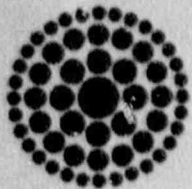


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**Florida
Power**
CORPORATION

October 17, 1989
3F1089-08

Mr. James M. Taylor, Director
Office of Enforcement
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Notice of Violation and Proposed Imposition of Civil Penalty
NRC Inspection Report 89-09
Enforcement Action EA 89-118

Dear Sir:

As discussed in a conversation with Region II on October 13, 1989, the
submission of Florida Power Corporation's (FPC) response to the subject
Inspection Report was extended until October 17, 1989. Please find
attached FPC's response to Inspection Report 89-09. In accordance with 10
CFR 2.205, Florida Power Corporation (FPC) provides Attachment I to this
letter as our response to the Proposed Imposition of Civil Penalty dated
September 13, 1989. In accordance with 10 CFR 2.201, FPC provides
Attachment II to this letter as our response to the Notice of Violation.

We would be pleased to meet with you and your staff to discuss the issues
should you believe this would enhance communications on this or related
issues.

Yours very truly,

W. S. Wilgus
Vice President, Nuclear Operations

WLR:mag

Atts.

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xc: Regional Administrator, Region II

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ATTACHMENT I
FLORIDA POWER CORPORATION ENFORCEMENT ACTION EA 89-118
NRC INSPECTION REPORT NO. 50-302/89-09

ANSWER TO NOTICE OF VIOLATION

Florida Power Corporation (FPC) provides the following in response to Enforcement Action EA 89-118. This response is provided in accordance with 10 CFR 2.205. In this response, it is FPC's intention to demonstrate that the escalation of the proposed civil penalty is unwarranted.

The NRC reasoning for imposing and escalating the base civil penalty by 100% is apparently based on the belief that FPC failed to implement a comprehensive EQ program in 1985. The discrepancies identified during the 1988 and 1989 inspections were considered indicative of a program that has been deficient since its inception. This conclusion is apparently based on three primary factors. The first is the scope and results of the NRC's inspection activities which are summarized below. The second is the evolution of EQ expectations by the staff. No new requirements have been imposed since the promulgation of 10 CFR 50.49. However, expectations have risen as have implicit requirements transmitted by Information Notices, Inspections at other facilities, etc. Therefore, an adequate program meeting all the rule's requirements in 1985 would likely be viewed as inadequate today. The third factor may be the apparent consideration of our extensive corrective actions to be an admission of major programmatic breakdowns. The depth and extensiveness of our corrective action plan is due to the evolution of regulatory expectations and the belief that it is more effective from a resource and regulatory viewpoint to re-review the whole program rather than correct each minor problem as identified.

The EQ program put in place by FPC in 1985 was the subject of a pilot inspection by the NRC in March of that year (50-302/85-09). That inspection identified areas that needed to be completed to establish the foundation of an effective EQ Program. Following the inspection, FPC started an extended outage. Many of the activities during that outage were associated with equipment replacement to achieve compliance with 10 CFR 50.49. In parallel with these modifications, FPC was developing the programs to assure continued compliance with 50.49 following completion of the outage. FPC did perform independent assessments of our EQ program prior to restart from the 1985 outage to assure resolution of all the NRC concerns. The next inspection was a follow-up to minor FPC identified EQ discrepancies. The 1989 inspection was a follow-up to the 1985 inspection to inspect installations in the containment. These inspections were focused on specific issues and not an integrated appraisal of FPC's EQ program. The NRC has not provided an adequate basis to conclude

that FPC's program had significant deficiencies following conclusion of the 1985 refueling outage.

FPC has implemented an EQ program which has effectively kept equipment in the plant properly qualified. The EQ deficiencies identified by the two most recent inspections are not programmatic deficiencies warranting a \$100,000 civil penalty. Seven of the thirteen issues identified in the two inspections were identified by FPC through the continuing EQ program activities and through periodic "re-reviews", which were undertaken specifically for that purpose. Further, most of the items were qualifiable as found.

FPC would propose the following as an appropriate consideration of the mitigation factors provided for in the Enforcement Policy.

A. Prompt Identification and Reporting

As noted earlier, the majority of the issues identified in the notice were identified by FPC and properly reported. These include the initial items which prompted the NRC follow-up inspection and subsequent issues discovered during corrective activities.

B. Corrective Action to Prevent Recurrence

Our initial corrective actions involved significant efforts beyond the NRC identified deficiencies. FPC's EQ Enhancement Plan, which will be detailed under separate cover, is quite extensive and goes well beyond correcting known problems. The associated walkdowns are well underway and the Program's schedule was, and remains, quite aggressive.

C. Past Performance

Contrary to the information provided with the notice, FPC has no adverse past performance in the EQ area. The 1985 pilot inspection assessed the program as it was being developed and concluded the elements were underway to establish an effective program. The two subsequent inspections (1988 and 1989) and associated LERs are the subject of this notice of violation.

D. Prior Notice of Similar Events

The information provided with the Notice of Violation states that prior notification was available to have prompted our program to identify and correct these deficiencies. Although certain items (e.g., T-drains and Grease Reliefs) had specific prior notification, others were minor discrepancies in our program to handle EQ information, for which prior notification is not applicable. In addition, several of the items were site specific and no prior notice exists.

E. Multiple Occurrences

The notice addresses multiple examples of generally isolated and minor EQ discrepancies of limited safety significance.

In summary, FPC believes significant mitigation is a more appropriate result of application of the policy's criteria. FPC considers escalation to be unwarranted.

ATTACHMENT II
FLORIDA POWER CORPORATION
INSPECTION REPORT 89-09
REPLY TO NOTICE OF VIOLATION

A. 10 CFR 50.49(a) requires each holder of a license for operation of a nuclear power plant to establish a program for qualifying electric equipment identified in 10 CFR 50.49(b).

10 CFR 50.49(b) defines equipment important to safety and includes:

- (1) Safety-related electric equipment, i.e., equipment relied upon to remain functional during and following design basis events.
- (2) Certain post-accident monitoring equipment.

10 CFR 50.49(d) requires the licensee to prepare a list of electric equipment important to safety covered by this section.

10 CFR 50.49(j) requires that a record of qualification for the electric equipment important to safety, as identified on the Master List, be maintained in an auditable form for the entire period during which the covered item is installed in the nuclear power plant.

Contrary to the above, from November 30, 1985 the licensee failed to comply with the above EQ requirements as evidenced by the following violations:

1. VIOLATION 89-09-01

On December 9, 1988 it was discovered that certain safety-related motor control centers in the Auxiliary Building had not been demonstrated to be qualified for the environmental conditions resulting from a postulated auxiliary steam line crack.

FLORIDA POWER CORPORATION (FPC) RESPONSE

Florida Power Corporation accepts the violation with clarification that it is only loosely connected to other EQ concerns and is more properly understood as a part of FPC's self-identified HELB deficiencies. This violation was reported in accordance with 10 CFR 50.73 as LER 88-27.

APPARENT CAUSE OF VIOLATION

The event was caused by failure to recognize the type of line failure postulated by FPC's High Energy Line Break (HELB) criteria. FPC had previously installed a design modification to the Auxiliary Steam line that was intended to isolate the system upon detection

of a line break. This modification eliminated the need to qualify Auxiliary Building components for a harsh environment. However, it was later determined that significant leakage could occur by a pipe crack and create a harsh environment. It was further determined that although the earlier modification was effective for a pipe break, it was ineffective in isolating the line during a crack.

CORRECTIVE ACTIONS

The subject line was promptly confirmed as isolated and will not be used until alternate resolution of all HELB concerns, including EQ, are employed.

DATE OF FULL COMPLIANCE

Full compliance was achieved on October 28, 1988 when the subject line was confirmed closed.

ACTIONS TAKEN TO PREVENT RECURRENCE

FPC's implementation of the revised High Energy Line Break criteria will resolve this deficiency.

2. VIOLATION 89-09-02

On December 16, 1988 it was identified that valve motor operators FWV-14 and 15 and WDV-406 contained tape splices and the licensee could not demonstrate qualification for the valve motor operators in that the licensee did not have a record of qualification for the tape splices.

FPC'S RESPONSE

FPC accepts the violation. This violation was reported in accordance with 10 CFR 50.73 as LER 88-28.

APPARENT CAUSE OF VIOLATION

The cause of this event is a deficiency in the EQ upgrade program methodology. The EQ upgrade program addressed terminations located at motor operated valves (MOV) in conjunction with other qualification-related modifications required for the MOV. The MOVs at issue did not require any qualification-related modifications; therefore, the associated splices were not reviewed for adequacy.

CORRECTIVE ACTION

As noted above, the FWV-14 and 15 and WDV-406 termination were conservatively replaced with qualified Raychem Splices. A walkdown was also performed to identify additional similar problems in the turbine building. No similar problems were found.

DATE OF FULL COMPLIANCE

Full compliance was achieved on December 30, 1988 when the valve terminations were replaced with qualified Raychem Splices.

ACTIONS TAKEN TO PREVENT RECURRENCE

FPC has developed a long-term EQ enhancement program. The enhancement program (to be submitted under separate cover) will address the following CR-3 areas for EQ implications: organization, procedures, field verification, documentation, environmental profiles, EQ Master List and training. The training program should make personnel more aware of the potential effects of environment changes to the qualification of equipment. FPC's long term EQ enhancement program and future personnel training efforts should be adequate to prevent recurrence.

3. VIOLATION 89-09-04

As of April 24, 1989 the licensee did not have a record of qualification for Kerite tape splices such as the one used in electrical penetration EPA-412.

FPC'S RESPONSE

FPC acknowledges that the Kerite tape configuration was not included in the active EQ file. However there were available test reports for tape splices of this type that were archived at the time of the inspection. The as-found taped configuration was qualifiable based on information contained in the archived file.

APPARENT CAUSE OF VIOLATION

The cause of the deficiency appears to be misinterpretation of the configuration. Specifically, the reviewer did not believe that the splice required qualification and accordingly, archived the associated test report. This is considered an isolated error.

CORRECTIVE ACTION

The Kerite splice test report was promptly reviewed and found acceptable to establish qualification. The individual involved in the decision to remove the splice from the EQ Master List was counselled regarding proper interpretation of test reports and vendor qualification information.

DATE OF FULL COMPLIANCE

Full compliance was achieved on June 12, 1989 when the qualification of the Kerite tape splices was documented and placed in the active EQ files.

ACTIONS TAKEN TO PREVENT RECURRENCE

The above corrective actions and the EQ Enhancement Program should be sufficient to prevent recurrence.

4. VIOLATION 89-09-05

As of April 24, 1989 three GEMS containment Sump Level transmitters (WD 303-LT-A&B and WD 302-LT-B) were found to be in a configuration other than the tested configuration in that the associated junction boxes were not filled with silicone oil. The licensee did not have analysis to demonstrate the acceptability of the installed condition.

FPC's RESPONSE

FPC accepts the violation.

APPARENT CAUSE OF VIOLATION

The vendor technical manual did not contain any requirement associated with oil maintenance, and this particular configuration characteristic was not identified during the review of the Wyle Lab test report. Further, there was no real expectation that the fluid level would change.

CORRECTIVE ACTIONS

Silicon fluid was promptly added to the GEMS transmitter termination boxes even though they were qualified as-found. The termination boxes are not submerged during the design basis accidents for which they are required.

DATE OF FULL COMPLIANCE

Full compliance was achieved on May 25, 1989 when silicon fluid was added to the GEMS transmitter termination boxes.

ACTIONS TAKEN TO PREVENT RECURRENCE

Surveillance Procedure SP-175, Containment Sump Level and Flood Monitoring System Calibration, was revised to provide direction to check the oil level of the specified junction boxes on the EQ level transmitters. FPC will ensure that conditions specified in test reports are addressed in procedures as appropriate.

4. VIOLATION 89-09-07

The record of qualification for certain ASCO solenoid valves such as those used in the Main Steam Isolation Valves was deficient in that it did not adequately support a 40-year qualified life for the solenoid valves when considering the effects of elevated localized temperatures from the hot process piping.

FPC'S RESPONSE

FPC accepts the violation. However, during the period the valves have been installed, they have always been qualified.

APPARENT CAUSE OF VIOLATION

The individual responsible for the evaluation failed to perform the appropriate calculations to support the qualified life for the solenoid valves.

CORRECTIVE ACTIONS

FPC promptly established a new qualified life for the ASCO solenoid valves of eight years at a 140 degrees F ambient temperature. The EQ file was updated to reflect the new qualified life values. The responsibilities for Equipment Qualification have been reassigned to different individuals.

DATE OF FULL COMPLIANCE

Full compliance was achieved on June 14, 1989 when the ASCO solenoid valves files were updated to reflect the new eight year life.

ACTIONS TAKEN TO PREVENT RECURRENCE

Actual temperatures were monitored during July and August 1989. The field measurements taken during July and August 1989 are bounded by the 140 degree F use to establish qualified life. The field data is being added to the EQ file. A new longer qualified life may be calculated as part of the enhancement program. The solenoid valves in service are qualified. New valves will also be installed during Refuel VII.

6. VIOLATION 39-09-03

Electrical penetration EPA-128, which contains the cables for required post accident monitoring temperature elements AH-536, 537, 538 and 539-TE, was not on the master list of electric equipment important to safety.

FPC RESPONSE

FPC accepts the violation.

APPARENT CAUSE OF VIOLATION

An error resulted in the omission of the penetration from the Master List.

CORRECTIVE ACTIONS

The subject penetration was promptly added to the EQ Master List.

DATE OF FULL COMPLIANCE

Full compliance was achieved on May 18, 1989 when EPA-128 was added to the EQ Master List.

ACTIONS TAKEN TO PREVENT RECURRENCE

FPC had initiated and has now incorporated into its EQ enhancement program a review of all Regulatory Guide 1.97 items to ensure that additional items were not omitted. The training program will also minimize the likelihood that similar omissions will occur.

7. VIOLATION 89-09-06

The four limitorque valve motor operators associated with valves RCV-11, CAV 1, 3, and 4, respectively were installed inside containment without functioning T-drains and grease reliefs. Qualification of these operators was based upon a tested configuration which included functioning T-drains and grease reliefs; however, the licensee did not have analysis to demonstrate the acceptability of the installed configurations.

FPC RESPONSE

FPC accepts the violation in that the motor operated valves had shipping caps in place and T-drains were either missing or painted over. This violation was reported in accordance with 10 CFR 50.73 as LER 89-16.

APPARENT CAUSE OF VIOLATION

The failure to remove grease relief caps was due to a post-installation oversight. The failure to install T-drains was due to FPC's reliance on Limitorque regarding the acceptability of installed configurations and not performing an independent analysis or review of actual configurations. Detailed instructions were not sufficient to emphasize the importance of not painting the T-drain holes.

CORRECTIVE ACTIONS

All EQ valves inside containment were inspected during the reactor coolant pump maintenance outage (February 1989) and any deficiencies promptly corrected prior to restart.

DATE OF FULL COMPLIANCE

Full compliance was achieved on June 1, 1989, prior to startup from the Reactor Coolant Pump outage.

ACTIONS TAKEN TO PREVENT RECURRENCE

Training has been developed to emphasize the importance of not defeating EQ-related functions of components through other maintenance activities (painting). The Limitorque Maintenance procedure has been revised to address T-Drains and Grease Reliefs.

8. VIOLATION 89-09-10

Weidmuller terminal blocks were not properly qualified for use inside containment in that the qualification documentation did not contain insulation resistance values taken during the accident profile testing and did not contain analysis to demonstrate the acceptability of the installation of these terminal blocks in junction boxes, which differed from those tested, in that the installed boxes had no weep holes.

FPC RESPONSE

FPC accepts the configuration aspects of the violation. FPC was previously cited on October 13, 1988 by violation 88-27-01 for the IR Drop issue.

APPARENT CAUSE OF VIOLATION

Lack of training caused the inadequate comparison of the as-installed configuration to the qualified test configuration.

CORRECTIVE ACTIONS

Weep holes were promptly installed in the terminal boxes containing the Weidmuller terminal blocks.

DATE OF FULL COMPLIANCE

Full compliance will be achieved prior to the end of FPC's next Refuel, which should be completed by the second quarter of 1990.

ACTIONS TAKEN TO PREVENT RECURRENCE

EQ training was performed in August 1989 which addressed the need for ensuring the installed designs are consistent with tested/analyzed configuration.

9. VIOLATION 89-09-11(a)

Valve RCV-11 was found installed in a configuration other than the tested configuration and the licensee did not have analysis to demonstrate the acceptability of the installed configuration. Specifically, the valve was found with degraded grease in gear box and cracked wiring installation.

FPC RESPONSE

FPC accepts the violation. This was reported in accordance with 10 CFR 50.73 as LER 89-16.

APPARENT CAUSE OF VIOLATION

This condition was the result of unexpectedly high normal operating temperatures.

CORRECTIVE ACTIONS

The degraded condition of the PORV block valve (RCV-11) was discovered during a February 1989 shutdown. Upon discovery, FPC replaced the motor. As a conservative step, FPC closed the PORV block valve prior to plant restart pending the results of additional analysis of why the valve wiring and grease continue to prematurely degrade. This analysis was completed and a new qualified life of approximately 2 years was reestablished. Based on the analysis the PORV was reopened.

DATE OF FULL COMPLIANCE

Full compliance was achieved on June 23, 1989 when the motor for RCV-11 was replaced.

ACTIONS TAKEN TO PREVENT RECURRENCE

FPC has replaced and rerouted the power cable on RCV-11. FPC will evaluate the need to further modify existing conduit and re-route control/power circuits outside the secondary shield wall and possibly route away from high temperature areas near top of the pressurizer.

10. VIOLATION 89-09-11(b)

Transmitters RC-163 ALT, RC-163 BLT, RC-164 ALT, RC-164 BLT, RC-14A delta PT 1-3, RC-14B delta PT 1-3, SP-31 LT, SP-32 LT, SP-21 LT, SP-22 LT, SP-23 LT and SF-24 LT were installed in configurations other than the tested configuration and the licensee did not have analysis to demonstrate the acceptability of the installed configurations. Specifically, the transmitters were installed below the design basis accident flood level but the associated cables and splices had not been qualified for submergence.

FPC RESPONSE

FPC accepts the violation, however the violation is not completely correct as described. The transmitters were verified by the NRC staff and FPC during the walkdowns to be properly located. The cable and termination boxes associated with the transmitters were routed below design basis flood level. This was reported in accordance with 10 CFR 50.73 as LER 89-16.

APPARENT CAUSE OF VIOLATION

This deficiency was caused by inadequate design coordination regarding the locating of equipment during plant modifications.

CORRECTIVE ACTIONS

All affected cables and splices have been moved to above the design basis flood level. Counseling was also provided regarding the importance of considering submergence when installing equipment.

DATE OF FULL COMPLIANCE

Full compliance was achieved on May 26, 1989 when cables and splices were moved to above the design basis flood level.

ACTION TAKEN TO PREVENT RECURRENCE

EQ training will re-emphasize the need to coordinate equipment locations when performing modifications.

11. VIOLATION 89-09-11(c)

Eleven butt splices on Main Steam pressure transmitters MS-106 PT, thru MS-113 PT and Emergency Feedwater Flow Transmitters EF-24 FT thru EF-26 FT were found installed with Raychem WCSF-115 sleeves instead of the required WCSF-070 sleeves and the licensee did not have analysis to demonstrate the acceptability of the installed configuration.

FPC RESPONSE

FPC accepts the violation. This was reported in accordance with 10 CFR 50.73 as LER 89-16.

APPARENT CAUSE OF VIOLATION

It appears poor judgement was used in the selection of certain Raychem splice sleeves. Further, normal variation from nominal cable sizes can impact the selection of appropriate splice sizes.

CORRECTIVE ACTION

FPC conservatively classified the splices as inadequate because the as-installed splice dimension was less than 0.05 inches too large. FPC replaced the as-found splices with new, more properly sized Raychem splices. FPC subsequently established that the as-found splices were in fact qualifiable.

DATE OF FULL COMPLIANCE

Full compliance was achieved on May 18, 1989 when new Raychem splices were installed.

ACTIONS TAKEN TO PREVENT RECURRENCE

EQ training will provide additional emphasis on the need to adhere to detail in deciding qualification issues. FPC also instituted a program to more accurately measure cable dimensions before determining the appropriate splice size. The Commonwealth Edison Report will be added to the EQ file.

B. VIOLATION 89-09-08

10 CFR Part 50 Appendix B Criterion V requires in part, that activities affecting quality be prescribed by documented procedures appropriate to the circumstances.

Contrary to the above, procedures MP-405 and PM-133 were not appropriate for the circumstances in which they were used in that they lacked sufficient detail to ensure the qualified status of certain equipment required by 10 CFR 50.49 was maintained. Specifically, MP-405 did not properly consider vendor bend radius limitations for cables and PM-133 did not properly consider vendor requirements for bearing lubrication.

FPC RESPONSE

FPC accepts the violation.

APPARENT CAUSE OF VIOLATION

Regarding the procedure for Raychem splices, (MP-405) FPC acknowledges that installation procedures should have referenced bend radius limitation criteria. The bend radius was not established due to inadequate comparison of the design to the qualified test configuration. However, as previously stated, the splices were qualifiable.

Regarding PM-133, the failure to include the vendor recommendations for the lubrication of the Reactor Building fan motors was an oversight in that PM-133 is a generic procedure used for lubrication of various equipment and did not provide specific guidance for individual components.

CORRECTIVE ACTION

Notwithstanding the qualifiability of the as-found configuration, the Raychem splices were conservatively replaced with splices satisfying the vendor-recommended minimum bend radii. In addition, MP-405 was revised to reflect the vendor recommendation.

Regarding the lubrication of the fan motors, FPC revised PM-133 to more closely conform lubrication methods to vendor recommendations. This revision should remove doubt regarding the equivalency of methodologies.

DATE OF FULL COMPLIANCE

Full compliance was achieved on May 18, 1989 when the Raychem splices were replaced.

MP-405 was revised on June 27, 1989.

PM-133 was revised on September 12, 1989 to include vendor requirement for bearing lubrication.

ACTIONS TAKEN TO PREVENT RECURRENCE

The above corrective actions should be sufficient to prevent recurrence.