UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-302/75-11

Licensee: Florida Power Corporation
3201 34th Street, South
P. O. Box 14042
St. Petersburg, Florida 33733

Facility Name: Crystal River 3
Docket No.: 50-302
License No.: CPPR-51
Category: B1

Location: Crystal River, Florida

Type of License: B&W, PWR, 2452 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: August 26-29, 1975

Dates of Previous Inspection: August 6-8, 1975

Principal Inspector: K. W. Whitt, Reactor Inspector
Facilities Section
Facilities Test and Startup Branch

Accompanying Inspector: R. F. Rogers, Reactor Inspector
Engineering Section
Facilities Test and Startup Branch

Other Accompanying Personnel: None

Principal Inspector: R.C. Lewis for 9/12/75
K. W. Whitt, Reactor Inspector Date
Facilities Section
Facilities Test and Startup Branch

Reviewed By: R.C. Lewis 9/12/75
R. C. Lewis, Senior Reactor Inspector Date
Facilities Section
Facilities Test and Startup Branch

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

SUMMARY OF FINDINGS

I. Enforcement Matters

There were no items of noncompliance identified during the inspection.

II. Licensee Action on Previously Identified Enforcement Matters

There were no previously identified enforcement matters requiring resolution.

III. New Unresolved Items

None

IV. Status of Previously Identified Unresolved Items

75-4/1 Design Change Control

Corrective action has been completed for discrepancies that were identified in the program for handling design changes during the test phase. This item is closed. (Details I, paragraph 2)

75-4/2 Improper Machining of Pistons in Colt Industries (Fairbanks-Morse) Diesel Generators (ROB 74-16)

The inspection and evaluation of the potential problem in the machining of diesel generator pistons has been completed. No discrepancies were identified. This item is closed. (Details I, paragraph 3)

75-4/4 Preoperational Test Procedure Review

Comments resulting from the review of preoperational test procedures have been resolved. This item is closed. (Details I, paragraph 4.a)

75-8/1 Preoperational Test Results

Comments resulting from the review of the results of two tests have been resolved. This item is closed. (Details I, paragraph 5)

75-8/2 Preoperational Test Procedure Review

One general comment which resulted from the review of preoperational test procedures has not been resolved. This item remains open. (Details I, paragraph 4.b)

V. Unusual Occurrences

None

VI. Other Significant Findings

A. Project Status

The fuel load date has been advanced from May to March 1976. The licensee reported that Construction is 95% complete and approximately 41% of the overall test program has been completed. In order to support the new fuel load date, the following key test start dates have been tentatively established:

1. Primary System Hydrostatic Test - October 5, 1975

2. Containment Leak Rate Test - December 4, 1975

3. Hot Functional Testing - December 18, 1975.

B. Organizational Changes

1. The project manager organization has been finalized. The Project Manager reports to the Senior Vice President, Systems Engineering and Operations. A project team has been appointed which will report to the Project Manager. The team members represent the various functional areas presently active on site. Each member is the head of his respective function. The functional areas are construction, testing, controller, operations, quality and environmental, data, and engineering.

2. The Assistant Vice President, Quality and Environmental and those departments reporting to this position now report to the Vice President and General Council. The assistant Vice President formerly reported to the Senior Vice President, Systems Engineering and Operations.

3. The position of Plant Operations Supervisor is presently vacant due to the death of Mr. J. K. Jinkenson who had held the position for approximately one year.

C. Performance Testing of the Sodium Thiosulfate Reactor Building Spray System

A drawdown test is planned to determine the flow rate from the sodium thiosulfate and sodium hydroxide tanks relative to the flow rate from the borated water storage tank. This item remains open. (Details I, paragraph 6)

D. Defective Westinghouse Type OT-2 Control Switches (IEB 75-6)

The licensee has indicated that the switches referenced in IEB 75-6 are not in use in safety related systems at Crystal River 3. This item is closed. (Details I, paragraph 8)

VII. Management Interview

A management interview was held at the conclusion of the inspection on August 29, 1975. The findings of the inspection were discussed. The following licensee personnel participated:

J. Alberdi - Project Manager
E. E. Froats - Manager, Site Surveillance
J. C. Hobbs, Jr. - Manager, Generation Testing
R. W. Slater - Quality Engineer

DETAILS I

Prepared by: R. C. Lewis for 9/11/75
K. W. Whitt, Reactor Inspector Date
Facilities Section
Facilities Test and Startup Branch

Dates of Inspection: August 26-29, 1975

Reviewed by: R. C. Lewis 9/11/75
R. C. Lewis, Senior Reactor Inspector Date
Facilities Section
Facilities Test and Startup Branch

1. Individuals Contacted

Florida Power Corporation (FPC)

J. Alberdi - Project Manager
J. C. Clapp - Manager, Site Quality Surveillance Audits
E. E. Froats - Manager, Site Surveillance
J. C. Hobbs, Jr. - Manager, Generation Testing
M. H. Kleinman - Director, Quality Programs
D. A. Morrison, Jr. - Nuclear Operator
C. R. Pope - Administrative Manager
A. P. Vogt - Manager, Test Procedures
R. W. Slater - Quality Engineer

2. Design Change Control

This unresolved item (75-4/1) was identified in IE Report No. 50-302/75-4, Details I, paragraph 3, and subsequently discussed in IE Report No. 50-302/75-8, Details I, paragraph 4. The revision of the quality assurance manual (QAM) has been completed. Quality Procedure (QP) 3.11, "Design Change Control," requires the Director, Generation Engineering, to coordinate with and receive approval from the architect engineer for safety related design changes or design changes involving changes to the FSAR. Where design changes involve changes to the nuclear steam supply system (NSSS), the NSSS vendor must also approve the change. Quality program policy procedure (Policy) 3.1 states that during the design and construction phase (This phase includes preoperational and startup testing), changes to the design require the same review and approval as the original design. Engineering Department procedures implement the QAM requirements.

When either the NSSS vendor or the architect engineer determines that a change to the FSAR is desirable, the FPC licensing group is so informed. FPC then reviews and evaluates the recommended change, and if they concur with the recommendation, an amendment to the FSAR is submitted to NRC. This item is closed.

3. Improper Machining of Pistons in Colt Industries (Fairbanks-Morse) Diesel Generators (ROB 74-16)

This unresolved item (74-4/2) was identified in IE Report No. 50-302/75-4, Details I, paragraph 7, and subsequently discussed in IE Report No. 50-302/75-8, Details I, paragraph 5. The inspection of the diesel generators has been completed. The results of the inspection indicate that all pistons in both generators had been properly machined. This item is closed.

4. Preoperational Test Procedure Review

a. Unresolved Item 75-4/4

This unresolved item was identified in IE Report No. 50-302/75-4, Details II, paragraph 2, and subsequently discussed in IE Report No. 50-302/75-8, Details I, paragraph 7. Action to resolve the comments which resulted from the review of fifteen preoperational test procedures has been completed. The inspector reviewed the corrective action during this inspection and has no further questions. This item is closed.

b. Unresolved Item 75-8/2

This unresolved item was identified in IE Report No. 50-302/75-8, Details II, paragraph 2. Two general comments and six specific comments resulted from the review of three preoperational test procedures. All the comments except one had been resolved at the conclusion of this inspection and the action taken by the licensee was reviewed during the inspection. The following general comment will remain outstanding:

There are no provisions to prevent safeguards systems pump runout either by use of valve throttling or flow restricting orifices that would provide protection against pump trips due to overload.

A licensee representative stated that this condition was being evaluated.

5. Preoperational Test Results Review

This unresolved item was identified in IE Report No. 50-302/75-8, Details I, paragraph 2. These comments involving changes to test procedures resulted from the review of the results of two tests. Corrective action to resolve these comments has been taken through inter-office correspondence dated July 28, 1975, from the manager, generation testing, to all testing superintendents. This correspondence contains the following instructions:

a. Continue to sequentially number and date minor and major changes to test procedures (TP) in the text of the TP, and when listing major or minor changes on the GT-41 form, follow the same numbering sequence and be certain to list the date of each change on GT-41.

b. Class I and II minor changes to TP's must be written and submitted on GT-41 forms so that approval of the test working group (TWG) and manager, generation testing is obtained as soon as possible but in no case later than 14 days after implementation.

c. Testing quality control will audit, regularly, the GT-41 forms to determine if trends or other problems exist in the manner or extent of changes implemented in TP's. The audit reports are to be submitted to the manager, generation testing.

This item is closed.

6. Possible Deficiency In The Performance of The Sodium Thiosulfate Reactor Building Spray System

This item was identified in IE Report No. 50-302/75-8, Details II, paragraph 4. FPC plans to conduct a drawdown test to determine whether the sodium thiosulfate and sodium hydroxide systems function as designed. The borated water storage tank, the sodium thiosulfate tank and the sodium hydroxide tank will be filled with water and then all trains of the low pressure injection system, high pressure injection system and containment spray system will be started to pump the water from the three tanks to the refueling canal. The relative levels of the tanks will be recorded and evaluated as appropriate. The procedure to be followed for this test is presently in draft form. The test is scheduled to be performed during the week of September 8, 1975. This item will remain open until the test has been conducted and the test results have been evaluated.

7. Verification of Review and Approval of Category II Test Procedures

Category II test procedures were reviewed on a sample basis to determine whether adequate testing is planned to satisfy regulatory guidance and licensee commitments. No discrepancies were identified during the review of approved procedures. However, approximately 30% of the procedures inspected had not been approved. The procedures that remain to be reviewed are:

a. TP 7 2 210 07, "Chemical Addition and Sampling System Hydro Test"

b. TP 7 2 210 02, "Chemical Addition and Sampling System Electrical Test"

c. TP 7 2 210 03, "Chemical Addition and Sampling System Electrical Test"

d. TP 7 2 320 01, "ICS Preoperational Calibration"

e. TP 7 2 320 02, "ICS Open Loop Calibration"

f. TP 7 2 330 01, "CRD Control System Preoperational Calibration"

g. TP 7 2 330 02, "CRD Control System Operational Test"

h. TP 7 2 330 03, "CRD Mechanism Functional Test"

i. TP 7 2 330 04, "CRD Integrated Test"

j. TP 7 2 330 05, "CRD Trip Test"

k. TP 7 2 452 01, "Communications System Electrical Test"

l. TP 7 2 452 02, "Communications System Functional Test"

8. Defective Westinghouse Type OT-2 Control Switches (IEB 75-6)

FPC has advised Region II by letter dated June 17, 1975, that no Westinghouse Type OT-2 electrical switches are in use or planned for future use in safety related systems at Crystal River 3. This item is closed.

DETAILS II

Prepared by: R. F. Rogers 9/8/75
R. F. Rogers, Reactor Inspector Date
Nuclear Engineering Section
Facilities Test and Startup Branch

Dates of Inspection: August 26-29, 1975

Reviewed by: H C Dance 9/8/75
H. C. Dance, Senior Reactor Inspector Date
Nuclear Engineering Section
Facilities Test and Startup Branch

1. Personnel Contacted

R. Slater - Quality Engineer
C. Pope - Administrative Manager
J. Hobbs - Manager Generation Testing

2. Review of Preoperational Test Program

A review was conducted of 68 of the approximately 200 Class I and Class III test procedures to determine compliance with Regulatory Guide 1.68 and FSAR Section 13.2.5. Tests were selected to be representative of the total scope of the test program. For the selected tests, it was verified that a procedure existed which was properly reviewed and approved by plant personnel. Approximately one-third of the procedures selected had not yet been approved for use. These procedures will be inspected when approved.

3. Review of Preoperational Test Procedures

The following procedures were reviewed for consistency with the requirements of Regulatory Guide 1.68 Appendix C,"Preparation of Procedures" and FSAR Table 13-1,"Prefueling Test Summary." The inspector had no further comment on these tests.

TP 71 200 04 Reactor Coolant System Hydro
TP 71 600 05 Chemical Addition and Sampling System Operational Test
TP 71 600 14 Pipe and Component Hanger Hot Inspection Test
TP 71 310 03 ES Detection and Actuation Test

4. Review of Preoperational Test Results Evaluation

The inspector attempted to review selected procedures to assure that the licensee was performing an adequate evaluation of test results; however, only 17 of the approximately 325 preoperational tests have been reviewed by the plant staff. None of the procedures selected had yet been reviewed. This area will be deferred to a subsequent inspection.