UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report No. 50-389/80-10

Licensee: Florida Power & Light Company
9250 West Flagler Street
Miami, FL 33101

Facility Name: St. Lucie 2

Docket No. 50-389

Inspection at St. Lucie site near Ft. Pierce, Florida

Inspector: C. R. McFarland — Date Signed: 8-18-80

Approved by: J. C. Bryant, Section Chief, RCES Branch — Date Signed: 8/21/80

SUMMARY

Inspection on July 22-25, 1980

Areas Inspected

This routine, unannounced inspection involved 24 inspector-hours on site in the areas of reactor vessel installation; inspector followup items; licensee identified items and an inspection and enforcement bulletin.

Results

Of the areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Employees

*B. J. Escue, Site Manager
*J. A. Thompson, Assistant Site Manager
N. T. Weems, Assistant Manager, QA Construction
*W. M. Hayward, QA Supervising Engineer
D. R. Cooper, QA Supervising Engineer
*E. Sherman, QA Engineer
J. R. Pendland, Licensing

Other Organizations

Ebasco Services Incorporated (EBASCO)

*R. A. Garramore, Senior Resident Engineer
P. Gaboury, Resident Engineer, Field
*J. L. Parker, QC Supervisor
*W. F. Jackson, Welding Superintendent
T. J. Behres, Document Control Supervisor
J. Soares, Civil QC Inspector

U. S. Testing Company (US Testing)

H. Lindstrom, Training Coordinator
S. Wallace, Assistant Training Coordinator

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on July 25, 1980 with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

a. (Closed) Infraction 389/79-07-01 Welder performance qualification records. The inspector discussed with cognizant licensee personnel the corrective actions taken. QI 9.3, Radiographic Inspection, revision 1 has been issued, dated October 2, 1979, and is being implemented. Item 4.16.2 now addresses the recording of certain indications as they appear on the radiographic film as discussed with the Region II metallurgical engineer on a previous inspection (report 50-389/79-14).

b. (Closed) Infraction 389/80-05-01. Failure to follow procedure requirement to use certified NDE personnel. The inspector reviewed the corrective action program as stated in the licensee response to Region II dated June 27, 1980 and discussed the subject with resposible FP&L

and US Testing personnel. The inspector reviewed the applicable procedures, selected and reviewed the documentation of qualification records of twelve US Testing QC personnel representative of the various disciplines of QC inspection on site. The licensee corrective action program to preclude recurrence of the problem has been put into practice as stated in the response to Region II.

The inspector reviewed the weld travelers for the three isolated cases referenced in the licensee response to Region II, the documentation of qualification records for the QC inspector that was not certified, and the licensee's May 7, 1980 investigation report. The records reveal that the QC inspector had passed his qualification tests on August 29, 1979 prior to performing the inspections in question on September 7 and 14, 1979. Although his official certification had not been issued at the time, he had passed the MP test and had more that the required prior work experience related to precision work, welding, and welding inspection. The NRC inspector concurs with the licensee's investigation report and concludes that although the allegation and infraction are technically correct the MP inspection revealed no relevant indications, the welds were found to acceptable, and the potential of recurrence has been minimized by the corrective actions taken.

c. (Open) Infraction 389/80-08-01, Inadequate procedural controls on sand-cement fill. The FP&L response dated July 24, 1980 provides information relative to the corrective actions taken to correct the deficiencies cited relative to the sand-cement backfill activities. The corrective actions will be inspected during a subsequent inspection.

4. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 6.

5. Independent Inspection

a. CBI guyed tower crane - The boom of the derrick has been modified by adding tie plates and cover plates at various locations to strengthen the boom. A construction representative from Chicago Bridge and Iron Company (CBI) supervised the welding. EBASCO QC inspected the work involved. FP&L QA has performed surveillance of the modification work and the subsequent load testing. The CBI report of the modification to the design of the derrick and the above structural modification has not been received by FP&L to date. Inspector Followup Item 389/80-07-01 remains open pending review of that report by the licensee and the inspector.

b. Interviews with craftsmen - During the inspection of the work inside containment, the inspector talked to ten craft personnel about the general abilities and interests to build a safe nuclear plant. The comments received included favorable comments relative to the quality

of work, the general amount of rework (less than expected), the adherance to specifications and procedural requirements, the lessons learned from Unit 1, plant safety, and a positive attitude relative to nuclear power plants and St. Lucie in particular. No negative comments were received relative to FP&L's interest and ability to build a safe nuclear power plant.

6. Reactor Vessel Installation

The inspector observed work in progress related to the installation of the reactor pressure vessel (RPV). Final fitting of the support plates had not been completed at the time of the inspection. The work procedures had been approved by the licensee prior to the start of work and the inspector reviewed the QA audits of the work to date. The two steam generators, the pressurizer and the RPV are in place in the containment vessel. The inspector observed that the threads for the bolts holddown for the recently installed pressurizer were not protected. The use of protective covers for safety related structural bolts is identified as Inspector Followup Item 50-389/80-10-05.

During the observation of work related to the setting of the above nuclear steam supply system vessels, the inspector observed uncontrolled used E7018 welding rods on the floor under the pressurizer, by penetration 30 at elevation 22 feet, at azimuth 237 at elevation 50 feet, at the work area north of the equipment hatch at elevation 30 feet, and at the work area north of the equipment hatch at elevation 40 feet. There were no buckets for used weld rods at any of the above locations. Until the procedural requirements are reviewed the above concern is identified as unresolved item 50-389/80-10-01, controlling used weld rod.

7. Licensee Identified Items (LII)

a. (Open) LII 389/80-10-02 Cracked Terminals on Electrical Terminations. On July 8, 1980 the licensee informed Region II of a potential concern regarding instrument wire terminals that have been broken on electrical penetration C3 and C7 of the containment vessel. The inspector reviewed the report of the manufacturer, Conax Corporation Buffalo, N. Y. dated June 3, 1980, of the analysis of the ring tongue connectors installed on terminal boards within the Conax electrical penetrations supplied to St. Lucie, Unit 2. From May 15 through May 22, 1980 all penetration ring tongue connectors were inspected by a Conax inspector. Twenty-two fractured ring tongue connectors (lugs) were found at penetration C-3, and one on penetration C-7. All twenty penetrations (11,490 ring tongue connectors) were inspected. Penetrations C-3 and C-7 both had feed thru modules added at the Conax factory. Unique accessibility and assembly problems may have contributed to the deficiencies. The NRC inspector also reviewed the May 30, 1980 and June 2, 1980 FP&L letters to the Conax Corporation, the site NCR's 1142, 1178 and 981 relative to the deficiencies, and the July 8, 1980 50-55(e)/Part 21 Site Group Meeting report. This item remains open pending the review and inspection of the FP&L response to Region II that is due August 7, 1980 and the corrective action program implemented by FP&L.

b. (Open) LII 389/80-10-03 480 Volt Motor Control Center (MCC) Contactor Coil Retainers. On July 16, 1980 the licensee informed Region II of a potential concern regarding coil retainers CR 206 CO and 2R 209 CO for class IE controllers. Suspect units will all be date coded between 7948 and 8018 on the retainers as reported in an undated General Electric Company letter to Ebasco Service Inc. The items in question are for MCC's 2A7, 2A8, 2B7 and 2B8 which are on site in a warehouse. The inspector reviewed the Site Groups Meeting report dated July 15, 1980 and the supporting documentation. This item remains open pending review and inspection of the FP&L response to Region II that is due August 15, 1980 and the corrective action program implemented by FP&L.

c. (Open) LII 389/80-10-04, Condensate Storage Tank Dedication Violation. On July 25, 1980 FP&L informed Region II of a reportable item related to a nozzle added in error to the piping located inside the condensate storage tank. The added piping would have permitted the condensate water to be removed below the dedicated water level. The erroneous piping will be removed. A 10 CFR 50.55(e) report is to be submitted by August 25, 1980.

d. (Open) LII 389/80-07-02, Emergency Diesel Generator Field Excited Cables. FP&L has reevaluated the subject and determined that it is a reportable item. An interim report to Region II dated July 10, 1980 confirms the need to report the item and states that a final report will be submitted by August 30, 1980.

e. (Open) LII 389/80-06-02, Diesel Generator Control Panel Discrepancies. FP&L has provided Region II with interim reports dated June 2 and June 17, 1980. A final report is scheduled to be submitted by July 31, 1980. This item was not inspected on site.

f. Open LII 389-80-06-01, Containment Cooling Fan Motor Controllers. The FP&L final report dated June 2, 1980 has been received. This item remains open pending the review of the FP&L operational procedures that are to be revised.

g. (Open) LII 389/80-03-02, Defective Stud Welds. The FP&L interim report dated July 28, 1980 confirms information received at the site that FP&L is still in the process of receiving data from the door manufacturer. A final report is scheduled to be submitted by September 30, 1980.

h. (Open) LII 389/80-03-01, Defective Hydramotor Actuators. FP&L has provided Region II with an interim report dated June 30, 1980. The equipment will remain on hold until the corrective action program is completed. A final report is scheduled to be submitted by October 31, 1980.

8. IE Bulletins

(Closed) IEB 79-03A, Longitudinal Welds Defects In ASME SA-312 Type 304 Stainless Steel Pipe. Region II has reviewed the FP&L response dated July 24, 1980. The licensee has determined that niether ASME SA-312 nor A-312, Type 300 service fusion welded stainless steel pipe is used or planned for use in Unit 2 safety related systems.