

**Florida  
Power**  
CORPORATION

February 1, 1985  
3F0285-02

Mr. Harold R. Denton  
Office of Nuclear Reactor Regulation  
Attn: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Crystal River Unit 3  
Docket No. 50-302  
Operating License No. DPR-72  
**REQUEST FOR EXEMPTION FROM A PORTION OF  
10 CFR 50, APPENDIX A, GENERAL DESIGN CRITERIA 4**

Dear Mr. Denton:

Florida Power Corporation (FPC) hereby requests exemption from a portion of certain requirements of General Design Criteria 4 (10 CFR 50, Appendix A) pursuant to the provisions of 10 CFR 50.12(a). As indicated in Generic Letter 84-04, the staff has accepted the utilization of the leak-before-break concept on certain docketed as a means of obviating the need to install certain piping/equipment support systems. The attached Exemption Request utilizes such methodology to support the exclusion of dynamic LOCA loads from the RCS piping, which will allow us to reduce the number of large bore hydraulic snubbers restraining the reactor coolant pumps. Attachment A summarizes this Exemption Request and Attachment B provides the scheduled milestones necessary to support snubber restraint arrangement modifications in Refuel VI. Pursuant to 10 CFR 170, a submittal fee of \$150 is attached.

FPC hereby requests a meeting among NRC, Babcock & Wilcox, and FPC representatives to clearly define NRC staff needs for information to support your approval of this request. Mr. Ken Wilson (904) 795-3802 (Extension 4549) is the FPC contact to arrange such a meeting.

Sincerely,

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

PGH/feb

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*Rec'd witness \$150.00*  
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ATTACHMENT A  
EXEMPTION FROM A PORTION OF 10 CFR 50, APPENDIX A  
GENERAL DESIGN CRITERIA 4

As required by Generic Letter 84-04, Florida Power Corporation (FPC) requests exemption, pursuant to 10 CFR 50.12(a), from a portion of General Design Criteria 4 (GDC-4) for Crystal River Unit 3. Specifically, FPC requests exemption from that portion of GDC-4 which requires protection of the reactor coolant system (RCS) from the dynamic effects (i.e., pipe whipping and discharging fluids) associated with a LOCA involving double-ended rupture of RCS piping.

SCOPE OF REQUEST:

Approval of this exemption will allow FPC to redesign the RCS pump restraint system in order to:

- o Remove several large bore hydraulic snubbers currently restraining the reactor coolant pumps (up to 20 out of a total of 32).
- o Replace other reactor coolant pump large bore snubbers with rigid restraints (4 restraints).
- o Replace remaining reactor coolant pump large bore snubbers with smaller snubbers (8 smaller snubbers).

FPC must remove all large bore snubbers for rebuilding and testing due to service life considerations. Substantial Man Rem and dollar savings will be realized if these large bore snubbers do not have to be reinstalled or can be replaced with rigid restraints or smaller snubbers. These savings will be discussed in more detail in the safety balance value-impact statement that is being prepared for submittal consistent with the attached tentative schedule.

Granting this exemption request would not affect:

- o ECCS design basis.
- o Reactor building and compartment design basis.
- o Equipment Qualification basis.
- o Engineered Safety Feature Systems response.
- o Currently installed pipe whip restraints, jet impingement shields and small bore RCS snubbers.

JUSTIFICATION FOR REQUEST:

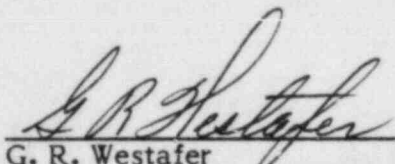
On September 7, 1984, FPC, as a member of the B&W Owners Group, submitted BAW-1847, "Leak-Before-Break Evaluation of Margins Against Full Break for RCS Primary Piping of B&W Designed NSS". This report provides the technical basis for determining that a double-ended guillotine break will not occur and that postulated flaws producing detectable leakage exhibit stable growth. The evaluation includes structural and fracture mechanics analyses using generic bounding data (loads and material properties) for all B&W Owners Group plants. The bounding loads and properties assumed are such that even with removal and/or replacement of the large bore snubbers, Crystal River Unit 3 is still bounded by the Generic Report. Additional justification will appear in the CR-3 plant-specific submittals shown in Attachment B.

ATTACHMENT B  
TENTATIVE SCHEDULE

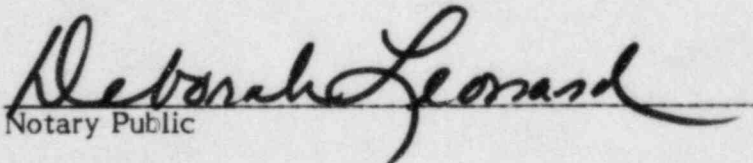
<u>Date of Action</u>	<u>Action Item</u>
June 1, 1985	Crystal River Unit 3 Leak-Before-Break Evaluation of RCS Piping Submittal to NRC
June 1, 1985	Crystal River Unit 3 Safety Balance Value-Impact Statement Submittal to NRC
To Be Determined	RCS Leakage Detection System Capability Evaluation Submittal to NRC
October 1, 1985	NRC Approval of Exemption
July 1986	Technical Specification Change Request Submittal to NRC
October 1986	Refuel VI Begins
October 1986	NRC Approval of Technical Specification Amendment

STATE OF FLORIDA  
COUNTY OF PINELLAS

G. R. Westafer states that he is the Manager, Nuclear Operations Licensing and Fuel Management for Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.

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

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 1st day of February, 1985.

  
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Notary Public

Notary Public, State of Florida at Large,  
My Commission Expires: November 19, 1986