Florida Power
CORPORATION

July 28, 1983
3F-0783-25

Director of Nuclear Reactor Regulation
Attention: 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 DPR-72
Generic Letter No. 81-21 - Natural Circulation Cooldown

Dear Sir:

Florida Power Corporation has received your request for additional information dated May 20, 1983, on the above subject. The responses to your questions are given below.

Question 1: Provide a description of your natural circulation cooldown procedure.

Response 1: Abnormal Procedure AP-530, "Natural Circulation," is attached.

Question 2a: Demonstrate, by analysis or otherwise, that use of procedure will not result in upper head voiding.

Response 2a: It can not be demonstrated that the use of this procedure will not result in upper head voiding. If voiding should occur, there is no way to predict whether it will happen in the upper head or in the top of the hot legs.

Question 2b: Demonstrate, by analysis or otherwise, that if voiding occurs, your procedures will prevent voiding in the hot legs, and that if voiding in the hot legs did occur, your procedures provide adequate guidance for managing cooldown with interrupted natural circulation.

A001
1/1

Response 2b: As stated in Response 2a, it cannot be demonstrated that the use of this procedure will not result in voiding in a specific location in the Reactor Coolant System.

If voiding does occur in the hot legs, the procedure provides adequate guidance for managing a cooldown with interrupted natural circulation.

Question 3: Provide an analysis that shows you have sufficient condensate supply to support a conservative estimate of the time to reach the Decay Heat Removal System entry conditions.

Response 3: As discussed in Response 1, the symptom-oriented emergency operating procedures give direction for eliminating any voids should they form. Should the supply of condensate be exhausted prior to reaching the Decay Heat Removal System entry conditions, a symptom will occur which will be handled by another emergency operating procedure, i.e., the loss of cooling will result in loss of subcooling margin which will result in the use of the HPI once through mode of cooling.

Sincerely,

G. R. Westafer

G. R. Westafer
Manager
Nuclear Licensing and Fuel Management

Attachments

Bright(T01)C4-3

cc: Mr. J. P. O'Reilly
Regional Administrator
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street
NW Suite 3100
Atlanta, GA 30303