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MAY 04 1988

Docket No. 50-302
License No. DPR-72
EA 88-34

Florida Power Corporation
Mr. W. S. Wilgus
Vice President Nuclear Operations
ATTN: Manager, Nuclear Licensing
Post Office Box 219
Crystal River, Florida 32629

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY
(NRC INSPECTION REPORT NO. 50-302/87-41)

This refers to the Nuclear Regulatory Commission (NRC) inspection conducted at the Crystal River Nuclear Plant on November 30 - December 4, 1987. The inspection included a review of the circumstances surrounding diesel generator overload due to failure to take appropriate corrective actions to resolve a design error. The report documenting this inspection was sent to you with a letter dated January 12, 1988. As a result of this inspection, a significant failure to comply with NRC regulatory requirements was identified, and accordingly, NRC concerns relative to the inspection findings were discussed in an Enforcement Conference held on February 22, 1988.

The violation described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) involved a failure to take appropriate corrective action to resolve a deficiency regarding the electrical loads placed on one of two plant emergency diesel generators (EDGs), namely, EDG/A. It appears that this failure was caused by errors made in the interpretation of the EDG vendor's load ratings and in the assessment of equipment electrical loads in incorporating a design change in May 1980, which connected the emergency feedwater pump as an automatic load to EDG/A. This failure resulted in the lack of assurances that the on-site emergency power system would perform its intended safety function for certain worst case accident scenarios for which the system was initially designed. This potential EDG overload condition was identified by Florida Power Corporation (FPC) during an NRC Operational Safety Team Inspection (OSTI) in August 1987. A reevaluation performed by FPC determined that the EDG vendor's ratings had been improperly interpreted and that an incorrect and non-conservative power factor (0.8 vice 0.9) was applied to determine the total loads that were to be carried by the EDGs. At that time the design electrical load was calculated to be as high as 3545 KW under worst case accident scenarios. This calculated load exceeded the EDG vendor's rated performance capability of 2750 KW (continuous operation), 3000 KW (for 2000 hours cumulative operation), and 3300 KW for 30 minutes of cumulative operation).

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The possibility of a deficiency regarding the overloading of EDG/A was originally identified by FPC in May 1980, even using the incorrect power factor of 0.8. To resolve this matter, tests were conducted which incorrectly concluded that the EDGs were not overloaded; however, the tests were in error since they did not represent flow conditions which would be encountered under the worst case accident conditions. Therefore, from May 1980 until October 1987, the plant operated at times with a potentially overloaded EDG. In addition, the OSTI found during its special inspection that surveillance test requirements in the plant Technical Specifications permitted operation of the EDGs in excess of the electrical load rating provided by the EDG vendor. In this regard, correspondence received from the EDG vendor in September 1987, confirmed that the maximum load ratings for EDG/A had been exceeded in the performance of the Technical Specification-required 18-month surveillance tests. This oversight is attributed to FPC's incorrect application of the EDG vendor's ratings.

We recognize that this problem was identified as a result of programmatic review processes initiated as a result of the FPC's Configuration Management Program (CMP). In this particular case, on or about September 14, 1987, FPC received correspondence from the EDG manufacturer which led to the realization that the EDG 30-minute rating had been exceeded during the performance of the EDG 18-month surveillance test. FPC subsequently initiated a reevaluation of the EDG loading which revealed the power factor error. A review of the chronology associated with this problem, particularly the period from June 1987 when a problem related to under-voltage conditions when some loads were transferred to the EDGs and from August 1987 when the first indication of a potential problem was discovered during performance testing to October 1987 when the Technical Specification/Design Basis conflict was reported, suggests a less than aggressive corrective action strategy for resolving a potentially serious problem.

To emphasize the importance of the identification and correction of problems in the area of design and incorporation of design changes into Technical Specifications and procedures, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Operations, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Fifty Thousand Dollars (\$50,000) for the violation described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987) (Enforcement Policy), the violation described in the enclosed Notice has been categorized as a Severity Level III violation. The escalation and mitigation factors in the Enforcement Policy were considered. While we recognize that you identified the EDG problem, you had prior opportunity to identify the problem in June 1987. While you have committed to enhance the CMP, this effort was started at the urgings of the NRC to correct weaknesses in your past performance in design control. For these reasons, no adjustment of the base civil penalty amount has been deemed appropriate.

The CMP represents a positive management commitment to programmatic configuration enhancement; however, weaknesses still exist in your design control process as is evidenced by the EDG issue, which need to be remedied in your planned efforts to improve the effectiveness of the CMP for prompt corrective action in the resolution of design problems. Your intention (discussed at the Enforcement Conference) to keep the NRC briefed on CMP status, to keep the Senior Resident

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Inspector briefed on significant CMP findings, to discuss CMP issues at quarterly management meetings with NRC, and to provide periodic written reports to the NRC staff regarding the CMP strongly supports your commitment.

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. In addition, you should describe what action has been taken, or that you plan to take to determine whether there may be other systems affected by design evaluation errors in need of prompt corrective action. After reviewing your response to this Notice, including your proposed corrective actions, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and its enclosure 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. Nelson Grace

J. Nelson Grace
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:
P. F. McKee, Director, Nuclear
Plant Operations
E. C. Simpson, Director, Nuclear
Site Support

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