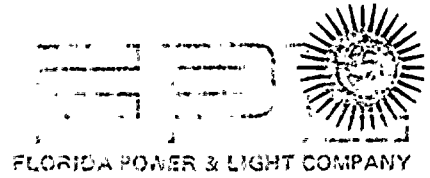


SOUTHERN REGION
ATLANTA, GA 30303

MAY 15 10 53 AM '81



May 11, 1981
L-81-199

Mr. J. P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:MDH, JJL, WPA
St. Lucie Unit 2
Docket No. 50-389/81-04

Florida Power & Light Company has reviewed the subject inspection report and our response is attached. There is no proprietary information contained in the report.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/TCG/gw

Attachment

cc: Harold F. Reis, Esquire

A. Violation (81-04-02) - Failure to Follow Procedures in Performance of Civil Quality Control Inspections

10 CFR 50, Appendix B, Criterion V, as implemented by FP&L Topical Quality Assurance Report Number 5.0, requires that activities affecting quality shall be prescribed by documented instructions, procedures or drawings and shall be accomplished in accordance with these instructions, procedures or drawings. Quality Control instructions were not being followed for concrete inspection as described below.

- A. 1. Quality Control Instruction QI 10.4 requires that concrete repair activities be inspected.

Contrary to this requirement, no inspection was performed during placement of concrete in an area being repaired on the exterior surface of the primary shield wall at azimuth 0°, elevation 36, on March 12, 1981.

Response: (Example 1)

- a. FP&L concurs with the finding.
 - b. The finding is attributed to unintentional communication mix-up between Construction Supervision and Quality Control.
 - c. The Area Director was immediately notified by Quality Control of the bypassed Hold Point. The newly placed concrete in the honeycomb area was washed and cleaned of fresh concrete.
 - d. Construction supervision has been instructed in the Quality Control Hold Point requirement for repairing concrete honeycomb.
 - e. Full compliance has been achieved.
- A. 2. Quality Control Instruction QI 10.71 states that water is not to be added to any concrete batch after making in-process tests for slump, air unit weight and compressive strength.

Contrary to this requirement, water was added to concrete which was placed in reactor building struts 53 D-F, and 54 C-D after making the in-process tests for air, unit-weight, and compressive strength. The in-process tests were not repeated after addition of the water.

Response: (Example 2)

- a. FP&L concurs with the finding.
- b. The concrete was sampled and tested in accordance with QI 10.71 requirements. That is slump, air content, unit-weight, temperature and cylinders were taken. The slump obtained was 3½ inches. After these tests were performed, the Construction Supervisor decided to add additional water. Ten gallons were added and mixed in accordance with ASTM C-94. The concrete was sampled again and tested for slump only. The slump reached

3 3/4 inches. The concrete QC supervisor was present at the test station and decided that further tests or taking cylinders were not necessary. The QC Supervisor then initiated IR C-81-1496 and drafted an NCR for engineering evaluation. The inspection report was dispositioned "Use-As-Is". Documentation of discrepancy was properly initiated in accordance with QI 15.1.

- c. Inspection Report C-81-1496 and a draft NCR were issued by Quality Control. The discrepancy was evaluated in accordance with CPL:QI 15.1.
 - d. No further action is necessary to avoid further violations.
 - e. Full compliance has been achieved.
- A. 3. QC Instruction QI 10.71 states that concrete compressive strength specimens are to be tested in accordance with ASTM C-39. ASTM-39 requires that the rate of loading during testing of the concrete cylinders be applied within the range of 20 to 50 psi per second.

Contrary to this requirement, during testing of concrete cylinder numbers 6796 through 6798, the rate of loading was applied in the range of 60 to 70 psi per second.

Response: (Example 3)

- a. FP&L concurs with the finding.
 - b. The finding is attributed to inattention to testing procedures.
 - c. The Concrete QC Supervisor instructed lab personnel to load cylinders at a rate of 1000 #/sec. This instruction was issued immediately after the NRC Inspector questioned the correctness of procedure being used.
 - d. The Concrete QC Supervisor monitors testing activities to insure compliance with ASTM C-39 requirements.
 - e. Full compliance has been achieved.
- A. 4. QC Instruction QI 10.4 requires that concrete surfaces be inspected after the concrete forms are removed and be documented in Part III of the Post Placement Concrete Inspection Report (Attachment 1 to QI 10.4).

Contrary to this requirement, an informal method was used to document post placement inspections on pour numbers 4, 5, 6, 8A, 8B, 12 and 13 in the Diesel Oil Storage Structure.

Response: (Example 4)

- a. FP&L concurs with the finding.
- b. The finding is attributed to inattention to procedure requirements.

- c. Quality Control reviewed the documentation and existing field conditions to determine extent of similar conditions. The civil log was researched and the Post Placement Inspection Reports for the past six months were identified. These reports date back to concrete placed on site since October 23, 1980 and total 138. The concrete placements covered by these reports were re-inspected in order to verify that form work have been removed and that any concrete deficiency is properly documented. From the 138 reports generated in the past six months, only six were found to have been closed before form work were completely removed. The six reports were retracted from the QA Vault and are reopened in order to properly and completely document existing field conditions. Two reports have been recently completed and the remaining four reports will be closed upon verification of forms removal and subsequent concrete repair, if necessary.
- d. The Concrete QC Supervisor was instructed to keep Post Placement Reports open until forms were removed or concrete repairs completed. A Post Placement Log had been reestablished previously and is being monitored by the Concrete QC Supervisor.
- e. Full compliance will be achieved following remaining form removal.

B. Violation (81-04-04) - Failure to Follow Piping and Pipe Support Installation, Procedures and Drawings

10 CFR 50, Appendix B, Criterion V, as implemented by FP&L Topical Quality Assurance Report Number 5.0, requires that activities affecting quality shall be prescribed by documented instructions, procedures or drawings and shall be accomplished in accordance with these instructions, procedures or drawings. Pipe support and valve drawing requirements were not being followed as described below.

- B. 1. Pipe support drawing SI-2407-40, Rev. 4, requires the installation of structural member piece 4; requires the rigid shock arrestor, piece 6, be within 3° of perpendicular to the wall; and requires the installation of fasteners for piece 1.

Contrary to these requirements, piece 4 was not installed, piece 6 was installed at least 5° off perpendicular, and a piece 1 fastener had insufficient thread engagement. This support had been inspected by QC and accepted.

Response: (Example 1)

The pipe support was installed and inspected in accordance with Revision 1 of the drawing. The subsequent revisions to the drawing required a configuration change which had not yet been constructed or inspected in accordance with the site programs.

Final acceptance of supports are verified prior to system turnover. The revision number of the support detail used for inspection is verified to be current during Phase II QC inspection.

- B. 2. Pipe support drawing SI-2412-31, Rev. 3, requires 1/16" clearance between the box type pipe support and the top and both sides of the pipe.

Contrary to these requirements, pipe support SI-2412-31 had no clearance on the west side of the pipe, 3/32" clearance on the east side, and 3/16" clearance on top of the pipe. This support had been inspected by QC and accepted.

Response: (Example 2)

- a. FP&L concurs with the finding.
 - b. This finding is attributed to inattention to engineering requirements.
 - c. Nonconformance 1800M was written against this support.
 - d. Construction supervision has been instructed to pay more attention to tolerances and engineering details.
 - e. Full compliance will be achieved by July 1, 1981.
- B. 3. Pipe support drawing CC-2063-22, Rev. 2, requires a 12 to 9 slope for structural member piece 4 and a 1 to 1 slope for structural member piece 5.

Contrary to these requirements, piece 4 of pipe support CC-2063-22 had approximately a 6 to 4 slope and piece 5 had approximately a 5.3 to 4.6 slope. This support had been inspected by QC and accepted.

Response: (Example 3)

The location of the hanger, including diagonal bracing is within design engineering approved tolerances. In making the last revision to the hanger detail drawing, the vendor revised the bracing dimensions but neglected to recalculate the resulting slope.

The vendor is being notified in writing to review dimensions for consistency to avoid possible confusion.

- B. 4. Fisher control valve drawing 2998-2584, Rev. 3, (52A8659D) requires chemical and volume control valve 2500 to have 60° internal counterbore on the valve nozzles.

Contrary to this requirement, valve 2500 had a 90° counterbore on the bottom nozzle.

Response: (Example 4)

- a. FP&L concurs with the finding.
- b. Inspection of similar valves not yet installed show this example to be a supplier originated problem not picked up at receipt inspection.

- c. General Inspection Report RG81-04 was written to authorize Combustion Engineering to investigate the significance of this problem. A total of three valves were found where the weld ends which are part of the flange bolted to the bottom of the valve body are not in conformance with the drawing. They are counterbored to a 90 degree shoulder transition.
 - d. Combustion Engineering will determine what actions will be taken with Fisher Controls to avoid further violation of this type.
 - e. Full compliance will be achieved by July 1, 1981.
- C. Violation (81-04-05) - Unauthorized Modification of Seismic Cable Tray Support 1336

10 CFR 50, Appendix B, Criterion V requires that activities affecting quality be performed in accordance with established procedures. FP&L QA Topical Report supplements this requirement and established Site Quality Procedure 17, Design Control, which requires changes in design requirements to be accomplished through field change requests.

Contrary to the above, the requirements of SQP-17 were not met in that Seismic Class I cable tray restraint 1336 was modified to permit installation of a non-safety-related cable tray without a field change request being prepared.

Response:

- a. FP&L concurs with the finding.
- b. The finding is attributed to inattention to job detail and drawings.
- c. NCR 1710E was prepared to authorize removal of the horizontal brace and fabrication and installation of a new brace with its connection at the west end moved to clear the interference.
- d. To avoid further violations, this condition and corrective action taken was discussed in a staff meeting with the Area Directors.
- e. Full compliance has been achieved.

NRC CONCERNS

- 1. NRC Civil Inspector expressed concern to licensee site management personnel regarding the occasional failure of Civil QC inspectors to pay close attention to inspection requirements and details as noted in the findings noted.

Quality Control Civil supervisors and inspectors have been briefed on the need to pay attention to details and requirements delineated in the Quality Instructions. Quality Control supervisors have been instructed to monitor this concern closely.

2. The NRC Mechanical Inspector expressed concern that CPL:QI 10.14 does not require specific dimensional inspection of erected pipe support components nor does the procedure provide verification that as-built pipe supports are in accordance with the latest revision of pipe support drawings during Phase II.

In this regard, a revision to CPL:QI 10.14 has been prepared and is currently in the review cycle to incorporate the requirement for dimensional checks to the latest drawing revision during Phase II inspections. Also, a task force comprised of engineering and QC personnel has been formed to double check for final revisions during Phase II to assure compliance to the stress calculations.

3. The NRC Mechanical Inspector expressed concern that site quality procedures and quality control instructions did not adequately describe how to avoid cold springing of piping.

Following discussions with the NRC Inspector, SQP-47 was revised to provide a description of what constitutes cold springing and instructions to craftsmen and inspectors on how to avoid this potential problem.

4. The NRC Inspector noted that Power Plant Engineering had confirmed that the NSSS supplier had identified all applicable valves with a potential cracking problem as part of the investigation of a License Identified Item. However, EPP had not requested the Architect Engineer to determine if similar problems could be experienced in their valve orders.

The checklist used to document Construction Site Group review meetings to determine if a deficiency is potentially reportable has been modified to add contacting the A/E or NSSS as necessary. This action should prevent future occurrences of this nature.

5. The NRC Inspector noted that the number of relatively minor mechanical non-conforming conditions also showed a lack of attention to detail and if left uncorrected could lead to potentially more significant conditions.

Quality Control Mechanical Supervisors and Inspectors have been briefed on the need to pay attention to details and requirements delineated in the Quality Instructions. Quality Control Supervisors have been instructed to monitor this concern closely. In addition, significant progress has been made by U. S. Testing in recruiting additional qualified inspection personnel and a continuing effort will be maintained to assure adequate staffing levels.

6. The Electrical NRC Inspector expressed concern that later in the project, the pressure to get cables installed would increase and some partially completed cable pulls may be completed without adequate QC inspection.

SQP-24 is being revised to strengthen the QC notification requirement for partial pulls. Approval of this revision is anticipated by June 1, 1981.

7. The inspector noted that termination verification was being made in accordance with SQP-22. However, cable continuity tests were being conducted afterward by Construction Test in accordance with SQP-54.

A letter of understanding is being prepared by Construction Test, stating that cable continuity tests and verification that cables are terminated to the CWD will be documented on the Control Cable Checklist. Upon receipt of a copy of this checklist, Quality Control will perform their termination verification in accordance with SQP-22. This program will be in effect by June 1, 1981.

8. The NRC Inspector was concerned that an interoffice memorandum from the SRE to the PQCS provided ESSE interpretation of drawing requirements for pipe support clearances. This interpretation had not been documented on an FCR.


To provide complete clarity, FCR 2-3643 has been issued to: (1) document design engineering approval of the tolerance and (2) spell out the tolerance which can be understood.

STATE OF FLORIDA)
)
COUNTY OF DADE) ss.

Robert E. Uhrig, being first duly sworn, deposes and says:

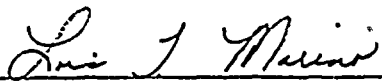
That he is a Vice President of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this said document are true and correct to the best of his knowledge, information, and belief, and that he is authorized to execute the document on behalf of said Licensee.


Robert E. Uhrig

Subscribed and sworn to before me this

11th day of May, 1981



NOTARY PUBLIC, in and for the county of Dade,
State of Florida

My commission expires: _____
NOTARY PUBLIC STATE OF FLORIDA at LARGE
MY COMMISSION EXPIRES AUGUST 24, 1981
BONDED THRU MAYNARD BONDING AGENCY

