



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-400/84-45

Licensee: Carolina Power and Light Company
411 Fayetteville Street
Raleigh, NC 27602

Docket Nos.: 50-400

License Nos.: CPPR-158

Facility Name: Harris 1

Inspection Conducted: December 11-14, 1984

Inspector: *C. M. Upright for* *1/11/85*
R. W. Wright Date Signed

Approved by: *C. M. Upright* *1/11/85*
C. M. Upright, Section Chief Date Signed
Division of Reactor Safety

SUMMARY

Scope: This special unannounced inspection entailed 27 inspector-hours on site in the areas of worker's concern with regard to nonconformance control, training, and pressure on construction inspection personnel and an apparent lack of freedom and independence to identify problems.

Results: Of the three areas inspected, no violations or deviations were identified.

8502060367 850111
PDR ADOCK 05000400
G PDR

REPORT DETAILS

1. Licensee Employees Contacted

- *R. M. Parsons, Project General Manager, Completion Assurance
- *E. J. Wagner, Engineering General Manager
- *N. J. Chiangi, QA/QC Manager, Harris Plant
- *M. D. Vernon, Superintendent QC
- *G. M. Simpson, Principal Construction Specialist
- *J. W. McKay, Resident Civil Engineer
- *D. C. Whitehead, QA Supervisor
- *A. G. Fuller, Principal Engineer, Pipe Hangers
- *K. V. Hate, Principal QA Engineer
- *P. H. Cook, Jr., Central Control Supervisor
- *P. W. Howard, Senior Engineer, Pipe Hangers
- W. Hensley, Training Coordinator, Hanger Department

Other Organizations

- *G. F. Cole, Vice President, Daniel Power
- *C. L. McDonald, Resident Hanger Engineer

NRC Resident Inspectors

- *R. Prevatte

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on December 14, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the following inspection finding:

Inspector Followup Item 400/84-45-01: QA indoctrination/training update for crafts and CE personnel concerning Procedure CQA-3 content, paragraph 5.b.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Worker Concerns

Potential Problems: An affidavit dated October 6, 1984, was received from a former construction engineer at Shearon Harris expressing concerns about CP&L's commitment to nuclear safety and the as-built quality of construction at the Shearon Harris Nuclear Power Plant (SHNPP).

The following statements in the subject affidavit will be addressed in this report:

- CP&L and CP&L's prime contractor, Daniel, employ a confusing and ineffective array of different documenting systems for controlling nonconformances such as DRs, DDRs, NCRs, FCRs/PWs and such commonly used uncontrolled paperwork as Memos and "Speed Letters". I doubt that the QA vault contains even a fraction of the deficiencies in safety systems.
- Few of us were trained in which procedures were to be used when. Mostly we wrote things down informally.
- There is a great deal of pressure on the Construction Inspection (CI) organization which lacks the freedom and independence from cost and scheduling considerations to effectively perform their QA duties of identifying and documenting deficiencies.

Observations and Resolutions: The NRC inspectors interviewed 15 SHNPP personnel (6 construction engineering (CE), 5 construction inspection (CI), and 4 QA/QC). These people had a combined working average of 5 years tenure at SHNPP with the longest employment span being 11 years and the shortest employment span being 2 years. Pertinent procedures and records were also examined in the inquiry of the above listed worker concerns.

- a. Confusing Systems For Controlling Nonconformance Such As DRs, DDRs, NCRs, FCRs/PWs And Such Commonly Used Uncontrolled Paperwork As Memo's And "Speed Letters".

FCRs/PWs are not analogous to nonconformances as implied by the former concerned worker. As defined by CP&L's Corporate QA Program and ANSI N45.2, a nonconformance is a deficiency in characteristic, documentation, or procedure which renders the quality of an item unacceptable or indeterminate. FCRs/PWs on the other hand are controlled documents generally written by CE personnel to record field requests for design approval for changes to design documents, clarification of information to the field, making a new design for the field, or for the acceptance of a condition to use-as-is. -

Procedure CQA-3, Nonconformance Control, implemented around January 1984 brought about two significant changes to CP&L's nonconformance program. First, it eliminated the various different controlled documenting systems (DRs, DDRs, NCRs) by employing only one controlled

nonconformance document, the NCR. Secondly, it specified that any person knowledgeable of a known or potential nonconformance may go to Central Control and initiate a nonconformance report.

As correctly stated by the concerned worker, CP&L nonconformance control procedures in effect prior to January 1984 did not specify how CE or craft personnel were to handle potential or known nonconforming conditions once identified. These procedures (CQC-2, TP-17, AP-IX-06) were written exclusively for quality inspection and verification organizations (QA/QC and CI). However, interviews conducted individually with 15 randomly selected CE, CI, and QA/QC personnel identified that they were nearly unanimous in agreement as to how these CE/craft identified discrepancies were handled prior to January 1984. Although few could recall any formal instruction in this matter, it appeared to be well known that the policy at that time was to bring these suspect discrepancies to the attention of the QA/QC/CI personnel having cognizance for the item and they would write the nonconformance report if deemed appropriate. The interviewees stated that because of the close site interorganizational working relationships the vast majority of CE/craft identified discrepancies were handled by the discoverer physically showing the cognizant quality organization the suspected nonconformance in the field. Occasionally, a verbal communication or telephone call to the quality organization may have been made.

Some CE/QC personnel were aware that speed letters or memos had been utilized to describe suspected nonconforming conditions particularly to the pipe welding QC inspection group. Speed letters were also reported to have been initiated by some CE personnel to follow up on both physically and verbally identified discrepancies and copies of these memos were kept by the engineer until he saw a copy of the controlled system nonconformance report identifying his discrepancy. In any event, no one interviewed was aware of any specific instances where a valid nonconformance whether visually identified, verbally communicated, or written on a speed letter to the cognizant quality organization did not eventually get reported into a controlled nonconformance documentation system. In fact, the one example (Speed Letter dated 8/25/82, Loads Imposed on the Steam Generator Feed Pump 1A-NNS) received from the concerned worker was documented on Discrepancy Notification DN M010 which was dated 7/30/82 or approximately one month prior to the speed letter being written.

Speed Letters are a 3-part uncontrolled memorandum utilized to transmit information from one party to another. The inspector examined 25 such memoranda found in files of the former Project General Manager which were written during the period 1980-1982. None contained information that should have been written up in the nonconformance control system.

b. Few Of Us Were Trained In Which Procedures Were To Be Used When

Contrary to the worker's concern regarding lack of training, the NRC inspector examined documented evidence of completed required readings for several CE mechanical personnel interviewed including the concerned worker. These required readings from the ASME N-STAMP Program Reading List (TP-25, Exhibit 2) include various QA manuals; parts of general construction procedures; administrative, technical, work, and mechanical procedures; familiarity with the content of the Harris PSAR; and various specifications. The most notable on this required reading list are procedures AP-IX-06 and TP-17 concerning nonconformance control and procedures AP-IX-05 and AP-IX-15 involving the handling of DCNs, FCRs, and PWs. An attendance list dated March 3, 1982, indicates that the concerned worker along with many of the CE mechanical personnel interviewed received training by E. E. Willett on procedure AP-IX-16, Processing of Deficiencies In Accordance With 10 CFR 50.55(e).

Although all persons interviewed by this inspector appeared to be knowledgeable of the relatively new procedure CQA-3 and the significant changes therein, three second shift CE pipe support group personnel interviewed by another NRC inspector in my presence did not appear to be aware that they could initiate nonconformances. Their working experience at SHNPP varied from approximately one month to one year. However, all were aware of the quality check program and all expressed the opinion that if they discovered an item that appeared to be a potential nonconformance, they would go to the cognizant CI or QA/QC organization and have them write it up. Since all discrepancies discovered would have gotten into the existing controlled nonconformance system, no violation was issued. However, this item was discussed with the CE training coordinator and identified at the exit meeting as inspector followup item IFI 400/84-45-01, QA Indoctrination/Training Update For Crafts and CE Personnel Concerning Procedure CQA-3 Content.

c. The CI Organization Lacked Freedom of Independence and The Pressures on CI Were Such That This Group Could Not Effectively Perform Their QA Duties of Identifying and Documenting Deficiencies.

The NRC inspector examined sufficient documentation to verify that formal lectures and training were given to SHNPP QA/QC personnel in August 1983 concerning CP&L's policy regarding licensee employee interface with NRC. CP&L's stated policy was and still is as follows:

"First of all, you have the right to go to the NRC at any time and for any reason that concerns a quality problem without fear of reprisal from CP&L. We only ask that prior to going to the NRC, CP&L management, starting with your immediate supervisor, be given the opportunity to respond to your questions or concerns. If necessary, your concerns may be taken up through the CP&L chain of command to whatever level is necessary to satisfactorily address

them. Secondly, you do not have to incriminate yourself. Thirdly, you do not have to sign any written statement without benefit of legal counsel. (CP&L will supply legal counsel if requested.) Any time you are dealing with the NRC, you have the right to request your supervisor or a QA Engineer be available to help answer questions."

The Manager of Engineering and Construction QA contends that this has been CP&L's management philosophy since day one at SHNPP. Each of the fifteen interviewees were asked what the CP&L policy was regarding their interface with the NRC and whether or not they fear reprisal by the company if they brought concerns to the NRC. All the QA/QC personnel interviewed reiterated the company's policy when answering the question. Four out of six CE personnel would have followed the official CP&L policy. One felt that, since he turned his problems (discrepancies) over to the cognizant QC/CI organization for resolution and they had freedom of access to the NRC, he would never have to go to the NRC. The sixth individual never thought about it in that he had complete confidence in the company's handling of quality matters; he was not aware of the company's official policy in this matter. Although four out of five CI personnel answered the correct company policy and the fifth individual implied he would take his concerns right up the line; three of the five stated that they were never told the company's official policy in this matter. No one interviewed felt he had to inform his supervisor prior to contacting the NRC and no one expressed fear of company reprisal if they did so.

No one interviewed felt that at any time the CI group lacked the freedom it needed to do its job effectively, nor were the pressures such that this group could not perform their QA duties of identifying and documenting deficiencies. Two persons recalled occasions when CI may have been short on inspection personnel and the crafts and CE complained that CI was holding up their work, but CI "held their guns" and continued to do their thorough inspections satisfying procedural requirements in all cases. Additionally, no one was aware of any employee who they felt was unjustly treated by CP&L because he or she did their job by conscientiously identifying valid problems and writing them up.

It is correct that during the majority of the time the concerned worker was employed by CP&L the CI and CE branches reported to the same person, the Senior Resident Engineer. However, the branches of any managerial organization eventually come to a common head at some point in the organization. The above described QA organization (which was not unique to CP&L) was acceptable to the NRC because there were no indications that the CI group did not have sufficient authority and organizational freedom to identify quality problems and get them resolved. During August 1983, Region II identified this matter as an inspector followup item in Inspection Report 50-400/83-25 stating that the current CI organization was placed in a position where the

potential existed for a loss of organizational freedom to perform required quality inspection. However, the inspectors did not conclude that this freedom was lost. Subsequently, around October 1983, CP&L further enhanced the QA program by placing CI under the direct control of the Project General Manager taking one step further to alleviate any possible further concerns in this matter.

Summary: The inspector did not encounter any evidence to substantiate the concerned worker's claims. Based on the results of the interviews conducted and documentary evidence examined, there was no indication that a programmatic breakdown occurred in any areas investigated that would affect the safe operation of SHNPP.