



**Florida  
Power**  
CORPORATION

April 7, 1988  
3F0488-02

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 88-01

Dear Sir:

Florida Power Corporation provides the attached response to  
NRC Inspection Report 88-01.

Should there be any questions, please contact this office.

Sincerely,

*Ken Wilson*

K. R. Wilson  
Manager, Nuclear Licensing

WLR:mag

Att.

xc: Dr. J. Nelson Grace  
Regional Administrator, Region II

Mr. T. F. Stetka  
Senior Resident Inspector

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FLORIDA POWER CORPORATION  
RESPONSE  
INSPECTION REPORT 88-01

VIOLATION 88-01-01

- A. Technical Specification (TS) 6.8.1 requires the implementation of written procedures for those activities recommended in Appendix "A" of Regulatory Guide 1.33, November 1972, for test activities of safety related equipment, and for implementation of the fire protection program.

Regulatory Guide 1.33, Appendix "A" Section C.19.(2) recommends procedures for operation of the onsite AC electrical system.

Operating Procedure OP-703, Plant Distribution System, Section 5.6, provides instructions for operating the vital bus transfer switches and inverter manual bypass switches.

Performance Testing Procedure PT-110, Controlling Procedure for Zero power Physics Testing, Section 8.1.04, requires that the low load feedwater valve Integrated Control System (ICS) control stations be in the automatic mode.

Administrative Instruction AI-2205, Administration of CR-3 Fire Brigade Organization, Sections 4.2 and 4.4, requires that the fire brigade team be composed of qualified fire brigade team members.

Contrary to the above:

- a. On December 5, 1987, procedure OP-703 was not utilized during operation of the vital bus transfer switches and inverter manual bypass switches which resulted in improper switch operation and actuation of the Emergency Safeguards (ES) system.
- b. At 7:45 p.m., on January 8, 1988, while approaching initial criticality in accordance with procedure PT-110, the low load feedwater valve ICS control stations were in the manual mode.
- c. During the period of January 19 through January 22, 1988, two plant personnel assigned duty as fire brigade team members were not qualified.

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

RESPONSE

Florida Power Corporation (FPC) accepts the violation. Part "a" of this violation was identified by FPC and has been reported in accordance with 10CFR50.73 as LER 87-28.

Apparent Cause of Violation

- a. The cause of this violation was inadequate operator training on the function of the inverter static transfer switches and manual bypass switches.

- b. The cause of this violation was personnel error. Relieving shift personnel failed to adhere to the procedural conditions prior to continuing PT-110.
- c. The cause of this violation was personnel error. The maintenance supervisor failed to verify the qualification of personnel he was assigning and utilizing.

#### Corrective Action

- a. Following the Engineered Safeguards System actuation, the tripped channels were reset and the plant was returned to its pre-event status. The operators involved in the event have reviewed their actions and are aware that the improper switching sequence resulted in the Engineered Safeguards actuation.
- b. The valves in question were immediately placed into automatic control and all prerequisites of PT-110 were re-verified.
- c. The two individuals were removed from fire brigade duty until they successfully completed fire brigade requalification.

#### Date of Full Compliance

- a. Full compliance was achieved on December 5, 1987, when the tripped channels were reset and the plant was returned to its pre-ES activation status.
- b. Full compliance was achieved upon identification of the non-conformance January 8, 1988.
- c. Full compliance was achieved on January 23, 1988, when qualified fire brigade personnel were assigned to the fire brigade.

#### Actions Taken to Prevent Recurrence

- a. Enhanced training in the function of the inverter status transfer switches and manual bypass switches will be developed and given to all licensed operators. Additionally, a schematic diagram of the vital bus power supplies and switching arrangements will be provided as operator aids in each of the inverter rooms.
- b. Plant operators will be reminded of the importance of conducting thorough turn-overs, particularly when special evolutions are in progress. They will also be reminded that special test procedures may supercede normal operating procedures by placing equipment in conditions that are unusual.
- c. The appropriate supervisor has reviewed the nonconformance and recognizes the importance of pre-assignment verification of member's qualifications.

The Fire Team Leaders have also been directed to ensure, either personally or by delegation, that each assigned member is currently qualified as determined by the current brigade roster.

#### VIOLATION 88-01-03

- B. TS 3.3.3.3 requires that the seismic monitoring instrumentation channels shown in Table 3.3-7 be operable. Table 3.3-7 requires the Triaxial Peak Accelerographs have a measurement range of  $\pm 2.0$  G.

Contrary to the above, since approximately June 1979, the Triaxial Peak Accelerographs have had a measurement range of  $\pm 1.0$  G.

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

#### RESPONSE

Florida Power Corporation (FPC) accepts the violation. This violation was identified by FPC and has been reported in accordance with 10CFR50.73 as LER 87-31.

#### Apparent Cause of Violation

The cause of this event was personnel error. A procedural change was made to the calibration procedure for the accelerographs, calibrating them for a full deflection of  $\pm 1.0$  g. This change was consistent with the range of the equipment installed, but contrary to TS 3.3.3.3.

#### Corrective Action

The accelerographs were sent back to the manufacturer to have the necessary adjustments made to calibrate the detectors for  $\pm 2.0$  g. Since startup from the Refuel VI Outage was rapidly approaching, three new accelerographs were expedited and have been calibrated and installed on the reactor vessel head, the "A" steam generator, and the borated water storage tank.

#### Date of Full Compliance

Full compliance was achieved prior to restart from Refuel VI, with the installation of the new accelerographs.

#### Action Taken to Prevent Recurrence

Florida Power Corporation has incorporated changes into its procedure review process which have significantly reduced the probability of similar events. When a procedure change is made, a printout of the commitments applicable to that procedure must be reviewed by the initiator to ensure the change does not compromise a commitment.

Additional enhancements have been made by Florida Power Corporation to strengthen the Biennial Surveillance Procedure review process. In June 1987, Site Nuclear Engineering Services (department currently responsible for SP-155) implemented a Verification and Validation program. This program provides a structured process utilizing check sheets for reviewing and documenting reviews of procedures. This programmed review specifically includes a check to verify the procedure correctly states the commitment. It also requires that a review be performed to ensure the procedure satisfies the requirements of documents such as Technical Specification and FSAR. If this process had been in place at the time of the biennial reviews performed between June 1979 and December 1987, FPC feels the procedure inadequacy would have been identified earlier. (Per the procedure biennial review schedule the first time SP-155 would have been reviewed under the verification and validation program was October 1988.) There is evidence that the increased emphasis that FPC has placed on procedure adherence and quality/accuracy of procedures reviews is working due to the very discovery of the triaxial peak accelograph ranging problem during a routine procedure review.