



November 16, 1977

L-77-348  
central files  
50-389

Mr. James P. O'Reilly, Director  
Office of Inspection and Enforcement, Region II  
U. S. Nuclear Regulatory Commission  
230 Peachtree Street, N.W., Suite 1217  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:RWW  
50-389/77-3

Florida Power and Light Company has reviewed the subject inspection report. There is no proprietary information in the report.

Very truly yours,



Robert E. Uhrig  
Vice President

REU/MV:ltm

cc: Robert Lowenstein, Esq.





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
230 PEACHTREE STREET, N.W. SUITE 1217  
ATLANTA, GEORGIA 30303  
OCT 25 1977

In Reply Refer To:  
RII:RWW  
50-389/77-3

Florida Power and Light Company  
Attn: Dr. R. E. Uhrig, Vice President  
of Nuclear and General  
Engineering  
P. O. Box 013100  
9250 West Flagler Street  
Miami, Florida 33101

Gentlemen:

This refers to the inspection conducted by Mr. R. W. Wright of this office on September 13-16, 1977, of activities authorized by NRC Construction Permit No. CPPR-144 for the St. Lucie Unit 2 facility, and to the discussion of our findings held with Mr. B. J. Escue at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have examined actions you have taken with regard to previously identified inspection findings. These are discussed in the enclosed inspection report.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

GD

Florida Power and Light  
Company

-2-

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,



C. E. Murphy, Chief-  
Reactor Construction and Engineering  
Support Branch

Enclosure:  
RII Inspection Report No.  
50-389/77-3

cc: Mr. K. N. Harris, Plant Manager  
St. Lucie Plant  
P. O. Box 128  
Ft. Pierce, Florida 33450

Mr. Nat Weems, Assistant QA Manager  
P. O. Box 128  
Ft. Pierce, Florida 33450



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
230 PEACHTREE STREET, N.W. SUITE 1217  
ATLANTA, GEORGIA 30303

Report No.: 50-389/77-3

Docket No.: 50-389

License No.: CPPR-144

Category: A2

Licensee: Florida Power and Light Company  
P. O. Box 013100  
Miami, Florida 33101

Facility Name: St. Lucie Unit 2

Inspection at: Hutchinson Island, Florida

Inspection conducted: September 13-16, 1977

Inspector: R. W. Wright

Reviewed by:

*J. C. Bryant*  
J. C. Bryant, Chief  
Projects Section

Reactor Construction and Engineering Support Branch

*10-21-77*  
Date

Inspection Summary

Inspection on September 13-16, 1977 (Report No. 50-389/77-3)

Areas Inspected: QA manual including procedures for controlling CBI steel containment vessel work; work performance and activities for a reinforced concrete base mat placement; site audits conducted, licensee actions on previously identified enforcement and 50.55(e) items. The inspection involved 26 inspector-hours on site by one NRC inspector.

Results: No items of noncompliance or deviation were identified.

DETAILS I

Prepared by: R. W. Wright  
 R. W. Wright, Principal Inspector  
 Projects Section  
 Reactor Construction and Engineering  
 Support Branch

20 Oct 1977  
 Date

Dates of Inspection: September 13-16, 1977

Reviewed by: J. C. Bryant  
 J. C. Bryant, Chief  
 Projects Section  
 Reactor Construction and Engineering  
 Support Branch

10/20/77  
 Date

1. Persons Contacted

a. Florida Power and Light Company (FP&L)

\*B. J. Escue, Site Manager  
 \*N. T. Weems, Assistant QA Manager  
 L. T. Page, QA Engineer, Civil  
 O. J. Karch, QA Engineer, Civil  
 \*W. M. Hayward, QA Engineer  
 \*W. M. Gaines, Site Engineer Representative  
 \*M. L. Snow, Project QC Supervisor  
 \*R. G. Reesby, Area QC Supervisor, Civil  
 \*T. D. Geissinger, QC Inspector, Civil  
 \*J. D. Kirk, Services Superintendent  
 B. M. Parks, QA Engineer, Mechanical

b. Contractor Organizations

(1) Ebasco Services, Inc. (EBASCO)

J. D. Distel, NY Design Engineer  
 \*W. J. Taylor, Project Superintendent  
 \*R. A. Garramore, Senior Resident Engineer  
 K. N. Flanagan, Construction Superintendent

(2) Chicago Bridge and Iron Company (CBI)

C. L. Fields, Project Welding and QA Supervisor  
 J. P. Capps, Project Foreman

The inspector also interviewed other licensee and contractor employees during the course of the inspection. They included

CBI and Ebasco craftsmen, batch plant, materials testing and concrete placement QC personnel.

\*Denotes those present at the exit interview on September 16, 1977.

2. Licensee Actions on Previous Inspection Findings

(Open) Noncompliance 389/77-1N1:

Failure to follow procedures for concrete agitation and vibration. The RII inspector examined a proposed draft corrective action response to the above inspection finding which revealed considerable indoctrination and a special retraining session have been conducted on vibration specifications for the manual placement crews including journeymen, foremen and a general foreman. Attendance records for the subject training session were examined to insure that this instruction was indeed implemented and documented. Discussions with several attendees of the session revealed the training was beneficial. The Batch Plant Superintendent has reinstructed his concrete truck drivers to reset their truck drum revolution counters to a zero reading prior to being loaded by the central mix plant and to maintain drum rotation at agitating speed while in the stand-by position. The RII inspector witnessed the partial placement of reactor containment building placement 110-B and noted that proper vibration techniques and concrete agitation measures were being implemented. This item will remain open until the licensee's official response has been received and evaluated.

3. Unresolved Items

No unresolved items were identified.

4. Independent Inspection Effort

Containment (Structural Concrete I) - Observation of Work Performance and Work Activities

The RII inspector observed the preparation, concrete delivery techniques, partial placement, inspection and testing for reactor containment base mat placement Section 110-B. The activities associated with the subject concrete placement were inspected for conformance to the following acceptance criteria: Sections 3.8.1, 3.8.3 and 17 of the PSAR; Ebasco Specification FLO-2998.473, Rev. No. 3; Construction Site Procedure CSP-2; Quality Instructions 10.3, 10.4, 10.6, 10.11, 10.71, 10.76; ANSI - 45.2.5 standards; and construction drawing Nos. 2998-G-488 Rev. 5, 2998-G-490 Rev. 2 and 2998-G-491, Rev. 4.



The batch plant operation was observed and the facilities inspected for proper storage, segregation and protection of concrete ingredient materials.

No items of noncompliance or deviation were identified.

5. Review of Contractor QA Manual

The PSAR, Chapter 17, paragraph 17.1.4.3, specifies the FP&L suppliers QA program evaluation commitments. The detailed instructions for evaluation of a supplier's QA program are provided in Quality Procedure No. QP 7.4, "Evaluation of Contractor's/Suppliers QA Program and Procedures."

In accordance with contract No. NY-422501 the licensee obtained CBI's services to furnish, fabricate, shop paint, deliver, unload, haul, erect, single stage post-weld heat treat, test and field paint the steel containment vessel with all appurtenances, equipment hatches, personnel locks and other penetrations in strict accordance with specified Ebasco specifications and drawings.

FP&L's Audit No. 08.03.CBI.77.1 conducted January 17-18, 1977 on CBI's QA activities resulted in no unsatisfactory findings and verified the adequacy of CBI's QA program and related procedures.

The RII inspector reviewed Division 4, entitled "Construction" of the CBI "Nuclear Quality Assurance Manual for ASME Section III Products," issue No. 6 dated April 3, 1975 to assure adequate plans and procedures had been established for their scope of work. This review included site organization, control of material and processes, control of conditions adverse to quality, document control, test control and control of test equipment, control of quality records and audits.

Within the areas examined, no items of noncompliance or deviation were identified.

6. Site Audits

The PSAR, Chapter 17.1.18.5, specifies the FP&L audit commitments. The detailed instructions for conducting and scheduling audits are provided in Quality Procedure Nos. QP 18.1 and 18.2.

The FP&L internal audit system was inspected and it was found that seven audits had been conducted between May 31 and July 27, 1977.

In the conduct of these audits, the licensee identified two items needing corrective action and the required corrective action was found to have been accomplished in a timely manner.

No items of noncompliance or deviation were identified.

7. Base Mat Unplanned Construction Joint - S.E. Quadrant 10 CFR 50.55(e)

A meeting was conducted by Ebasco's Senior Resident Engineer and their New York design engineering representative to brief the RII inspector, site manager and FP&L QA personnel on the latest proposed plans for completing the subject aborted placement. Cross sections of existing concrete profiles were displayed and details involving proposed lift thickness, consolidation of the concrete and the documentation of the repair work was discussed. Ebasco determined that no additional rebar must be added nor are shear keys necessary to meet the intent of original design. Ebasco's evaluation report of the subject matter is presently being submitted to FP&L's corporate QA for comments and should be received by the NRC soon in accordance with requirements.

The RII inspector examined the subject placement and observed corrective action consisting of chipping and cleaning operations in progress.

No items of noncompliance or deviation were identified.

8. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection and summarized the scope of inspection activities and findings relative to: the independent inspection effort (denoted in paragraph 4); the CBI QA Manual review (paragraph 5); the FP&L site audits examined (paragraph 6); and discussed the licensee's actions taken relative to the previously identified noncompliance (paragraph 2) and the reported 50.55(e) item (paragraph 7). The inspector stated that there were no new noncompliances, deviations or unresolved items found during this inspection.

The licensee had no questions or dissenting comments.

