Yellow Official

APR 0 9 1992

Docket No. 50-302
License No. DPR-72
EA 92-002

Florida Power Corporation
Mr. P. M. Beard, Jr.
Senior Vice President, Nuclear Operations
ATTN: Manager, Nuclear Operations Licensing
Post Office Box 219 - NA-2I
Crystal River, Florida 32629

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY $50,000 (NRC INSPECTION REPORT NO. 50-302/91-25)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted on December 8 - 23, 1991, at the Crystal River Unit 3 facility. The inspection included a review of the facts and circumstances related to the reactor trip and safety injection event that occurred on December 8, 1991, and the subsequent failure to make timely notification to the NRC and State of Florida authorities of that event. The report documenting this inspection was sent to you by letter dated January 6, 1992. An enforcement conference was held on January 13, 1992, in the NRC Region II office to discuss the violations, their cause, and your corrective actions. A summary of the enforcement conference was sent to you by letter dated January 27, 1992.

On December 8, 1991, while increasing reactor power from 10 percent in preparation for phasing the unit to the grid, the operators transferred the auxiliary steam supply to the main steam system. In anticipation of a decrease in reactor coolant system (RCS) temperature from the increased steam flow, control rods were withdrawn twice to increase power and maintain RCS temperature. As power and RCS pressure increased, the pressurizer spray valve RCV-14 opened, but failed to close. However, the main control board valve position indicator showed that RCV-14 was closed. With RCS pressure decreasing due to continued pressurizer spray, the operators made two more power increases to approximately 15 percent of full power without an understanding of the cause of the depressurization.

RCS pressure reached the reactor trip setpoint of 1800 psig approximately 15 minutes after RCS depressurization began and the reactor automatically tripped at 3:09 a.m. RCS pressure decreased to 1650 psig at which time the "ES A and B Not Bypassed" alarms annunciated. The purpose of these alarms is to notify the operators that the automatic actuation of the Engineered Safety Feature Actuation System (ESFAS) for high pressure injection (HPI) may be bypassed to prevent an inadvertent actuation of HPI during a controlled plant

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shutdown and cooldown. Approximately one minute after the alarms annunciated, both ESFAS trains of the automatic actuation of HPI on RCS Pressure Low were inappropriately bypassed. Within approximately six minutes, sufficient actuation logic bistables tripped, as indicated by main control panel alarms, to actuate the ESFAS HPI had it not been bypassed. Twelve seconds later, the operators took the "A" train of HPI actuation out of bypass and it immediately actuated. Four seconds after that, the "B" train was taken out of bypass and it also immediately actuated.

The NRC is particularly concerned about the performance of the control room staff during this event. A critical nonroutine plant evolution was conducted on the midnight shift by a crew that had not trained together. The initial response of the crew to the RCS pressure transient was inadequate in that it did not focus on the symptom (decreasing RCS pressure), but rather the expected results of a power increase. Additionally, inadequate command, control, and communication by that crew resulted in bypassing a critical safety feature while the reactor was in the midst of a transient and before the cause was known and the SRO did not countermand that action in a timely manner. Further, the emergency operating procedures were exited by the operators before they completed all applicable steps. The control room staff also failed to follow procedures that resulted in late notification of the event to the NRC and the State of Florida.

In addition to the control room staff's performance, NRC is also concerned that an erroneous spray valve position indication, caused by inadequate maintenance, and deficiencies in the adequacy of alarm response procedures and implementation of the abnormal operating procedures unnecessarily challenged the ability of the operators to respond to the transient in an acceptable manner.

Violation I in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involves failure to comply with Technical Specification (TS) 3.3.2.1 when both ESFAS instrument channels for HPI actuation were bypassed, thereby rendering the automatic safety system unavailable during the existence of a valid signal. This violation is a serious concern to the NRC because it involves non-conservative actions by NRC licensed plant operations staff.

In accordance with the guidance contained in Supplement I of the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), 10 CFR Part 2, Appendix C (1991), this violation could be categorized at a severity level higher than Severity Level III. However, given the safety significance of this case, specifically, that manual actuation for HPI was available and that adequate subcooling margin was always maintained, this violation has been categorized at Severity Level III.

The Enforcement Policy states that civil penalties are considered for Severity Level III violations. The escalation and mitigation factors set forth in the Enforcement Policy are normally considered in making adjustments to the base civil penalty. These factors would normally result in complete mitigation of the civil penalty based on your comprehensive corrective actions and your good past performance. However, the NRC considers the lack of adequate command, control, and communications on the part of your control room staff that permitted the bypassing of the ESFAS to be especially serious. Therefore, I have been

authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, and the Commission, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of $50,000 for the Severity Level III violation.

Violation II.A in the Notice involves a failure to follow procedures that resulted when operations personnel improperly implemented Abnormal Procedure AP-380, Engineered Safeguards Actuation. A followup action step in that procedure isolates possible causes of RCS pressure decrease. Had the procedure been properly implemented during the event and all applicable actions taken, the pressurizer spray block valve would have been isolated significantly earlier in the transient. The implications of this violation are of particular concern especially in view of three previous nuclear plant examination reports (50-302/OL-89-02, /OL-90-02, and /OL-91-301) which emphasized the apparent generic weakness in the use of procedures by operators. The NRC also notes that the operators failed to refer to the annunciator response procedure that was directly applicable to the decreasing reactor coolant system pressure. Moreover, the NRC is concerned that this procedure would have been of minimal help because it was oriented toward control circuit failures. We understand that you have programs currently underway to improve both emergency operating procedures and annunciator response procedures.

Violation II.B involves the failure of the Emergency Coordinator to promptly initiate an assessment and classification of the December 8, 1991, event as an Unusual Event. The event was not recognized as a condition requiring classification as an Unusual Event until after plant conditions had stabilized. The delay in classifying the proper emergency action level of the event caused required reporting to be untimely to both the NRC and State of Florida authorities. The NRC is concerned because the Shift Supervisor, who was the Emergency Coordinator, relied on his knowledge of the requirements for timely notification rather than checking the procedures.

Violation II.C in the Notice involves the failure to notify the NRC of a valid high pressure injection within one hour as required by 10 CFR 50.72.

Violation II.D in the Notice involves the failure to correct conditions adverse to quality. Repetitive failures of pressurizer spray valve RCV-14 position indication that occurred in June 1990 and July 1991 were not effectively corrected. The missing valve stem anti-rotation key and retaining bolt should have been identified earlier through your maintenance activities in response to previous problems. This condition initiated the transient on December 8, 1991 and contributed to the operators being misled during the transient.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence, including those recommended in your report of January 10, 1992, entitled "Generic Implications of Reactor Trip Events in December 1991." That report addressed a number of recommended corrective actions that included (1) the revision of procedures and operating practices, as necessary, to assure predictable and consistent operation of

systems and plant evolutions, and (2) providing remedial training to the shift on duty during the transient. As these recommendations transcend the corrective actions for the violations described in the Notice, your response should also address any plans to (1) assure that plant management's policies for procedure usage and adherence are established, discussed with, and understood by plant personnel, and (2) provide training to all operating shifts concerning appropriate operator actions and conservative operating practices expected for such transients. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Should you have any questions concerning this letter, please contact us.

Sincerely,

Original Signed By
J. L. Milhoan

Stewart D. Ebneter
Regional Administrator

Enclosure:
Notice of Violation and
Proposed Imposition of Civil Penalty

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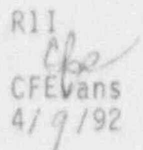
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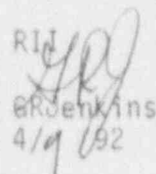
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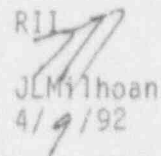
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