



Florida Power

CORPORATION

Crystal River Unit 3

Docket No. 50-302

December 11, 1995
3F1295-16

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

Subject: Inservice Inspection (ISI) Relief Request 95-055

Dear Sir:

Florida Power Corporation (FPC) is requesting review and approval of the attached Inservice Inspection Relief Request 95-055. This Relief Request requests NRC approval for FPC to use Code Case N-523 for the temporary repair of a flaw in the Crystal River Unit 3 Emergency Feedwater System piping.

Specifically, FPC is requesting the use of Code Case N-523 to install a temporary mechanical clamping device in a section of safety-related, Class 3 piping as a repair for a through-wall leak. The piping provides a recirculation flow path from the emergency feedwater pumps to the dedicated emergency feedwater tank. This piping allows testing of the emergency feedwater pumps and provides a minimum flow path for pump protection during delivery of emergency feedwater to the once-through steam generators should a system actuation occur. FPC has installed a clamping device which meets the design requirements of Code Case N-523 under Temporary Modification T95-12-04-01. This clamp will remain in place until Refuel 10, at which time FPC will return the emergency feedwater system recirculation line to full compliance with applicable design codes. Refuel 10 is currently scheduled to begin on February 29, 1996, however, this could be delayed for up to thirty days.

Sincerely,

G. L. Boldt
Vice President, Nuclear Production

GLB/BG

Attachment

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A Florida Progress Company

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**FLORIDA POWER CORPORATION
INSERVICE INSPECTION
RELIEF REQUEST # 95-055
CRYSTAL RIVER UNIT 3**

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:

1 1/2 inch Emergency Feedwater Recirculation Piping

(b) Function:

The emergency feedwater recirculation piping maintains the pressure boundary of the Emergency Feedwater system and provides a flowpath for flow from Emergency Feedwater Pumps EFP-1 and EFP-2 back to the Emergency Feedwater Tank. The recirculation flowpath is required for system testing and to ensure minimum required recirculation flow of 250 gpm is available during accident conditions.

(c) ASME Section III Code Class:

Class III

(d) Category:

Examination Category C-H, All Pressure Retaining Components

II. Requirement that has been determined to be impractical:

ASME Section XI, subparagraph IWB-3514.2 Allowable Indication Standards for Ferritic Piping, (a) The size of allowable indications shall not exceed the limits specified in Table IWB-3514-1.

Crystal River Unit 3 has a through-wall leak in a section of 1 1/2 inch carbon steel piping in an Emergency Feedwater recirculation line. In accordance with Table IWB-3514-1, this indication has an Aspect Ratio percentage (a/t %) exceeding 14.4, therefore, ASME structural integrity requirements are not satisfied and the component is not satisfactory for continued service.

IWA-4000 provides requirements for the repair of pressure retaining components.

III. Basis for requesting relief:

An ASME Code repair is required to restore the structural integrity of the flawed piping. The location of the flaw in a common recirculation line is such that performance of an ASME Code repair cannot be accomplished without affecting minimum recirculation capability for both trains of the Emergency Feedwater System. Code Case N-523, Mechanical Clamping Devices for Class 2 and 3 Piping, contains guidelines which may be used to control leakage through the pressure boundary and to maintain the structural integrity of Class 2 and 3 piping. FPC is requesting use of Code Case N-523 which has not yet been endorsed for general use via incorporation by reference in Regulatory Guide 1.147 "Inservice Inspection Code Case Acceptability". Allowing FPC the use of this Code Case in lieu of IWA-4000 requirements will enable us to effect an acceptable temporary repair. Other options for repair produce risks that do not exist with the clamp repair. A Code repair would require either removing the Emergency Feedwater safety function for an extended period of time (approximately twenty-four hours) or a shutdown/cooldown of the plant to Mode 5. Shutdowns/Cooldowns produce challenges to the normal feedwater system, hence increasing the potential reliance on the Emergency Feedwater System.

IV. Alternate examination:

In accordance with Code Case N-523, a plan for monitoring defect growth in the area immediately adjacent to the clamping device will be prepared. The area immediately adjacent to the clamping device will be examined using the volumetric method. The examination frequency will not exceed three months, and will be specified in the Repair/Replacement Plan. If the examination reveals defect growth to a size that exceeds the projected size determined by para. 5.1(b) of the Code Case, repair or replacement in accordance with IWA-4000 will be performed. The clamping device will be monitored for leakage at least weekly. Any leakage at any time shall be dispositioned.

V. Implementation schedule:

The Code Case N-523 repair will be made as soon as the clamp is fabricated. A permanent repair in accordance with ASME Section XI will be made during Refuel 10.