

**Florida
Power**
CORPORATION

March 7, 1990
3F0390-08

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

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Pump and Valve Program (1983 Edition)
Relief Request No. V-371

Dear Sir:

By letter dated December 31, 1987, Florida Power Corporation (FPC) submitted an updated Pump and Valve Program as required by the 1983 Edition of ASME Boiler and Pressure Vessel Code, Section XI, Article WA-1400(C). Included in that submittal was Relief Request V-370 which after approval, allowed for alternate inspections on the Chilled Water System in lieu of flow measurements. This relief was sought as a result of a degraded flow element. On October 3, 1989, FPC submitted Revision 9 to the Pump and Valve Program which withdrew V-370 as a replacement flow element has been installed.

Due to low flow conditions in the design of the Chilled Water System and the location and nature of the flow element, hydraulic fluctuation cannot be reduced to be within 2% of the required reading. Therefore, attached is Relief Request V-371. This request proposes alternate acceptance criteria for the requirements of IWP-4150 for fluctuations in the hydraulic instrument readings. Further information will be furnished in Licensee Event Report (LER) 90-003.

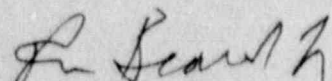
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FPC has provided an advance copy of Relief Request V-371 to your staff on February 15, 1990 for their review. Your timely consideration on this request is greatly appreciated.

Sincerely,



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

PMB:LVC:wla

Attachments

xc: Regional Administrator, Region II
Senior Resident Inspector

FLORIDA POWER CORPORATION
INSERVICE INSPECTION - PUMP AND VALVE PROGRAM
CRYSTAL RIVER UNIT 3

RELIEF REQUEST #
V-371

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Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
 - a) Name and identification number (component tag): CHP-1A and CHP-1B, Chilled Water Pumps.
 - b) Function: To provide cooling water, as a heat sink, to various heat exchangers in the Auxiliary Building, Control Complex, etc., for the purposes of maintaining set temperatures.
 - c) ASME Section III Code Class: 3.
 - d) Valve Category: N/A
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWP-4150; Fluctuations in hydraulic instrument readings are required to be within 2% of the observed reading.
- III. Basis For Requesting Relief: The Chilled Water Pumps in the CR3 Pump and Valve Inservice Testing Program have not had flow measurement requirements imposed on them as allowed by Request for Relief V-370. In V-370, flow measurements were not required to be taken due to a damaged flow element. Request V-370 was withdrawn, as a result of a new element being installed, and flow measurements were subsequently imposed.

The design and operation of the Chilled Water System results in low flow conditions. The element used (CH-659-FE) to measure flow is an annubar type that, under lower flow conditions, typically will indicate hydraulic fluctuations in measurement. This, coupled with the physical location of the element downstream of an elbow produces an indication of hydraulic fluctuation that cannot be reduced to be within 2% of the required reading.
- IV. Alternate Examination: Reduce the fluctuations in the hydraulic instruments as intended by ANSI/ASME OMa-1988, Part 6, paragraph 4.6.1.5 to assure the intent of "steady-state" conditions is met and then average the flow reading. Upon achieving the desired averaged flow reading, which shall be within 2% of the required reading, the remaining pump data will be gathered in accordance with Section XI requirements.
- V. Implementation Schedule: The alternate examination program requirements will be implemented on CHP-1A and CHP-1B immediately upon request approval.