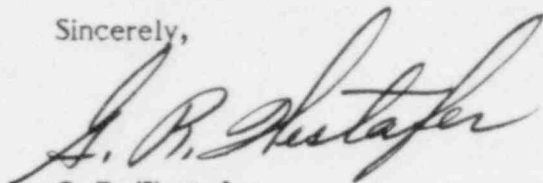
The Reference 2 letter requested an exemption from a portion of the GDC-4 requirements in order to utilize the LBB concept at CR-3 and presents a sequence of actions (tentative dates of reports) which provide additional justifications for the reduction at CR-3 in the number of large bore hydraulic snubbers restraining (unnecessarily) the reactor coolant pumps.

At the Reference 3 meeting, plans and schedules of FPC were discussed as related to procurement decisions which must be made in November 1985 to permit snubber removal during Refuel VI, now scheduled to begin in March 1987. We outlined the planned content of scheduled submissions and requested NRC input as to additional content.

The report attached to this letter is the first to be submitted in the sequence shown in Reference 2, above. The report emphasizes results of the analyses performed by B&W which are specific to CR-3. Attachments to this letter are intended to be responsive to NRC staff needs identified at the Reference 3 meeting and in subsequent discussions by FPC and NRC representatives (Wilson and Bosnak).

We stress the need for informal input from NRC during November 1985 and request that NRC arrange a technical meeting with FPC and B&W representatives during the week of October 21, 1985 to discuss the status of the NRC review and to identify needs for additional information, if required.

Sincerely,



G. R. Westafer  
Manager, Nuclear Operations  
Licensing and Fuel Management

EHD/feb

Enclosures: Report, Evaluation of RCS Loads and Component Support Margins  
Resulting from Optimized RC Pump Support Configuration with  
Appendices A and B.  
Attachment 1.  
Attachment 2.  
Attachment 3.