



UNITED STATES
 ATOMIC ENERGY COMMISSION
 DIVISION OF REGULATORY OPERATIONS
 REGION II - SOUTH
 230 PEACHTREE STREET, NORTHWEST
 ATLANTA, GEORGIA 30303

TELEPHONE 434-2500

RO Inspection Report No. 50-302/73-10

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, Announced

Dates of Inspection: October 10-12, 1973

Dates of Previous Inspection: September 20-21, 1973

Principal Inspector: M. S. Kidd, Reactor Inspector
 Facilities Test and Startup Branch

Accompanying Inspector: W. W. Peery, Radiation Specialist
 Radiological and Environmental Protection Branch

Principal Inspector: M. S. Kidd 10/12/73
 M. S. Kidd, Reactor Inspector
 Facilities Test and Startup Branch
 Date

Reviewed by: C. E. Murphy
 C. E. Murphy, Chief
 Facilities Test and Startup Branch
 Date

W. W. Peery

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SUMMARY OF FINDINGS

- I. Enforcement Matters
 - A. Violations

None
 - B. Safety Items

None
- II. Licensee Action on Previously Identified Enforcement Matters

Not applicable.
- III. New Unresolved Items

73-10/1 Preoperational Environmental Monitoring Program

The preoperational environmental monitoring program, as implemented, does not appear to meet the intent of the program description in Section 2.6 of the FSAR. (Details II, paragraph 2)
- IV. Status of Previously Identified Unresolved Items

Not applicable.
- V. Unusual Occurrences

None
- VI. Other Significant Findings

None
- VII. Management Interview

A management interview was held at the conclusion of the inspection October 12, 1973. The following persons attended:

Florida Power Corporation (FPC)

Generation Construction Department

H. L. Bennett - Director, Generation Construction
J. C. Hobbs, Jr. - Superintendent, Mechanical and Electrical Systems

Generation Engineering Department

J. C. Clapp - Manager, Quality Surveillance Audits
P. G. Davis - Manager, Power Testing
B. E. Holmes - Engineer, Generation Environmental and Regulatory Affairs
R. W. Slater - Site Quality Engineer

Production Department

J. Alberdi - Nuclear Plant Superintendent
G. P. Beatty - Production Staff Engineer
D. W. West - Chemistry and Radiation Protection Engineer

Gilbert Associates Incorporated (GAI)

J. D. Green - Testing QA Coordinator

University of Florida (UF)

J. C. Locher - Project Manager, Radiological Surveillance

A. Preoperational Test Program

The inspector discussed his findings on this item. Details are given in Details I, paragraph 4. The licensee commitments discussed in the referenced paragraph were reaffirmed.

B. Test Procedure Comments

The general comments on test procedures given in Details I, paragraph 5, were discussed. Management positions were reiterated.

C. Preoperational Environmental Monitoring Program

The results of the inspection in this area were discussed. Details are given in Details II, paragraph 2. The unresolved item in Section III of this report summary was discussed with a licensee representative via telephone October 16, 1973, who stated that FPC would revise the FSAR to reflect the program as implemented.

DETAILS I

Prepared by: M. S. KiddM. S. Kidd, Reactor Inspector
Facilities Test and Startup Branch10/25/73
Date

Dates of Inspection: October 10-12, 1973

Reviewed by: C. E. MurphyC. E. Murphy, Chief
Facilities Test and Startup Branch11/1/73
Date1. Personnel ContactedFlorida Power Corporation (FPC)

H. L. Bennett - Director, Generation Construction
P. G. Davis - Manager, Power Testing
R. W. Slater - Site Quality Engineer
E. E. Croats - Manager, Site Surveillance
J. Alberdi - Nuclear Plant Superintendent
W. P. Stewart - Assistant Plant Superintendent

Gilbert Associates, Incorporated (GAI)

J. Green - Testing QA Coordinator

2. Personnel Changes

R. W. Slater, previously assigned as an engineer II, electrical, in the site quality assurance (QA) group, has replaced D. E. Pedrick as site quality engineer. Slater joined FPC in June of 1973 after approximately ten years of QA work in the aerospace industry. Pedrick transferred to the production department and is assigned as compliance engineer on the staff of the nuclear plant superintendent.

3. QA Program For Testing

Gilbert Associates Incorporated (GAI) has been hired as an independent QA contractor for the preoperational test program. The staff will consist of two men initially, increasing to five or more as needed. GAI will perform formal preplanned audits of testing activities as well as random inspections. FPC Generation Quality and Standards personnel will also audit and inspect, but on a less frequent basis.

Discussions with GAI personnel revealed that procedures and checklists needed for audits and inspections were being developed and should be ready for use in the near future.

The inspector was also informed that the FPC QA manual was being completely revised and that approximately thirty implementing procedures for the operational QA program were being written. The manual should be revised within three months.

4. Review of the Preoperational Test Program

The organization and administrative controls for the preoperational test program for Unit 3 was discussed with licensee personnel. Discussions centered around Section 13 of the Unit 3 Final Safety Analysis Report (FSAR) and the Test Program Guide (TPG) and covered all facets of testing from development of test procedures to review and approval of test results.

The FPC Manager, Power Testing, is directly responsible for the test program. Three power test supervisors report to him and assist in the development and administration of the test program.

Test procedures are being written by FPC engineering, test, and operating personnel, Babcock and Wilcox (B&W), and GAI. All procedures are written to a common format. Review and approval of test procedures is described by Figure 13-3 of the FSAR. All test procedures are grouped into three classes as defined by Section 13.2.5 of the FSAR, Class I being a test to demonstrate proper operation or physical integrity of a nuclear safety related system. The inspector asked licensee personnel why hydrostatic tests on safety systems were not Class I. A licensee representative stated that they would be changed from Class II to Class I. Class II includes indirectly safety related tests, while Class III tests are those on non-safety related systems.

The inspector asked what documents defined controls over equipment being released from construction for testing. He was informed that a new appendix to the TPG entitled "Transition Control Document" would cover items such as checking for completion of construction, proper tagging, the turnover of QA documentation, etc. Also the FPC safety clearance procedure provides certain controls in this area.

The Manager, Power Testing, approves the release of test procedures for field testing. Testing will be accomplished using FPC test, construction and operations personnel under the supervision of the power test supervisors.

Revisions to test procedures are discussed in Section 2.7.1 of the TPG. The inspector asked if the definitions of minor and major changes could be clarified. A licensee representative stated that examples of these changes would be given. Minor revisions can be made with the approval of the responsible power test supervisor, whereas a major change requires the same review and approval as the original procedure received.

Deficiencies found in procedures or equipment during testing are recorded on a test deficiency sheet which will be part of the test package. Deficiencies are reviewed by the Test Working Group (TWG) and corrective actions, including retesting where appropriate, are taken by this group.

Test instrument control is defined by Appendix 2 of the TPG. In discussing controls over temporary test devices such as electrical and mechanical jumpers and bypasses, a licensee representative stated that a detailed implementing procedure for control of temporary test devices would be written and included in the TPG as Appendix 5.

Review and approval of test results is discussed in Section 2.6 of the TPG and Figure 13-4 of the FSAR. The inspector asked what mechanism existed for reducing voluminous test data into meaningful form for review. He was informed that this would be accomplished by the power test supervisor before review by the TWG. The TPG will be revised to reflect this function.

The above commitments regarding reclassification of hydrostatic tests, clarifying major and minor changes to procedures, and development of a transition control document and a control document for temporary test devices were reiterated during the management interview.

5. Review of Test Procedures

Four draft preoperational test procedures were reviewed and resulting comments discussed with licensee personnel. The procedures discussed were:

TP 170.10, "Diesel Generator Rooms 3A and 3B Ventilation Systems Functional Test"

TP 201.01, "Core Flooding System Hydrostatic Test"

TP 201.02, "Core Flood System Electrical Test"

TP 201.03, "Core Flooding System Functional Test"

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Comments on the first three procedures above were of the following nature:

- a. Spaces for initials and dates should be provided beside the steps in the prerequisites section of each procedure.

Licensee personnel agreed with the comment and stated that spaces would be added and that all other procedures would be checked to assure that all had such spaces.

- b. Certain steps lack details in the instructions given for performing a given function. For example, step 7.7 of TP 201.01 states that system instrumentation which will not withstand the test pressure must be isolated, but does not define what instrumentation this is.

Licensee personnel were in general agreement with the specific examples discussed and stated that details would be added where a need is recognized.

In addition to the two general comments above, other comments were given on TP 201.03 as follows:

- a. The procedure provides an option of using temporary piping to demonstrate the flow path from the core flood tank to the reactor. The inspector questioned the desirability of using temporary piping.

A licensee representative stated that this would be studied.

- b. The identification numbers of the core flood tanks used throughout the procedure appear to be incorrect.

A licensee representative stated that these would be corrected.

- c. The procedure does not check the actuation point of the tank low pressure alarm. Also, it instructs the user to check the point at which the low pressure alarm clears by reducing tank pressure.

A licensee representative stated that the procedure would be revised to correct these problems.

DETAILS II

Prepared by: W. W. Peery
W. W. Peery, Radiation Specialist
Radiological and Environmental
Protection Branch

10/12/73
Date

Dates of Inspection: October 10-12, 1973

Reviewed by: J. T. Sutherland
J. T. Sutherland, Chief, Radiological
and Environmental Protection Branch

10/12/73
Date1. Individuals Contacted

- J. Alberdi - Nuclear Plant Superintendent
- H. J. Bennett - Director, Generation Construction
- G. P. Beatty - Production Staff Engineer
- B. E. Holmes - Engineer, Generation, Environmental and Regulatory Affairs
- D. W. West - Chemistry and Radiation Protection Engineer
- J. C. Lochamy - Project Manager, Environmental Study Contract, University of Florida

2. Pre-Operational Radiological Environmental Monitoring Program

- a. The licensee's pre-operational radiological environmental monitoring program has been contracted to the University of Florida, Department of Environmental Engineering for the on-site program and the off-site program contracted to the State of Florida Department of Health and Rehabilitative Services (Radiological and Occupational Health Section) under a grant arrangement. Some overlap exists between the two programs. The scope of this inspection included an examination and discussion with the licensee of the FSAR commitments on the pre-operational environmental monitoring program, examination of data and inspection of various on-site and off-site monitoring stations.
- b. It is implicit in the licensee's FSAR, Section 2.6, Site Environmental Radiological Monitoring Program, that the pre-operational environmental monitoring program delineated therein will be performed up to operation of Crystal River, Unit 3, after which the operational environmental monitoring program will be initiated. In Florida Power Corporation's Environmental Status Report, published April 1973, fourth quarter 1972 and first quarter of 1973 it is stated on Page 4 in the section covering the University of Florida pre-operational monitoring program that marine and marshland sampling was completed in October 1972, freshwater sampling completed in 1972 and terrestrial completed in the spring of 1973. The licensee's position is that this was the intent of the sampling program. It was pointed out to licensee management that this intent does not clearly coincide with that contained in the FSAR which does not speak to completion of any phase of the program prior to the start of reactor operation.

On October 16, 1973, this item was discussed with a licensee representative who stated that the Florida Power Corporation (FPC) will revise the FSAR to reflect the program as implemented.

- c. The examination of data available at the site revealed a number of omissions, conflicts and errors. Additional data brought to the plant site by personnel from the FPC home office in St. Petersburg, Florida and University of Florida personnel from Gainesville, Florida were examined and discussed with these personnel. The data included raw computer data and this along with refined data from the Florida Department of Health and the University of Florida appeared to satisfy the basic data needs for the pre-operational environmental monitoring program. Licensee representatives noted the remaining omissions, conflicts or errors and stated that the omissions and errors will be corrected in a needed complete re-compilation of data from the program and conflicts clarified in the revision to the FSAR to be made by FPC as stated in paragraph b. above. Management was informed that the understanding had been reached with licensee personnel that the minor errors and omissions will be corrected and they agreed. Minor conflicts, other than the one referred to in paragraph b. above, were enumerated and management agreed that these also would be included in the revision of the FSAR for clarification.
- d. The inspection of sampling stations and equipment revealed them to be as represented in the FSAR and in a state of good order with apparent satisfactory operation of equipment.

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Files

Florida Power Corporation
Crystal River 3

OCT 30 1973

RO Inspection Report No. 50-302/73-10

cc w/encl:

H. D. Thornburg RO

RO:HQ (5)

DR Central Files

Regulatory Standards (3)

Directorate of Licensing (13)

J. R. Lundy, L

cc encl. only:

*PDR

*Local PDR

*NSIC

*DTE, OR

*State

*To be dispatched at a later date.