



# Florida Power

Crystal River Unit 3  
Docket No. 50-302

June 22, 1993

3F0693-13

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

Reference: 1) NRC letter to FPC dated May 24, 1993  
Notice of Violation - Inspection Report 93-09

Dear Sir:

Florida Power Corporation (FPC) provides the attached as our response to the subject inspection report.

Sincerely,

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

EEF:mag

Enclosure

xc: Regional Administrator, Region II  
NRR Project Manager  
Senior Resident Inspector

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FLORIDA POWER CORPORATION  
NRC INSPECTION REPORT NO. 50-302/93-09  
REPLY TO A NOTICE OF VIOLATION

VIOLATION 50-302/93-09-01

Technical Specification 6.8.1.a requires the establishment and implementation of written procedures as recommended in Appendix "A" of Regulatory Guide 1.33, November, 1972. Appendix "A" of Regulatory Guide 1.33, November, 1972, includes procedures for operation of safety-related systems.

- (1) Contrary to the above, on March 5, 1993, locally posted procedures for manual operation of the Decay Heat Closed Cycle Cooling Heat Exchanger Outlet Valve (DCV-177) were inadequate in that they contributed to operations personnel improperly attempting to take manual control of the valve. This resulted in a reactor coolant system overcooling transient and damage to the valve operator.
- (2) Contrary to the above, on April 19, 1993, Surveillance Procedure SP-457, Refueling Interval ECCS Response to a Safety Injection Test Signal, was inadequate in that it contributed to operations personnel starting Make-up and Purification Pump 1B without assuring bearing lubrication. This resulted in damage to the pump.

ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

Florida Power Corporation (FPC) accepts the Violation.

REASON FOR THE VIOLATION

- (1) The Reactor Coolant System (RCS) overcooling event was the result of a failure in both the automatic and manual control of Decay Heat Closed Cycle Cooling (DC) flow to Decay Heat (DH) Heat Exchanger 1A (DHHE-1A). The automatic failure was caused by a lack of timely preventive maintenance resulting in debris in the electro-pneumatic transducer controlling DCV-177. The manual failure was caused by improper operation of the valve after unsuccessfully attempting to follow the locally posted instructions.

The locally posted instructions were adequate if the full open position is desirable. When the instructions are followed completely, manual operation will be achieved. However, the initial instruction caused the valve to reposition to full open, an undesirable condition that increased the already excessive cooldown rate.

The manual failure occurred after an unsuccessful attempt to remove, as required by the instructions, a linkage pin connecting the valve positioner to the manual handwheel. This hindrance was probably due to corrosion on the pin. The operator then chose to manually close the valve from the full open position with the actuator attached. While this initially closed the valve, it ultimately overstressed the

stem key which freed the stem from the handwheel and allowed the valve to reopen. Had the linkage pin been capable of removal as required, the action to close the valve would have terminated the overcooling event.

FPC agrees the instructions contributed to the cooldown event by requiring a valve position undesirable under the circumstances.

- (2) FPC believes operator error is the primary cause of starting the Make-up and Purification Pump without bearing lubrication. We do agree that the Surveillance Procedure SP-457 contributed to the event by not including all the instructions necessary. The instructions to assure bearing lubrication should have been contained within the SP itself rather than by reference to another procedure.

#### CORRECTIVE ACTIONS TAKEN AND THE RESULTS ACHIEVED

- (1) The valve has been repaired and returned to automatic control. The locally posted instructions have been replaced with interim instructions for taking manual control of these valves without repositioning. The appropriate procedure has also been revised to include these instructions. A failure analysis has been completed with other corrective actions identified.
- (2) The operator has been counselled concerning the lessons learned and the need for attention to detail.

#### CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

- (1) Preventive maintenance practices will be improved for these components. The sequence of steps for switching from automatic to manual control will be further analyzed to determine the most effective method. Additional training on this method will be provided to operations personnel.
- (2) An Operation Study Book (OSB) entry will be made describing the event and lessons learned. SP-457 will be revised to include the appropriate instructions.

#### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

- (1) A preventive maintenance procedure will be developed or revised to address these concerns by February 1, 1994. The proper sequence of steps will be determined by October 30, 1993. The training will be provided to operations personnel by January 31, 1994.
- (2) The OSB entry will be made by June 30, 1993. The procedure revision will be completed by September 30, 1993.