

**Florida
Power**
CORPORATION

April 18, 1990
3F0490-04

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

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
LOCA Peak Cladding Temperature - 10 CFR 50.46 Report

Dear Sir:

Florida Power Corporation (FPC) has received a copy of the attached letter from B&W Nuclear Service Company (BWNS) to the NRC, dated March 19, 1990. In this letter, BWNS has advised the NRC of a change in the Loss of Coolant Accident (LOCA) limits for peak cladding temperature in 177FA Lowered Loop plants. Crystal River Unit 3 (CR-3) is a 177FA Lowered Loop design. The BWNS letter describes a change in the LOCA peak cladding temperature which is greater than 50 degrees F from the previously calculated value. In accordance with 10 CFR 50.46(a)(3)(i) and 10 CFR 50.46(a)(3)(ii), FPC is notifying the NRC of a "significant" change in the application of the LOCA Evaluation Model to which CR-3 is licensed.

The BWNS letter indicates that an analysis of the 6 foot core elevation at a power level of 2772 Mwt will produce a peak cladding temperature of 2194 degrees F which is within the 10 CFR 50.46 acceptance criteria of 2200 degrees F. However, the revised peak cladding temperature reflects a change of greater than 50 degrees F from that previously calculated; and, therefore, a report in accordance with 10 CFR 50.46(a) is necessary. BWNS has evaluated the impact of this change with respect to 10 CFR 21 and does not consider this increase to be a safety concern because of the reduced power levels at which 177FA plants, such as CR-3, operate. Since Crystal River Unit 3 is licensed to a maximum power level of 2544 Mwt, FPC concurs with the BWNS Part 21 assessment.

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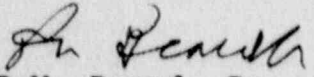
April 18, 1990
3F0490-04
Page 2

The LOCA peak cladding temperature evaluations for the 2, 8, and 10 foot core elevations show that they do not present a concern for increased peak cladding temperature. The 4 foot core elevation is still under evaluation and BWNS expects the results in late April 1990. FPC does not expect the PCT to be a concern because:

1. CR-3 operates at a lower level than that used in the Evaluation Model, and
2. Reactor Protection System (RPS) setpoints are established such that conditions assumed in the LOCA safety analyses are not exceeded in the operation of CR-3.

FPC will advise the NRC within 30 days of receipt of the BWNS Company's evaluation for the 4 foot core elevation if a significant change in peak cladding temperature is identified.

Sincerely,


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

PMB/JWT

Attachment

xc: Regional Administrator, Region II
Senior Resident Inspector