



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

Report No.: 50-302/84-25

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 20 - 24, 1984

Inspector:

*N. Economos*  
N. Economos

*9/4/84*  
Date Signed

Approved by:

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

*9/4/84*  
Date Signed

SUMMARY

Scope: This routine, unannounced inspection entailed 35 inspector-hours on site in the areas of licensee event report followup, inspector action on previous enforcement matters, and inspector identified follow-up items.

Results: No violations were identified.

8410230090 840907  
PDR ADDCK 05000302  
G PDR

## REPORT DETAILS

### 1. Licensee Employees Contacted

- \*R. F. McKee, Nuclear Plant Manager
- \*V. R. Roppel, Nuclear Plant Engineering and  
Technical Services Manager
- \*G. L. Boldt, Nuclear Plant Operations Manager
- \*W. L. Rossfeld, Site Nuclear Compliance Manager
- \*S. Powell, Senior Nuclear Licensing Engineer
- \*K. Lancaster, Manager, Site Nuclear QA
- J. E. Colby, Manager, Site Nuclear Engineering
- K. R. Wilson, Supervisor, Site Nuclear Licensing
- \*M. I. Clary, Site Nuclear Engineer, Mechanical
- \*W. A. Clemons, Nuclear Compliance Specialist
- H. LaGross, Master Mechanic

Other licensee employees contacted included engineers, records personnel, technicians, and office personnel.

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on August 24, 1984, with those persons indicated in paragraph 1 above.

### 3. Licensee Action on Previous Enforcement Matters (92701B)

- a. (Closed) Unresolved Item (UNR) 81-10-01, Liquid Penetrant Applicable Code and Acceptance Criteria. A copy of the Applicable NES Specification, 80A1487, Rev. 5, was provided for review. This revision reflected changes to the acceptance criteria for P/T inspections. This revision makes the specification compatible with ASME III NF 5352 requirements and the applicable P/T procedure (Lackenby QCP 9.3, Rev. 1) used to inspect the spent fuel storage rack welds.
- b. (Closed) Inspector Followup Item (IFI) 81-10-02, NDE Personnel Certifications. Qualifications of Lackenby's NDE personnel who performed and evaluated liquid penetrant inspections on spent fuel storage rack welds were on file. Qualifications records of level II P/T examiners were selected at random and were reviewed for compliance with ASNT-TC-1A specification requirements.
- c. (Closed) UNR 82-15-11, Unretrieved Welding Records. Receiving inspection records and certified material test reports for the welding consumables identified under this item were on file. These documents were reviewed for accuracy, completeness, and compliance with applicable code requirements.

- d. (Open) Violation 82-03-01, Failure to Retrieve Construction Radiographs. Supplemental response dated August 3, 1982, states that in order to assure that the apparent loss/misplacement of safety-related weld radiographs in the scope of the NSSS Erection Contract are not of generic concerns, Florida Power Corporation will conduct an audit of those systems affected. This audit will be conducted within sixty (60) days after the record retrieval indexing of these welds are completed. The indexing should be completed by March 30, 1983. The licensee's report for an audit performed between February 24 - April 28, 1983, indicates that a random review of the revised indexing system verified that it was being implemented and that an in-depth audit would be conducted in this area in the near future. It is the inspector's understanding that this audit has not been performed as yet and that the licensee is making arrangements to conduct the audit discussed in the August 3, 1982 response. This item will remain open until a Region II inspector reviews results of this audit.
- e. (Closed) IFI 82-03-05, Cause of Seal Package Weld Failure. On January 29, 1982. The licensee reported identifying a leak of less than 1 gpm emanating from a small crack in the weld between the third stage cavity and a 3/4" vent pipe in the RC pump - "A" seal package. This event was identified as NCOR-82-25 and by LERs 82-004/OIT-0 and 82-004. A liquid penetrant examination showed the crack was located in the fusion line of the weld. Subsequently, the joint was analyzed and it was determined that the failure resulted from mishandling during installation. As part of the corrective action, the licensee revised installation procedure MP-165 to stress the importance of proper handling during seal installation.
- f. (Closed) Violation 82-32-01, Failure to Meet ASME Code Welder Performance Qualification Requirements. The licensee's letters of response dated February 9, 1983, and April 8, 1983, have been reviewed and determined acceptable by Region II. The inspector held discussions with the Nuclear Compliance Manager and examined the corrective actions as stated in the letters of response. The inspector concluded that the licensee had determined the full extent of the subject noncompliance, performed the necessary follow-up actions to correct the present conditions, and developed the necessary corrective actions to preclude recurrence of the unsatisfactory records storage conditions. The corrective actions identified in the letters of response have been implemented.
- g. (Closed) Violation 83-14-01, Failure to Meet ASME Code Volumetric Examination of Pipe Welds, IWB/IWC-2520 Requirements. The licensee's letters of response dated July 12, 1983 and December 16, 1983, have been reviewed and determined acceptable by Region II. The inspector held discussions with the Nuclear Compliance Manager and examined the corrective actions as stated in the letters of response. The inspector concluded that the licensee had determined the full extent of the

subject noncompliance, performed the necessary follow-up actions to correct the present conditions, and developed the necessary corrective actions to preclude recurrence of the unsatisfactory records storage conditions. The corrective actions identified in the letters of response have been implemented.

- h. (Closed) UNR 83-14-02, Welding Interpass Temperature and Purge Gas Verification. This item was identified because even though the applicable welding specification, procedure, and weld data sheets used in the fabrication of certain welds addressed the above attributes, there was no objective evidence to verify that field welds were fabricated within specified limits. To correct this problem, the licensee revised the applicable weld data sheet form and procedure CP-106 to require adequate documentation.
- i. (Closed) UNR 83-14-03, Pressurizer Support to Shell Lugs with Code Rejectable Indications. The U/T examination of the pressurizer support to shell lugs revealed code rejectable indications in the weld area of lugs with figure numbers B2.8.7, B2.8.9 and B2.8.11. These required the examination to be expanded to eventually include all eight lugs which when examined from the lug side of the joint produced similar results. B&W, Lynchburg evaluated the results and performed fracture mechanics analysis which was documented in report numbers 32-1142673-00 and 32-1146214-00. By memorandum dated July 8, 1983, B&W advised the licensee that their analysis has shown the lug welds were acceptable.
- j. (Closed) IFI 83-14-04, U/T Examination of Specimen Sample Holder (SSH), Bolts. During the previous outage (IV), the licensee performed a U/T examination on the SSH bolts. Upon completion of the examination, the licensee determined that out of the 72 bolts examined, 16 exhibited some degree of cracking. The licensee removed four bolts, two with and without cracks, for further examination and failure analysis. Recently, B&W completed the investigation and the results were documented in Report BAW-1842, 8/84 Evaluation of Internal Bolting Concerns in 177-FA Plants. The report concluded that the failure mechanism and the most probable cause of bolt failures was intergranular stress corrosion cracking.

#### 4. Unresolved Items

Unresolved items were not inspected.

#### 5. Follow-up of Licensee Identified Items (92700)

(Closed) Licensee Event Report (LER) 84-001, Rev. 1, Reactor Building Containment Penetration not Designed in Accordance with FSAR.

During a refueling outage (May 1983), the end cap of spare penetration #353 in the reactor containment building was incorrectly cut off. Subsequently, a plant modification package (MAR 83-05-25-01) was issued to replace the end cap. A routine review of the modification package on January 13, 1984, by the licensee, discovered several design specifications that were inconsistent with FSAR commitments. The licensee attributed personnel error as the cause of this event in that both the design engineer (on contract to Florida Power Corporation) and the verification engineer (a Florida Power Corporation employee) failed to follow applicable engineering procedures. The licensee performed a local leak rate test on the penetration (July 2, 1983) and subsequent engineering evaluation (January 1984) indicated that the end cap will perform its intended safety function under the worst case LOCA conditions. On the basis of this data, the licensee planned to continue operation with the as-built penetration until the next refueling outage (March 1985). Results of a subsequent engineering evaluation concluded that the penetration was acceptable "as is" for the remainder of plant life.

The inspector discussed this matter with cognizant personnel and reviewed the documentation of the identified deficiencies and their dispositions. Also, the inspector reviewed material quality records, weld data sheets, nondestructive test result records, and personnel qualifications.