Florida Power
CORPORATION

November 18, 1981
File: 3-B-16
#3F-1181-22

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Generic Letter No. 81-21 - Natural Circulation Cooldown

Dear Mr. Eisenhut:

Generic letter No. 81-21, dated May 1, 1981, requested that Florida Power Corporation complete certain actions within six (6) months of its receipt and that an assessment of these actions be made (including given items), again within six (6) months of its receipt.

Specifically, FPC was requested to implement, as necessary, procedures and training which will enable operators to avoid (if possible), recognize, and properly react to reactor vessel voiding during natural circulation cooldown. Abnormal Procedure AP-113, Reactor Cooldown by Natural Circulation, was revised to give the operator guidance on avoiding and, if unavoidable, on recognizing and properly reacting to Nuclear Steam Supply System voiding. In addition, the procedure was taught during Replacement Operator/Licensed Operator Requalification Training Programs, and the St. Lucie Unit No. 1 event was reviewed by Operations personnel.

Additionally, Florida Power Corporation has assessed our procedures and training program with respect to the St. Lucie, Unit No. 1 event, encompassing the three (3) items included in your letter. The results of the assessment are, respectively:

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1) The revised CR-3 Reactor Cooldown by Natural Circulation procedure was used in the B&W simulator training of the Replacement Operator/Licensed Operator Requalification Training Programs. This training showed that the B&W NSSS could be successfully cooled down on natural circulation without voiding in the NSSS using the CR-3 procedures.

2) During the simulated natural circulation cooldown, there was sufficient condensate-grade auxiliary feedwater to support the cooldown. The CR-3 condensate storage tank contains a minimum of 150,000 gallons of water while only 112,000 gallons is required for a cooldown.

3) The Replacement Operator/Licensed Operator Requalification Training on natural circulation cooldown speaks to the desirability of maintaining a constant cooldown rate for stability of the reactor coolant thermodynamics and so that the operator can more readily recognize voiding in the NSSS if it occurs. The natural circulation cooldown procedure has a specific NOTE addressing NSSS voiding and the steps to mitigate it. This NOTE has the operator isolate letdown flow, stop RCS cooldown, energize pressurizer heaters to stabilize pressurizer level, and, when indications of voiding have ceased, hold the pressure constant for thirty (30) minutes to stabilize temperatures before continuing the cooldown.

If you have any further questions on this subject, please do not hesitate to contact me.

Very truly yours,

William A. Cross

William A. Cross
Manager
Nuclear Licensing

RMB:mm

STATE OF FLORIDA

COUNTY OF PINELLAS

WILLIAM A. CROSS states that he is the Manager, Nuclear Licensing, Nuclear Support Services, of Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.

William A. Cross

William A. Cross

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 18th day of November, 1981.

Margaret A. Chaverne

Notary Public

Notary Public, State of Florida at Large,
My Commission Expires: May 29, 1984