



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

Report No.: 50-389/83-01

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

Docket No.: 50-389

License No.: CPPR-144

Facility Name: St. Lucie

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

Inspector: John W. York  
John W. York

1/28/83  
Date Signed

Approved by: J. J. Blake  
for J. J. Blake, Section Chief  
Engineering Program Branch  
Division of Engineering and Operational Programs

2-2-83  
Date Signed

SUMMARY

Inspection on January 3-7, 1983

Areas Inspected

This routine, unannounced inspection involved 36 inspector-hours on site in the areas of licensee action on previous enforcement matters, independent inspection efforts, safety-related pipe support and restraint systems, safety-related structures (welding), and licensee action on previous identified inspection items.

Results

Of the five areas inspected, no violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*R. Uhrig, Vice President Advanced Systems and Technology
- \*B. J. Escue, Site Manager
- \*W. Jackson, Welding Superintendent
- \*N. Weems, Supervisor QA
- \*R. Symes, Supervising QA Engineer
- \*P. Carrier, Licensing Engineer
- \*E. Preast, Sr. Resident Engineer

Other licensee employees contacted included technicians and office personnel.

#### Other Organizations

- \*G. Krauss, EBASCO Site Project Engineer
- \*G. Grace, EBASCO Licensing Engineer
- \*J. Orlowski, Combustion Engineering Licensing Engineer

#### NRC Resident Inspector

- \*S. Elrod

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on January 7, 1983, with those persons indicated in paragraph 1 above. The licensee acknowledged the inspection findings.

### 3. Licensee Action on Previous Enforcement Matters

(Closed) Unresolved Item 389/80-15-08, Cold Spring Control Requirements. FP&L Construction Quality Control Instruction QI 9.1, Rev. 3, Attachment 1, Paragraph 1.2.6 states that cold spring is not allowed in fit-up of piping joints. The inspector reviewed the tolerances for pipe alignment contained in EBASCO Specification 2998.099, N-Stamp and Non-Nuclear Piping. In EBASCO memo 2-ESSE/3134 dated April 20, 1981, the statement was made that each case of misfit alignment must be reviewed by ESSE (EBASCO site engineering group). The inspector reviewed EBASCO Applied Mechanics Technical Memorandum No. TM1, Field Installation Tolerances on Misfits for Final Pipe Weld Fit Up for ASME-III, Classes 2, and 3, and ANSI B.31.1, Power Piping. These documents give the guidelines for cold spring control requirements. The inspector reviewed nonconformance reports 4227M, 4939ME, and 5518ME which dealt with misalignment nonconformances. This item is considered resolved.

#### 4. Unresolved Items

Unresolved items were not identified during this inspection.

#### 5. Independent Inspection Effort (92706)

A question was raised concerning the potential overspraying of electrical wiring flame retardent coatings (containing halogen components) onto stainless steel piping.

St. Lucie 2 does not use a fire retarding coating for electrical wiring except in the penetration areas. The licensee stated that Quelpyre Mastic 703B was used in these areas. A review of the vendor information revealed that this compound contains no chlorine or other halogen compounds.

#### 6. Safety Related Pipe Support and Restraint Systems (50090)

The inspector performed a sampling reinspection of the dimensions, clearances, and welds, including a review of QC inspection records, for the following pipe supports/restraints:

Multiple Support Restraint (Following three supports/restraints were supported by one steel structure)

- Support/Restraint No. SI-2401-31 in the Safety Injection System
- Support/Restraint No. CC-2062-6220 in the Component Cooling System
- Support/Restraint No. CSH-19 in the Containment Spray System

Saddle Support/Restraint

- Support/Restraint No. SI-2410-98 in the Safety Injection System

Fixed Pipe Support/Restraint

- Support/Restraint No. CC-2068-2 in the Component Cooling System
- Support/Restraint No. CC-2073-492 in the Component Cooling System
- Support/Restraint No. SI-2412-115 in the Safety Injection System

Dynamic Pipe Support/Restraint

- Support/Restraint No. BF-4004-182 in the Boiler Feedwater System
- Support/Restraint No. BF-4004-38 in the Boiler Feedwater System
- Support/Restraint No. BF-4004-32 in the Boiler Feedwater System
- Support/Restraint No. MS-4102-216A in the Main Steam System

The inspector found that on final inspected support/restraint No. SI-2401-31 one of the clearances between the pipe lug and structural support member measured approximately 1/4" while the drawing requirement was 1/8" maximum. This is a further example of the discrepancies described in violation 389/82-71-01.

Within the areas inspected, no new violations or deviations were identified.

7. Safety Related Structures (Welding) - Review of Quality Records (55065, 55066)

The inspector selected sections from the main steam trestle (for both the A and B loops) where welding, testing, and QC inspection activities had been completed for a review of welding quality records. The records were reviewed for the following:

- Inspection records covering visual and dimensional inspection
- Weld history records
- Heat treatment records covering preheat and interpass temperature, post weld control, stress relief and total time at temperature, as applicable
- NDE records covering evaluation of quality of welds (by RT, MT, etc.), including correlation of records to specific weld
- Weld repair records covering defect removal technique used, defect removal verification, nondestructive examinations, heat treatment, and final acceptance of repairs, as appropriate
- Welding material control records (welding rod, flux, electrode and gas)
- Welder qualification records
- Inspector qualification records relative to welding activities

The structural steel was largely fabricated by Lakeside Steel Company and the licensee performed two welds to complete the structure. The following listing is a sample of the records reviewed for clarity, completeness and accuracy:

Loop A-Structure No.18-1

- Receiving Inspection Report No. R-78-1083 Contract No. C9132
- Weld Inspection Report H-15 Report No. 28
- Weld Test Reports for heat or lot numbers 520J1AE, H3325 (for vendor welds) and 92019A000, 92020A000, and 412L8271 (for licensee welds)
- Weld Travelers 19906 and 19911
- Weld Repair Requests - two for weld No. STL-G838-223, WRR Nos. 261 and 524
- Welder Qualification Records for IES, ICM and IBC
- Inspector Qualification Records for RGT, JLS and KB

Loop B - Structure No. 18-2

- Receiving Inspection Report No. R-78-1083 Contract No. C9132
- Weld Inspection Report H-15 Report No. 35
- Weld Test Reports for heat or lot numbers H3326, 37T (for vendor welds) 92021A000, 92054A004, and 92054A002 (for licensee welds)
- Weld Travelers 19907 and 19910
- Weld Repair Requests - three for weld No. STL-G838-227, WRR Nos. 1052, 1173, and 1279
- Welder Qualification Records for ICA, IFC and IEE
- Inspector Qualification Records for LMM, KB and JOB

The inspector reviewed the following three audits in the area of safety-related welding:

- QAC-PSL-2-79-09, Welding and Heat Treatment Control
- QAC-PSL-2-80-08, Welding Control
- QAC-PSL-2-80-48, Fabrication and Erection of Structural Steel

Within the areas inspected, no violations or deviations were identified.

8. Inspector Followup Items (92701)

(Closed) Inspector Followup Item 389/82-20-03, Control of Combustible Materials. During a walk-thru inspection of various sections of the St. Lucie 2 plant, the inspector did not see any open combustible material such as acetone in areas where grinding or welding was being performed. This condition no longer appears to be a problem and this item is considered closed.