



# Florida Power

CORPORATION  
Crystal River Unit 3  
Docket No. 50-302

December 5, 1990  
3F1290-03

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Subject: ISI Program, Relief Requests Nos. 90-020, 90-050 and 90-060

References: A. NRC Letter - SER on Relief Request No. 220  
B. NRC Letter - SER on Relief Requests Nos. 130 and 140.

Dear Sir:

Pursuant to 10 CFR 50.55a(g)(5), Florida Power Corporation (FPC) is submitting Relief Requests Nos. 90-020, 90-050, and 90-060 for your approval. These relief requests propose alternate examinations to the requirements of ASME Boiler and Pressure Vessel Code, Section XI, 1983 Edition through Summer 1983 Addenda.

Exemption from the ASME Code requirements contained in the attached requests was granted by NRC for Crystal River Unit 3's first 10 year interval (References A and B). This period ended in March, 1987. The requirements identified in the earlier version of the code as impractical are also included in the currently applicable version of the code for the second 10 year period. Therefore, FPC is requesting relief from these requirements for the second 10 year interval ending March 15, 1997.

Sincerely,

P. M. Beard Jr.  
Senior Vice President,  
Nuclear Operations

PMB:LVC

Attachment

cc: Regional Administrator, Region II  
Senior Resident Inspector  
NRR Project Manager

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FLORIDA POWER CORPORATION

INSERVICE INSPECTION  
CRYSTAL RIVER - UNIT 3

RELIEF REQUEST #90-020

REFERENCE CODE: ASME Boiler and Pressure Vessel Code, Section XI, 1983  
Edition through Summer 1983 Addenda.

I. Component for which exemption is requested:

(a) Name and Identification Number:

Core flood piping from CFV-5 thru CFV-1  
Core flood piping from CFV-6 thru CFV-3 (FSAR Figure 6-2)  
Decay heat piping from DHV-6 thru CFV-1  
Decay heat piping from DHV-5 thru CFV-3 (FSAR Figure 9-6 sheet 1)  
Make-up piping from MUV-27 and MUV-24 thru MUV-43 (FSAR Figure 9-2)  
Make-up piping from MUV-23 thru MUV-42  
Make-up piping from MUV-25 thru MUV-36  
Make-up piping from MUV-26 thru MUV-37

(b) Function:

Core flood, decay heat and make-up piping

(c) ASME Section III Code Class:

Class 1 and Class 2 piping

(d) Category:

B-P and C-H.

II. Reference Code Requirement that has been determined to be impractical:

ASME Boiler and Pressure Vessel Code Table IWB 2500-1, & IWC 2500-1 Category B-P Item 15.51 and Category C-H, Item 7.20 Hydrostatic Test and associated visual examination.

III. Basis for Requesting Relief:

Relief is requested from the hydrostatic test and VT-2 visual examination requirement for portions of Core Flood, Make-up, and Decay Heat Systems. The design of piping makes a hydrostatic test of this portion of piping impractical. Hydrostatic test pressure on this portion of piping would exceed allowable pressure on Reactor Coolant System. This relief and alternate test is consistent with the post-repair hydrostatic requirements specified in IWA-5214(d).

IV. Alternate Examination:

A system inservice leak test of that portion of piping from CFV-5 and DHV-6 through CFV-1, From CFV-6 and DHV-5 through CFV-3, from MUV-24 and 27 thru MUV-43, From MUV-23 thru MUV-42, MUV-25 thru MUV-36, and MUV-26 thru MUV-37, will be done in accordance with IWA 5211 (c), following each refuel outage beginning with Refuel VIII.

V. Implementation Schedule:

The alternate examination will be implemented beginning with the Refuel outage presently scheduled 1992.

FLORIDA POWER CORPORATION

INSERVICE INSPECTION  
CRYSTAL RIVER - UNIT 3

RELIEF REQUEST #90-050

REFERENCE CODE: ASME Boiler and Pressure Vessel Code, Section XI, 1983  
Edition through Summer 1983 Addenda.

I. Component for which exemption is requested:

(a) Name and Identification Number:

Reactor Coolant Pump 3A1 (RCP-1A). This pump was selected for the  
original Relief Request #130.  
FSAR Figure 4-7

(b) Function:

Circulates Reactor Coolant

(c) ASME Section III Code Class:

Class 1

(d) Category:

B-L-1, Pressure retaining welds in pump casings and B-L-2, pump  
casings.



II. Reference Code Requirement that has been determined to be impractical:

Volumetric examination of pump casing welds and visual examination of pump casing internal surfaces. The code requires examination of one pump in each group of pumps performing similar functions.

III. Basis for Requesting Relief:

FPC's basis for requesting relief is the same as that shown in the NRC Safety Evaluation dated June 27, 1985 for the original relief request #130. Additionally, FPC has performed all the alternate examinations proposed during the first interval including external surface examinations proposed during the first interval including external surface examination of both casing welds, visual examinations during hydrostatic tests, and visual examination of the pump interior surface and can find no evidence of pump casing degradation.

IV. Alternate Examination:

The reactor coolant pump casing will continue to be visually inspected during the hydrostatic pressure tests required by IWB-5000 and a surface examination will be performed on an additional 25% of both welds during this inspection interval. The required visual inspection of the pumps interior surface will be performed if the pumps are disassembled for maintenance or operational purposes.

V. Implementation Schedule:

The alternate examination will be performed at or near the end of the second ten year interval.

FLORIDA POWER CORPORATION

INSERVICE INSPECTION  
CRYSTAL RIVER - UNIT 3

RELIEF REQUEST #90-060

REFERENCE CODE: ASME Boiler and Pressure Vessel Code, Section XI 1983  
Edition through Summer 1983 Addenda.

I. Component for which exemption is requested:

(a) Name and Identification Number:

Reactor Vessel Support Skirt (FSAR Figure 4-13)

(b) Function:

Supports the Reactor Vessel

(c) ASME Section III Code Class:

Class 1

(d) Category:

F-A, Plate and shell type supports

II. Reference Code Requirement that has been determined to be impractical:

ASME Boiler and Pressure Vessel Code, Section XI, Table IWF-2500-1, Examination Category F-A, Plate and Shell type supports, Item F-1.30 Visual VT-3.

III. Basis for Requesting Relief:

FPC is requesting relief from performing the VT-3 visual examination on 100% of the reactor vessel support. This visual examination would require removal of lead shielding, erection of scaffolding and temporary lighting, removal of insulation, and buffing of the reactor vessel support skirt weld. This preparatory work would be done around the entire circumference of the reactor vessel support skirt interior. Based on actual exposure measurements taken while performing a visual examination of the support skirt during Refuel VI, the expectant radiation dose to all personnel for performing the required VT-3 exam will be greater than 30 person REM. Acceptable visual examinations of 10% of the reactor vessel support skirt welds and studs performed during Refuel VI indicated no degradation and no evidence of boron corrosion or build-up. Consequently, FPC requests relief predicated upon the radiation conditions below the reactor vessel which would result in significant exposure being incurred during performance of the required examination and the acceptable visual exams conducted during Refuel VI.

IV. Alternate Examination:

A visual VT-3 examination will be performed on 10% of the interior of the reactor vessel support at three positions along the length of the support at the same 120° segments examined during the first interval. Considering the location of the incore guide tubes in relation to the vessel support, these three locations are the least restrictive for access to the support. Examinations performed at these locations should adequately reveal the actual condition of the reactor vessel support without subjecting personnel to unnecessary radiation exposure.

V. Implementation Schedule:

The alternate examination will be performed at or near the end of the second ten year interval.