



**Florida
Power**
CORPORATION

December 28, 1989
3F1289-18

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

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License DPR-72
Inspection Report 89-24

Dear Sir:

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

Should there be any questions, please contact this office.

Yours very truly,

Gary L. Boldt
Vice President Nuclear Production

WLR:mag

Att.

xc: Regional Administrator, Region II
Senior Resident Inspector

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A Florida Progress Company

FLORIDA POWER CORPORATION
INSPECTION REPORT 89-24
REPLY TO NOTICE OF VIOLATION

VIOLATION 89-24-03

Criterion XVI of Appendix B to 10 CFR Part 50, as implemented by FSAR, Chapter 17, Section 17.1.16 states in part: "Measures shall be established to assure that conditions adverse to quality,....are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition."

Contrary to the above, corrective action for a known problem did not preclude repetition. In January 1988, the test profile run for the "A" Station Battery was found to be invalid. However, on August 31, 1989, the test profile for the station battery "B", was found to be invalid for similar reasons.

In 1985, the load profile for the "A" station battery, indicated that the D.C. main generator hydrogen seal oil pump, TBP-10, sequenced on at 60 minutes. In January of 1988, it was discovered that the D.C. main generator hydrogen seal oil pump, TBP-10, was analyzed to sequence at 0-3 minutes and that the pump would actually start upon loss of offsite power (T=0). Analysis in February of 1988 revealed that the capacity of the battery was not exceeded.

A similar event was identified by the licensee. While reviewing the performance of the "B" station battery and its chargers during the loss of offsite power event of June 16, 1989, discovered that the in use testing load profile was in error. The D.C. main generator hydrogen seal oil pump, TBP-10, for the main generator, could be sequenced on earlier than analyzed in the design calculations. This error resulted in the station battery test being invalid.

This is a Severity Level IV violation (Supplement I).

FLORIDA POWER CORPORATION RESPONSE

Florida Power Corporation (FPC) accepts the violation. The Notice of Violation contains an incorrect reference to TBP-10 for the 1985 and 1988 problem. The correct pump was the D.C. Turbine Emergency Bearing Oil Pump (TBP-3).

APPARENT CAUSE OF VIOLATION

The 1988 problem, concerning a discrepancy in the "A" battery load profile in that an interlock "start" contact would allow starting of the D.C. Turbine Emergency Bearing Oil Pump (TBP-3), was caused by an incorrect assumption used in the original development of the load profile. A review was performed to determine if this interlock problem existed on any other D.C. Pump. A review of elementary wiring diagrams for the remaining DC loads on both A and B trains revealed no interlocks that would invalidate existing load turn-on times.

The 1989 problem, concerning a discrepancy in the "B" battery load profile, was caused by an incorrect analysis assumption for load turn-on times used in the original development of load profiles. Although the circumstances surrounding each event is different, the corrective action did not preclude repetition because FPC did not re-validate the timing sequences and duration of all major loads on both the "A" and "B" trains after the first event in 1988.

CORRECTIVE ACTION

FPC has re-validated the timing sequences and duration of all major loads on both "A" and "B" trains. The battery "B" loads were redistributed to a more balanced condition. The "A" battery loads were already in a balanced condition. TBP-10 was removed from the "B" battery to ensure that the test profile enveloped the installed configuration.

DATE OF FULL COMPLIANCE

Full compliance was achieved prior to start up from an October 1989 outage.

ACTIONS TAKEN TO PREVENT RECURRENCE

Engineering has increased the emphasis for attention to detail and the need for validation of assumptions in the performance of design activities. In addition, employees are receiving root cause analysis training which will improve overall responsiveness to future issues.