



**Florida
Power**
CORPORATION

October 8, 1987
3F1087-09

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 87-17
Revised Response

Dear Sir:

Florida Power Corporation provides the attached revised response to NRC Inspection Report 87-17. This response also contains the additional response requested by Inspection Report 87-26.

Should there be any questions, please contact this office.

Sincerely,

E. C. Simpson, Director
Nuclear Operations Site Support

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
REVISED RESPONSE
INSPECTION REPORT 87-17

VIOLATION 87-17-02

- A. TS 4.8.2.1.2 requires that whenever a transformer is used to supply power at a 120 volt AC vital bus instead of the normal source of power, the transformer shall be demonstrated operable within 24 hours.

Contrary to the above, from 10:43 AM on July 2, 1987, until 5:15 PM on July 3, 1987 (approximately 30.5 hours), a transformer was utilized to supply power to the 120 volt AC Vital Bus 3A, and this transformer was not demonstrated to be operable and functioning properly within 24 hours.

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

RESPONSE

FLORIDA POWER CORPORATION'S POSITION

Florida Power Corporation (FPC) accepts the violation.

APPARENT CAUSE OF VIOLATION

The cause of the violation was personnel error. The individual failed to have the required surveillance performed even though adequate programs were in place.

CORRECTIVE ACTION

The required surveillance was performed.

DATE OF FULL COMPLIANCE

Full compliance was achieved on July 6, 1987 upon satisfactory completion of SP-321, "Power Distribution Breaker Alignment and Power Availability Verification."

ACTION TAKEN TO PREVENT RECURRENCE

The individual involved has been counselled by the Director of Nuclear Plant Operations. All licensed operators will be made aware of this violation and refamiliarized with the administrative document which should have alerted personnel of the need to perform the surveillance.

VIOLATION 87-17-01

- B. TS 5.8.1 requires the establishment and implementation of written procedures for those activities recommended in Appendix "A" of Regulatory Guide 1.33, November 1972, and for surveillance activities of safety-related equipment.

Regulatory Guide 1.33, Appendix A, Section A.3, recommends a procedure for equipment control.

Compliance Procedure CP-115, In-Plant Equipment Clearance and Switching Orders, was written to meet the requirements of Regulatory Guide 1.33 and specifies in step 5.3.6.h that the return-to-normal position of the valve, switch, or breaker after removal of a tag shall be obtained from the applicable procedure.

Surveillance Procedure SP-650, "ASME Code Safety Valves Test," step 8.2.4 requires that the steam system be at a pressure in the range of 885-910 psig for in place testing of Main Steam Safety Valves (MSSV).

Surveillance Procedure SP-333, "Control Rod Exercises," steps 9.1.57 through 9.1.60, provide the steps needed to restore the Control Rod Drive System to the normal configuration.

Contrary to the above:

1. On June 19, 1987, Procedure CP-115 was not implemented in that an equipment clearance directed valve, SWV-14 to be restored to a position contrary to that required by the appropriate system operating procedure. This resulted in the valve being restored to the incorrect position upon removal of the tag.
2. On July 7, 1987, Procedure SP-650 was performed to test a MSSV in place with a steam system pressure of 920 psig.
3. On July 3, 1987, Procedure SP-333 was not implemented in that steps 9.1.57 through 9.1.60 were not performed while restoring the Control Rod Drive System to the normal configuration.

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

In addition to the above examples, Inspection Report 87-19 will identify the following examples to be addressed in this response:

4. On July 16, 1987, due to the failure of the licensee to detect the out-of-spec data during observation or during subsequent supervisory review, the thirty day action statement of T.S. 3.3.3.6 was not entered.
5. On July 22, 1987, an operator used an incorrect value for heat balance power. This error should have been detected during subsequent reviews of the Surveillance SP-312, "Heat Balance Calculations."

RESPONSE

FLORIDA POWER CORPORATION'S POSITION

FPC accepts the violation.

APPARENT CAUSE OF VIOLATION

1. Standard clearances are made for routine evolutions such as cleaning of heat exchangers. The standard clearance used for the evolution was incorrect. Too much reliance was placed on the standard clearance and verification of restoration against the Operating Procedure as required by CP-115, "In-Plant Switching and Tagging" was not performed.

2. The cause was a prerequisite step in Procedure SP-650, which was too restrictive. Step 8.2.4 of SP-650, Rev. 13, restricted normal operating steam pressure between 885 psig and 910 psig.

In this instance the prerequisite was initially complied with, but by the time some of the actual data was taken, steam pressure had drifted outside of the prerequisite limits.

3. FPC agrees that steps 9.1.57 through 9.1.60 of Interim Change for SP-333 were not transmitted with the completed procedure, and therefore, the proper restoration was not evident by review of the transmitted procedure.

SP-333, Control Rod Exercises, was revised to allow guidance for the testing of a safety group (Group 2) with a single failed API (Absolute Position Indicator.) This revision was made to remove the requirement of an individual initialing and dating each performance step. These steps were replaced with a check mark. The supervisor reviewing the completed procedure consulted AI-400, "Plant Quality Assurance Manual Control Document," Section 4.3.6 and believed that all pages of the completed procedure need not be transmitted if data sheets or a check-off list (Enclosure 1 of AI-400 was not involved. The words contained in AI-400 require that attachments to the procedure package for transmittal should include "...the procedure cover sheets, data, check-off lists, etc." The cause of this violation appears to be an incorrect interpretation by the supervisor transmitting the procedure.

4. STS 3.3.3.6 requires that two 0-100% level instruments per steam generator be operable during Modes 1, 2, and 3. Each steam generator is provided with four level instruments (2 EFIC, 2 non-EFIC) that indicate 0-100% and share the same instrumentation taps. Following the SP-300 performance concerned, two instruments were found not to be within the required tolerance. The remaining two were reading satisfactorily. Technical Specifications do not specify which instruments should be used to satisfy STS 3.3.3.6, consequently, FPC feels that the requirements of the specification were met and that entry into the action statement was not warranted.

SP-300 contains many pages of recorded data. The operator taking the log readings failed to recognize and circle the out-of-tolerance reading. Due to the volume of data in SP-300, and the out-of-tolerance data not being circled, the reviewer overlooked the data.

5. FPC agrees that the value for heat balance power on the Group 59 print-out was not used for the calculation required by SP-312. Instead, the operator glanced at the computer screen and recorded a later updated value for heat balance power than what was on the computer printout. This resulted in the inconsistency of the data on Enclosure III of SP-312 and the computer printout. Lack of attention to detail by both the operator and reviewer caused the error to go undetected.

CORRECTIVE ACTION

1. The mispositioned valve was correctly positioned as required by the operating procedure.

2. A Non-Conforming Operations Report and a Field Problem Report were written to identify the non-conformance and determine if the higher steam pressure would have any effect on the proper valve getting.

It was determined that there was no benefit or legal requirement to stating a steam pressure range as long as normal operating steam pressure for the plant's condition was maintained. SP-650, "A.S.M.E. Code Safety Valves Test," has been revised to delete the restrictive range.

3. This violation will be reviewed with Operations personnel responsible for transmitting completed procedures.
4. The out-of-tolerance instrument readings were evaluated and repaired. The individual not circling the out-of-tolerance data was counselled in accordance with plant policies.
5. The operator and supervisor involved will be counselled on the need for increased attention to detail.

DATE OF FULL COMPLIANCE

1. The lineup was corrected on June 25, 1987.
2. Full compliance was achieved upon the resolution of the Field Problem Report and issuance of revised procedure SP-650, July 16, 1987.
3. This review will be completed by September 18, 1987.
4. The instrument was calibrated on August 27, 1987. The individual was counselled on July 25, 1987.
5. The above corrective actions will be completed by September 18, 1987.

ACTION TAKEN TO PREVENT RECURRENCE

1. All pre-made clearance forms for the SW heat exchangers have been rewritten using the specified valve positions in the Operating Procedure. All other pre-made clearances are being reviewed against the applicable procedures. This violation will be discussed with operations personnel to remind them they are required to verify pre-made clearances with the applicable line-up procedures. An enhancement to the current review process for operating procedures will be made to verify that valve line-up changes made to Operation procedures are also made to the standard clearance.
2. The event was reviewed with maintenance shop personnel. The violation will be discussed with the Procedure Adherence Committee in September for awareness of limit and precaution compliance throughout the performance of the procedure.
3. The above corrective actions should be sufficient to prevent recurrence.

4. The above corrective actions should be sufficient to prevent recurrence.
5. The above corrective actions should be sufficient to prevent recurrence.

VIOLATION 87-17-05

- C. TS 4.0.5.b requires the performance of IST of ASME Code Class 1, 2, and 3 pumps and valves in accordance with Section XI of the ASME "Boiler and Pressure Vessel Code" pursuant to the requirements of 10 CFR 50, Section 50.55a(g).

In letters dated June 4, 1982, June 14, 1983, July 1, 1985, and October 22, 1985, the NRC directed the licensee to implement their proposed IST program pursuant to the requirements of 10 CFR 50.55a(g).

Contrary to the above, as of July 9, 1987, the proposed IST program was not properly implemented in that two pumps and thirty valves identified in the program as requiring testing were not being tested.

This is a Severity level IV Violation (Supplement I).

RESPONSE

FLORIDA POWER CORPORATION'S POSITION

Florida Power Corporation accepts the violation.

APPARENT CAUSE OF VIOLATION

It appears that this deficiency has existed in the program since the submittal in 1982 and has been substantiated by our review process updating to the second ten year interval program. The omissions appear to have been caused by an inadequate review of the program commitment for implementation by FPC Procedures.

CORRECTIVE ACTION

An extensive review to determine the extent of FPC's deficiencies for compliance to its submitted program (to meet the 1974 code) is being performed. Upon completion of this review, FPC will take the necessary actions to conform to its submitted program. The appropriate procedures will be updated and the identified pumps and valves will be tested prior to or during start-up from Refuel VI. Allowed changes to the program (those not warranting relief requests) may be made.

DATE OF FULL COMPLIANCE

The identified discrepancies will be tested or otherwise resolved prior to or during start-up from Refuel VI.

ACTION TAKEN TO PREVENT RECURRENCE

The entire Pump and Valve program is being reviewed as a part of updating from the 1974 edition of Section XI to the 1983 edition. Each identified pump and valve will be scrutinized to determine in which procedure it should be included. The program document and the procedures will be reviewed to assure they are in agreement. This will be done as a separate evolution to the update revision now in progress.

The Pump and Valve Program has also been developed into a computerized data base. Under this system, errors of this type will become obvious and can be prevented. In addition, every valve in the ASME Class 1, 2, & 3 boundaries is being checked for code category confirmation or recategorization in accordance with the requirements of the 1983 edition of ASME Section XI.

VIOLATION 87-17-06

- D. TS 6.8.2.b requires procedures for surveillance and test activities and changes thereto be reviewed and approved by an interdepartmental qualified reviewer and an interdisciplinary qualified reviewer in interfacing departments prior to implementation. This TS also requires that the Plant Review Committee (PRC) review the 10 CFR 50.59 evaluation within 14 days of approval.

ISI activity procedures are listed as a surveillance and test activity under TS 4.0.5.b.

Contrary to the above, as of July 9, 1987, procedures used to conduct the 1980 Outage #3 ISI program, the 1983 Outage #5 ISI program, and change to the 1985 Outage #6 ISI program were not reviewed and approved prior to implementation as required by TS 6.8.2.b. In addition, the 10 CFR 50.59 evaluation reviews were not performed by the PRC.

Additional finding from Inspection Report 87-26:

The Technical Manual (including ISI non-destructive examination conducted in the 1978 and 1979 outages did not receive the review and approval required by TS 6.8.2.b.

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

RESPONSE

FLORIDA POWER CORPORATION'S POSITION

Florida Power Corporation accepts the violation. A Technical Specification Interpretation (TSI) is being developed to document FPC's position on the required scope of such a review. These TSIs are reviewed by the NRC resident inspector prior to issuance.

APPARENT CAUSE OF VIOLATION

FPC had not previously considered the Technical Manual as a document within the scope of Technical Specification 6.8.1, therefore, the reviews of TS 6.8.2. were not applied.

The Change Authorization, CR-85-026, identified in the inspection report, appears to have been one of many changes made by the vendor. Failure to obtain required FPC review appears to be an isolated incident.

CORRECTIVE ACTION

The vendor "Change Authorization" that was inadvertently omitted from the review cycle in 1985 has been submitted for review by PRC. It was reviewed and approved at the PRC meeting held on August 18, 1987.

DATE OF FULL COMPLIANCE

Maintenance of Test and Inspection procedures for ISI and IST are now reviewed and approved in accordance with TS 6.8.2.

ACTIONS TAKEN TO PREVENT RECURRENCE

Following the 1985 Refueling outages, discussions were held with the vendor about the number of Change Authorizations (CA) that were necessary. During these discussions FPC stated that earlier and more thorough manual preparation would be needed in the future. The reduction in the number of CAs during Refuel VI outage will decrease the opportunity for this type of administrative oversight to occur.

A change in Technical Specification interpretation will preclude recurrence of this programmatic deficiency.

In addition to the above, AI-701 "Conduct of Inservice Inspection" will be revised by sectionalizing each ISI area to better define the ISI Program. Responsibility of personnel, interfacing and program controls will be defined in the revised procedure.

VIOLATION 87-17-07

- E. TS 6.10.2.h requires records of ISI performed pursuant to the TS be retained for the duration of the Facility Operating License.

Contrary to the above, as of July 8, 1987, records delineating hydrostatic testing boundaries for ISI tests performed in the 1980 Outage #3 and the 1983 Outage #5 were not retained. As a result, the adequacy of four hydrostatic tests performed in the 1980 Outage #3 could not be determined. (Finding 1)

Additional findings from Inspection Report 87-26:

Finding 2: Records do not indicate valve DHV-91 was open (Valve position "NA") part of hydro boundary could have been excluded if this valve was closed. Adequacy of hydrostatic test uncertain.

- Finding 3: Instrument lines between valves BSV-46 and BSV-47, records do not indicate position of valves. Adequacy of hydrostatic test uncertain.
- Finding 4: Records for ASME Class 3 piping do not indicate position of in-line valves. Position of pump, gages, and recorded leaks do not preclude portions of the system from being isolated to hydro pressure. Adequacy of test uncertain.
- Finding 5: Records for service water Class 3 piping do not indicate position of in-line valves. Position of pump, gages, and recorded leaks do not preclude portions of the system from being isolated to hydro pressure. Adequacy of test uncertain.
- Finding 6: Position of in-line valves BSV-99 and BSV-100 were not identified. Adequacy of test cannot be verified.
- Finding 7: Position of in-line valves were not identified. Position of pump, gages, and record leaks do not preclude portions of system from being isolated from test. Adequacy of test uncertain.
- Finding 8: Enclosure 2, sheet 1 to SP-210, "Data and Approval Sheet" Item 4 entry for hydro pump attachment location have been marked through, signed and dated. However, no new entry was made (records complete).

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

RESPONSE

FLORIDA POWER CORPORATION'S POSITION

Florida Power Corporation accepts the violation.

APPARENT CAUSE OF VIOLATION

There exists at Crystal River Unit 3 a generic problem with hydrotest boundary documentation as required by MP-137, System Hydrostatic Pressure Testing. A review of hydros related to MAR packages has revealed the same deficiency in documentation. As a result of these findings an in-depth review of all safety-related hydrotests is being performed.

The available information indicates that the records are missing due to the procedural requirement of attaching marked-up drawings to the procedure for transmittal to quality files.

CORRECTIVE ACTION

1. A review of all 1980 and 1983 hydros revealed that of the 31 tests performed in those two years, four were cited as having insufficient records and therefore no credit can be taken for the performance of these tests. The four tests noted in the citation, all occurred in 1980. The tests are:
 - a. BS System, BS Pump 1B Discharge Piping;
 - b. Nuclear Services Closed Cycle Cooling (SW) System, SW lines to Air Handling Heat Exchanger (AHHE) 31 and 32B (penetration 370 and 371);
 - c. SW System, SW to Reactor Coolant Pump (RCP) 1C Bearing and Seal Cooler (penetration 325 and 326); and,
 - d. SW System, SW to RCP-1B Bearing and Seal Cooler (penetration 364 and 365).

Two of these items (b and d) were reperformed in 1985 and sufficiently documented.

The building spray pump 1B test has been justified by an engineering analysis of the suction pipe overpressurization. The building spray test cannot be proven to stop at the pump discharge flange, even though circumstantial evidence suggests that it did. However, the test only takes credit for the pressure boundary in the discharge, so the questions of the suction pipe is only relevant so far as demonstrating that it was not overpressurized.

The SW pipe to RCP-1C will be repeated in Refuel VI.

2. The segment of pipe between DHV-91 and RCV-53 does not require a hydrostatic test, per ASME Section XI, 1980 Edition and Engineering Question EQ-87-1370.
3. This item is still being reviewed.
4. Based on an indepth review of this test, portions of the SW System will be retested during Refuel VI under the following work requests: 88094, 88095, 94355 - 94357, 93739, 95208, 95209, 95211 - 95215, 95391 - 95397.
5. The portion of this system that cannot be verified will be tested during Refuel VI under work request #93732.
6. Based on an in-depth review of this test, sufficient evidence exists to indicate the position of BSV-99 and BSV-100 as being open. No retest is required.
7. Based on an in-depth review of this test, sufficient evidence exists for the proper valves positions, and the piping effected has been properly identified. No retest is required.
8. Based on an in-depth review of this test, although the identification of "hydro pump" attachment is not clear (a nitrogen bottle was used), sufficient evidence exists to indicate that the entire test was performed satisfactorily. No retest is required.

DATE OF FULL COMPLIANCE

Full compliance will be achieved prior to implementation of the second ten-year ISI Program.

ACTIONS TAKEN TO PREVENT RECURRENCE

In 1985 extensive changes were implemented in the method of documenting the hydro testing. This occurred when the ISI Section promulgated and issued procedure SP-210 for the ISI hydros. This revision should prevent future documentation problems.

These same changes in documentation requirements have been implemented into MP-133, System Pneumatic Pressure Testing and MP-137, System Hydrostatic Pressure Testing.

In addition to the above, an independent in-depth programmatic review of all safety-related hydrotests is being performed by a contract organization. FPC is also documenting, through its Nonconforming Operations Reports (NCOR) other nonconformances as they are identified by the contract team. To date, LER 87-18 has been submitted as a result of this evaluation.

A review of hydros associated with plant modifications (MARs) and work requests is in progress and will be completed by December 1, 1987.

SUPPLEMENTAL INFORMATION

The following are additional code violations identified as a result of this extensive review:

1. In 1980, hydros were performed that did not comply with the 1974 edition of Section XI as required by Technical Specifications and Title 10 of the Code of Federal Regulations. The deficiencies included violation of the pressure hold time requirement and test temperature. These were generic deficiencies in the program.

There were additional specific failures to properly document test boundaries and application of incorrect test pressure.

2. In 1983, a relief request was submitted to perform hydros in accordance with the 1977 edition of Section XI. The relief request was implemented prior to its approval in violation of Technical Specifications.

These were again specific failures in boundary documentation and test pressures.

3. A standard operating procedure for the 1985 Refuel V outage led to some tests having valves within the test boundary to be in test position but undocumented. The 1985 hydros were controlled by Safety Clearances. Due to ALARA concerns, valves within the test boundary that were not moved from their "normal" position were not tagged. The position of each was verified by the test supervisor during the set-up for the test, but was not a specific sign-off step. Thus, the position of some valves in the main process lines is not documented.

Upon conclusion of the contractor's review, those hydros determined not to have sufficient evidence of being properly performed will be re-hydroed.