

**Florida
Power**
CORPORATION

October 22, 1982
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Mr. John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Safe End Task Force Action Plan Status

Dear Mr. Stolz:

Since March 1982, Florida Power Corporation has had numerous discussions with the NRC staff concerning cracking in the makeup/high pressure injection (MU/HPI) lines at some operating Babcock and Wilcox (B&W) designed plants. Subsequent to our May 7, 1982 meeting with you, we (as a member of the Safe End Task Force) documented our Action Plan in a letter dated June 2, 1982. This correspondence updates the status of the Action Plan. We provide this information at the request of the NRC staff and speak for Florida Power Corporation only, not for the Safe End Task Force.

The purpose of the Safe End Task Force is to determine the cause of the MU/HPI safe end and thermal sleeve cracking and to make recommendations for implementing a solution to the problem. To accomplish this objective, a three phase approach was pursued (Action Plan depicted in Attachment 1).

Phase 1 of the Action Plan consisted of compiling the facts possibly relevant to the failures, evaluating the data from instrumentation that had been installed at Crystal River Unit 3, determining testing alternatives, and continuing component failure analyses. Additionally, a review of industry experience and an evaluation of the need and feasibility of additional instrumentation on the safe ends and thermal sleeves was conducted. The goal of Phase 1 was to allow a concise evaluation of the facts and develop some possible hypotheses which would account for the facts. This Phase is complete.

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Phase 2 consisted of actual determination of a most likely cause and identification of how this cause is supported by the information available from Phase 1. This Phase then determined to what extent additional analyses or testing was required to conclusively support the most likely identified cause. This Phase is also complete.

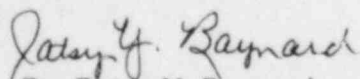
Phase 3 began when the Safe End Task Force concluded that the cause of the failures had been adequately determined, and no further supportive work was required. The result of Phase 3 will be a final statement of the cause, and a recommendation for implementing design and/or operational changes to preclude further failures. As a part of these recommendations, the Task Force will also address the need for additional inservice inspections until the recommended changes are made.

Specifically, in Phase 3, physical contact expansion testing is being conducted to determine the secureness of the thermal sleeve in the safe end. The data should confirm the calculations performed that support the hypothesis for cause of the failures. Furthermore, it will determine the effects wall thinning during expansion and length of the expanded area have on loosening of the thermal sleeve.

An Ultrasonic Testing (UT) examination procedure is being developed to reliably detect simulated flaws. Flaw size, location, and orientation characteristics will be defined and fabricated into a mockup of an MU/HPI nozzle. This technique will be described in a written procedure which will then be qualified for use. This task will provide a high degree of confidence in the integrity of the MU/HPI nozzle UT examination.

A formal report detailing the work performed, the results and conclusions of the work, and the recommendations resulting from the work is being prepared. The Task Force is expected to dissolve upon the publication of the report. Implementation of the recommendations will be on a plant specific basis. These activities are expected to be concluded by December 31, 1982. Florida Power Corporation will submit to you the report and recommended implementation plans on or before January 21, 1983.

Very truly yours,



Dr. Patsy Y. Baynard
Assistant to Vice President
Nuclear Operations

DGM/myf

cc: Mr. J.P. O'Reilly
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SAFE END TASK FORCE ACTION PLAN - REV 02

