



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

Report No.: 50-302/85-31

Licensee: Florida Power Corporation  
3201 34th Street, South  
St. Petersburg, FL 33733

Docket No.: 50-302

License No.: DPR-72

Facility Name: Crystal River 3

Inspection Conducted: August 12-16, 1985

Inspector:

*N. Economos*  
N. Economos

*9-9-85*  
Date Signed

Approved by:

*J. J. Blake*  
J. J. Blake, Section Chief  
Engineering Branch  
Division of Reactor Safety

*9-9-85*  
Date Signed

SUMMARY

Scope: This routine, unannounced inspection entailed 40 inspector-hours on site in the areas of inspector action on previous enforcement matters; inspector identified follow-up items; review and evaluation of ISI data, including hydrostatic test results and eddy current examination of once through steam generator tubes.

Results: No violations or deviations were identified.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*P. F. McKee, Plant Manager
- \*W. Johnson, Nuclear Plant Engineering Superintendent
- \*C. G. Brown, Nuclear Outage and Modification Assistant
- \*K. R. Wilson, Supervisor, Site Nuclear Licensing
- \*W. L. Rossfeld, Site Nuclear Compliance Manager
- \*J. C. Hicks, Manager, Material Technology
- \*J. Derrico, Material Technology Specialist
- W. G. Neuman, III, Nuclear ISI Specialist
- \*S. M. Baggett, Welding Engineer
- J. May, Welding Engineer

#### Other Organizations

- Fluor Mechanical Services (FLUOR)
- B. E. Drake, Welding Engineer

#### NRC Resident Inspector

- \*T. Stetka, Senior Resident Inspector

#### \*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on August 16, 1985, with those persons indicated in paragraph 1 above. The licensee was informed of the inspection findings listed below, which were discussed in detail. No dissenting comments were received from the licensee.

(Open) Unresolved Item (UNR) 50-302/85-31-01: Qualification of Level II Radiographer - paragraph 5.

(Open) Violation 50-302/85-17-01: Control of Field Welding Activities - paragraph 3.

(Closed) UNR 50-302/85-17-02: Control of Filler Metal - paragraph 3.

(Closed) Inspector Followup Item (IFI) 50-302/85-17-03: Eddy Current Inspection of OTSG "B" Tubes - paragraph 7.

(Closed) UNR 50-302/84-26-07: Review of Licensee's Contractual Relationship with Onsite Contractor to Determine Welder Qualification Requirements, paragraph 3.

(Closed) IFI 50-302/85-23-03: WPS Thickness Range - paragraph 7.

(Closed) IFI 50-302/85-23-05: Post Weld Heat Treat Program Inconsistencies - paragraph 7.

(Closed) UNR 50-302/85-26-03: ISI Hydrotesting - paragraph 3.

The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters (92702)

a. (Closed) UNR 50-302/85-17-02: Control of Filler Metal.

In response to the concerns on this matter documented in Reports 50-302/85-17 and 50-302/85-23, the licensee had committed to undertake certain programmatic and procedural changes to clarify and streamline the welding program. These changes were documented in Interoffice Correspondence memorandum S/N WPB 85-0044 from W. M. Johnson to W. L. Rossfield dated July 12, 1985. In general, the changes provide for the following:

- (1) Formulation and implementation of a single procedure that controls welding for the principal site maintenance contractor (currently Fluor) and the FPC Maintenance Department.
- (2) Formulation and implementation of a single procedure that addresses filler metal control for all organizations providing welding services at CR-3.
- (3) Construction of a new issue station for welding consumables. The new issue station will be ready for use by December 31, 1985.

Based on these measures and the increased controls already in force in this area, the inspector closed this UNR item. The inspector will continue to monitor welding activities more closely in future inspections to assure implementation of these measures.

b. (Open) Violation 50-302/85-17-01: Control of Field Welding Activities

The licensee's letter of response dated July 3, 1985, has been reviewed by the staff. However, the response indicated certain steps necessary to complete the corrective action(s) were still in progress with the final results to be submitted to Region II by supplement on or about September 3, 1985. The inspector reviewed only those corrective actions which had been completed. Therefore, this item remains open pending review of the supplemental response by the staff.

- c. (Closed) UNR 50-302/84-26-07: Review of Licensee's Contractual Relationship with Onsite Contractor to Determine Welder Qualifications

This matter was examined in great detail and the results documented in RII Report 50-302/85-17. In an effort to settle the concern over the propriety of the transfer of welder performance qualification records from the previous maintenance contractor's (Catalytic) documents to FPC, who is the "repair organization" in accordance with ASME Section XI IWA-4300 requirements, the licensee (FPC) has taken the following actions:

- (1) Weld records dating back to the termination of Catalytic's contract on/or about March 1984 were reviewed. It was determined that sixteen (16) welders were involved in the transition.
- (2) Records were provided to show that all 16 welders had maintained their proficiencies in all qualified processes as required by ASME Section IX.
- (3) Five of the 16 welders were identified as pipefitters and therefore qualified to weld ANSI B31.7 safety-related piping. Radiographs of the first production welds, following the changeover, were reviewed for four out of the five welders and found to meet ASME Section IX acceptance standards. The fifth welder had been used as a foreman and did not maintain his qualifications. He will be requalified in the test shop to ASME Section IX requirements.
- (4) The qualifications of the remaining (11) welders who are used to weld ANSI B31.1 power piping were transferred under its provisions of paragraph 127.5.3B, Qualification of Welders and Welding Operators. Provisions in this paragraph allow an employer to accept another employer's welder qualifications provided the qualifications were performed on piping using the same or equivalent procedure(s) wherein the essential variables are within the limits established by Section IX of the ASME Code.

This item is closed.

- d. (Closed) UNR 50-302/85-26-03: ISI Hydrotesting

This item was identified based on the senior resident inspector's concern that ISI hydrostatic tests were conducted with the test engineer and the test leak examiner who evaluated the test results being one in the same person. The inspector interviewed the individual involved in the hydrostatic test, reviewed his qualifications to ascertain compliance with applicable code, ASME Section XI, requirements, and discussed the concern with the senior resident inspector. In that observing and accepting results of this activity is comparable to a nondestructive examination, where, in accordance with code and/or regulatory requirements, a certified individual may perform a test and

interpret/evaluate, within prescribed acceptance criteria, the test results. Therefore, the inspector found that the licensee had not violated regulatory requirements.

#### 4. Unresolved Items (92701)

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. New unresolved items identified during this inspection are discussed in paragraph 5.

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

##### Certification of NDE Personnel

Part of the review of corrective actions to violation 50-302/85-17-01, Control of Field Welding Activities, included a review of radiographic records and related certifications of NDE personnel involved in the activity. The licensee's FSAR requires personnel performing NDE to be qualified in accordance with ASNT-TC-1A, Recommended Practice, 1975 Edition.

Within these areas, the inspector noted that the resume' of one individual, certified by FPC as a Level II radiographer, indicated that he worked as a radiographer's assistant for one month, February/March 1982, and eight (8) months March to November 1982 as a radiographer for Curtis McKnight Testing Laboratory. The resume' briefly described the type of work performed, but provided no objective evidence to indicate whether the work experience involved ASME/ANSI Code radiography or whether the individual had been certified under a written program, equivalent to ANST, by his previous employer. The individual was hired by FPC, and after taking and successfully passing the written examination on April of this year, was certified as a Level II radiographer. At this level, he was authorized to radiograph safety related welds and interpret the film to ANSI B31.7 acceptance standards. The individual recently left the employment of FPC.

After reviewing these records, the inspector discussed with the licensing representative the apparent lack of work experience/qualification of this individual and expressed concern over the apparent programmatic laxity which allows that type of experience to be adequate for interpreting and, by definition, having the authority to accept/reject code safety-related welds he radiographed. The licensee's Level III examiner agreed, by telephone on August 23, to try and obtain objective evidence on the individual's work experience in order to demonstrate the necessary equivalency at the Level II position.

This item is identified as unresolved item 50-302/85-31-01 until the inspector reviews the objective evidence and the certification program in more detail.



## 6. Inservice Inspection - Observation of Work and Work Activities (73753)

### a. Primary System Pressure Test

By memorandum to H. R. Denton, dated October 3, 1984, the licensee requested and received permission to use the 1980 Edition of ASME Section XI which allows the use of reactor coolant as the pressurizing medium.

At the time of this inspection the test had been completed. As an alternative to observation, the inspector discussed the activity with cognizant personnel, reviewed the code required records and reviewed the applicable procedures listed below:

VA-009, Rev. 0 - Visual Acceptance Criteria of System Testing per ASME Code Section XI.

VT-012, Rev. 0 - Visual Examination of Hydrostatic Testing per ASME Code Section XI.

MTAP-7 - Certification of NDE Personnel Procedures and Contractors in Accordance with ANSI 45.2.6 and ASME Code Section XI.

SP-204, Rev. 9 - Class 1 System Hydrotesting for ISI Inspection.

These procedures and records were reviewed to ascertain whether test requirements and/or parameters were consistent with the applicable code in the following areas: pressure and temperature, holding time, pressure and temperature increase rates, sources of detected leakage located, evaluation and appropriate corrective measures taken, pressure and temperature measuring instruments identified and calibrated.

Within these areas, no violations or deviations were identified.

### b. Eddy Current Inspection of Once Through Steam Generator (OTSG) Tubes

This work effort is a followup to that documented in Report 50-302/85-17. The governing code for this eddy current (EC) examination was ASME Section XI 1980 Edition including addenda through the winter of 1980. A review of the records disclosed that approximately 80 tubes were examined in OTSG "A" for information only and 1300 tubes in OTSG "B". The examinations in OTSG "B" were conducted from the outlet side of the steam generator. These examinations were conducted to the maximum extent practical, as discussed in paragraph 7.a. of this report.

The eddy current data were generated using the MIZ-12 analog data format with a .500" diameter probe being utilized in both "A" and "B" steam generators. The examination frequencies for defect detection were 600, 400, and 200 KHZ differential and, 35 KHZ absolute for sludge and debris detection in accordance with procedure ISI-416 Rev. 9. The 200 and 400 KHZ signals were mixed to enhance the detection of indications at the tube support plates and the secondary face of the tube sheets.

Within these areas, the inspector reviewed the data to ascertain whether the following were consistent with applicable code requirements: identification of equipment, application of maximum sensitivity, material permeability determination and documentation, examination or method, calibration of equipment, extent of tube examination, delineation of acceptance criteria and documentation of results.

The inspection report indicated that eight (8) tubes in OTSG "B" exhibited indications measuring  $<20\%$  through wall dimension. No tubes requiring plugging because of through wall degradation were identified.

Within the areas of examination, no violations or deviations were identified.

## 7. Inspector Followup Items (92701B)

### a. (Closed) IFI 50-302/85-17-03: Eddy Current (EC)

Inspection of OTSG "B" Tubes. This item was identified out of concern that the tube-end damage on the inlet side of OTSG "B" would preclude the entire EC examination of the tubes in this generator as required by Technical Specifications (TS)/Code. Because of this potential violation, the licensee issued NCOR 85-53 and requested relief from NRR. The inspector reviewed NRR's approval and the change to TS 4.4.5.4a.8.

### b. (Closed) IFI 50-302/85-23-03: WPS Thickness Range

This item was identified when the inspector noted that certain procedure qualification records (PQRs), used to document qualification of welding procedure specifications (WPSs), did not support the full thickness range listed. The licensee had indicated that other PQRs existed to support thickness ranges indicated. During this inspection, the licensee provided the amended WPSs and supporting PQRs for evaluation and review. This item is closed.

- c. (Closed) IFI 50-302/85-23-05: Post Weld Heat Treat Program Inconsistencies

This item was identified when the inspector noted that FPC's procedure W-50 "Control of Preheat Interpass and Postweld Heat Treatment," used to control preheat and postweld thermal treatments, was not consistent with referenced codes. The inspector discussed the issue with the licensee's representative who provided a copy of procedure W-50, Rev. 3, with appropriate revisions to indicate compliance with applicable code(s) for review. This item is closed.