

**Florida  
Power**  
CORPORATION

July 16, 1982  
#3F-0782-14  
File: 3-0-26

Mr. John F. Stolz, Chief  
Operating Reactors Branch #4  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Crystal River Unit 3  
Docket No. 50-302  
Operating License No. DPR-72  
NUREG-0737, Item II.B.1  
Reactor Coolant System Vents

Dear Mr. Stolz:

In the partial response by Florida Power Corporation (FPC) on March 9, 1982, of your request for additional information on the above subject dated January 19, 1982, we stated Question 1.a would need further evaluation, and the results of such evaluation would be forwarded to you. Our evaluation is complete, and the results are as follows:

Question 1. In addition to the operating guidelines for the high point vent system provided as part of your response to NUREG-0737 Item II.B.1, provide additional information regarding the following:

- a. Criteria or pertinent information concerning a decision to terminate venting due to containment hydrogen concentration limits or allowable pressurizer level limits (reference NUREG-0737 Item II.B.1 Clarification A.(2)).

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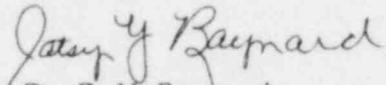
Mr. John F. Stolz  
July 16, 1982  
Page 2

Response 1.a

The reactor coolant system (RCS) hot leg vents are utilized subsequent to an inadequate core cooling incident when cooling has been restored to the core and the RCS is refilling. This will vent steam/air/hydrogen to the containment atmosphere as the RCS is filled with water. The containment hydrogen purge system is designed to maintain the hydrogen concentration in the containment to less than or equal to 3.5 volume percent (FSAR Section 14 Appendix B). In addition, dedicated penetrations are available for installation of external hydrogen recombiners. As the design concentration is not expected to be reached for several days, time exists for recombiners to be installed. It is not anticipated that this design concentration will be reached as the RCS refill takes place in a matter of hours while it takes days to generate 3.5 volume percent of hydrogen in the containment, as shown in the FSAR.

If, however, this concentration was being approached because the hot leg vents were venting hydrogen faster than the containment hydrogen purge was releasing it or the recombiners were recombining it, a decision would need to be made as to closing the hot leg vents until the containment hydrogen concentration was reduced and more hydrogen could be allowed in the containment. During this time, the core would be monitored to ensure that it was being adequately cooled. This process would be continued until natural circulation had been established and the RCS was 20°F subcooled. Once natural circulation had been established, the pressurizer vents would be utilized in a similar manner until the pressurizer level reached the appropriate post-accident level.

Very truly yours,



Dr. P. Y. Baynard  
Assistant to the Vice President  
Nuclear Operations

RMB:mm

cc: Mr. J. P. O'Reilly, Regional Administrator  
Office of Inspection & Enforcement  
U.S. Nuclear Regulatory Commission  
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