



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

Report No. 50-302/84-06

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

Docket No.: 50-302

License No.: DPR-72

Facility Name: Crystal River Unit 3 Nuclear Generating Plant

Inspection near Crystal River, Florida

Inspectors: John F. Rogge, for 4/4/84
 Y. F. Stetka Date Signed

John F. Rogge 4/4/84
 J. F. Rogge, February 15-17, 1984 Date Signed

Approved by: V. Panciera 4/4/84
 V. Panciera, Chief, Project Section 2B Date Signed
 Division of Projects and Resident Programs

SUMMARY

Inspection on January 31 - February 24, 1984

Areas Inspected

This routine inspection involved 86 hours on site by the resident inspector and project engineer in the areas of plant operations, security, radiological controls, Licensee Event Reports and Nonconforming Operations Reports, NUREG Q737-TMI Action Plan and licensee action on previous inspection items. Numerous facility tours were conducted and facility operations observed. Some of these tours and observations were conducted on back shifts.

Results

One deviation was identified: (Failure to complete corrective actions as described in the response to an NRC violation, paragraph 3.)

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DETAILS

1. Persons Contacted

- *G. Boldt, Operations Manager
- *J. Bufe, Compliance Specialist
- *R. Carbiener, Compliance Specialist
- R. Clarke, Plant Health Physicist
- *J. Colby, Site Nuclear Engineering Manager
- *M. Collins, Nuclear Safety & Reliability Superintendent
- *J. Cooper, Site QC Manager
- *M. Harmon, Administration Manager
- E. Howard, Director, Site Nuclear Operations
- *J. Jendro, Public Information Coordinator
- *W. Johnson, Acting Maintenance Superintendent
- *T. Kamann, Records Manager
- J. Kraiker, Operations Superintendent
- *M. Mann, Compliance Specialist
- *S. Mansfield, Compliance Supervisor
- *P. McKee, Plant Manager
- *R. Murgatroyd, Assistant Maintenance Superintendent
- *S. Primo, ISI Specialist
- *S. Robinson, Nuclear Waste Manager
- *V. Roppel, Assistant Engineering and Technical Services Manager
- *B. Rossfeld, Compliance Manager
- *R. Thompson, Licensing Engineer
- *D. Spires, Compliance Specialist
- *K. Wilson, Site Nuclear Licensing Supervisor

Other personnel contacted included office, operations, engineering, maintenance, chem/rad and corporate personnel.

*Present at exit interview

2. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on February 24, 1984. During this meeting, the inspector summarized the scope and findings of the inspection as they are detailed in this report. During this meeting, the violation and inspector followup item were discussed.

3. Licensee Actions on Previous Inspection Findings

(Closed) Unresolved Item (302/84-02-05): The inspector reviewed documentation providing certification that the licensee's consultant, PMA, has qualified personnel performing equipment vibration measurements. The inspector has no further questions on this item at this time.

(Closed) Inspector Followup Item (302/83-11-01): The licensee has established a program for the Engineered Safeguards (ES) actuation cabinets

to insure the ventilation filters are changed twice a month. The filter changing will insure these cabinets remain clean. The licensee has also established a "monitor watch" that will inspect the remaining safety-related cabinets to insure they remain clean.

(Closed) Unresolved Item (302/83-18-03): The licensee has determined that there is no valid reason for not starting Emergency Feedwater Pump (EFP) 2 upon loss of the "Y" bus and has revised procedure SP-416 to require starting of this pump. The inspector reviewed the revised procedure and the starting circuitry for EFP-2 to insure that both the original and revised SP-416 were and are in compliance with the Technical Specification (TS) surveillance requirements.

(Closed) Violation (302/83-29-01): The inspector verified the implementation of the corrective actions stated in the January 27, 1984, response letter and has observed use of the revised procedures and increased supervisory involvement during the performance of surveillance activities. These corrective actions should be effective to prevent recurrence of this violation.

(Closed) Inspector Followup Item (302/83-17-05): Procedures MP-122 and MP-132 were revised by deleting all pipe flange torquing instructions from MP-132 and adding this information to MP-122 thus incorporating all flange torquing information into one procedure. These changes should minimize confusion during use of these procedures in the field.

(Open) Violation (302/83-09-01): In the response letters dated June 16 and July 29, 1983, the licensee listed the immediate and future corrective actions that would be taken to correct the violation and prevent recurrence. The licensee further stated that full compliance (i.e., calibration of all IST related instrumentation) would be accomplished prior to plant startup for Operating Cycle 5. Plant startup for Cycle 5 occurred in July 1983.

The licensee has completed instrument classification, developed calibration frequencies, established administrative controls, and begun implementation of a computerized instrument calibration recall system. The licensee has not made it apparent to the inspector that all specified instruments have been calibrated and that systems subject to Inservice Inspection have been evaluated to determine if they were incorrectly assumed to be operable due to the use of uncalibrated instrumentation.

To verify completion of the instrument calibration, the inspector selected 68 instruments (reference paragraph 3 of NRC Inspection Report 50-302/84-02), and requested calibration records for these instruments. As of February 24, the licensee has been unable to locate 8 of the requested records; therefore no evidence has been provided to verify calibrations were performed.

To verify that an evaluation on system operability had been performed, the inspector requested documentation of such an evaluation. It appears that no documentation of such an evaluation exists and discussions with licensee representatives indicate that only a cursory review of selected instruments was performed. This review does not appear to have been an effective system operability evaluation.

Failure to complete corrective actions as described in a response to an NRC violation is considered to be a deviation from a commitment to the NRC.

Deviation (302/84-06-01): Failure to complete corrective actions as described in the response to an NRC violation.

4. Unresolved Items

There were no unresolved items identified during this inspection period.

5. Review of Plant Operations

The plant continued power operation (Mode 1) until 1:03 a.m. on February 21 when the plant was shutdown to hot standby (Mode 3) to add oil to a reactor coolant pump motor and replace a control rod position indicator tube. The plant returned to power operation at 1:06 a.m. on February 22 and continued in power operation for the remainder of the inspection period.

a. Shift Logs and Facility Records

The inspector reviewed records and discussed various entries with operations personnel to verify compliance to TS and the licensee's administrative procedures.

The following records were reviewed:

Shift Supervisor's Log; Reactor Operator's Log; Equipment Out-of-Service Log; Shift Relief Checklist; Auxiliary Building Operator's Log; Active Clearance Log; Daily Operating Surveillance Log; Work Request Log; Short Term Instructions and selected Chemistry/Radiation Protection Logs.

In addition to these record reviews, the inspector independently verified clearance order tagouts.

No violations or deviations were identified.

b. Facility Tours and Observations

Throughout the inspection period, facility tours were conducted to observe operations and maintenance activities in progress. Some operations and maintenance activity observations were conducted during backshifts. Also, during this inspection period, licensee meetings

were attended by the inspector to observe planning and management activities.

The facility tours and observations encompassed the following areas: Security Perimeter Fence; Control Room; Emergency Diesel Generator Room; Auxiliary Building; Intermediate Building; Battery Rooms; Electrical Switchgear Rooms; and Reactor Building.

During these tours, the following observations were identified.

- (1) Monitoring Instrumentation - The following instrumentation was observed to verify that indicated parameters were in accordance with the TS for the current operational mode:

Equipment operating status; Area, atmospheric and liquid radiation monitors; Electrical system lineup; Reactor operating parameters; and Auxiliary equipment operating parameters.

No violations or deviations were identified.

- (2) Safety Systems Walkdown - The inspector conducted a walkdown of the Emergency Diesel Generator (EDG) system to verify that the lineup was in accordance with license requirements for system operability and that the system drawing and procedure correctly reflect "as-built" plant conditions.

While preparing for the EDG walkdown the inspector noted that the drawing depicting the lubrication oil system was very difficult to read apparently due to the age of the print. Other EDG drawings were in a similar state, however the licensee has redrawn these drawings. This finding was discussed with licensee representatives. The licensee is pursuing a redraw of the EDG lube oil system print.

Inspector Followup Item (302/84-06-02): Review licensee progress in redrawing the EDG lube oil system print.

- (3) Shift Staffing - The inspector verified that operating shift staffing was in accordance with TS requirements and that control room operations were being conducted in an orderly and professional manner. In addition, the inspector observed shift turnovers on various occasions to verify the continuity of plant status, operational problems, and other pertinent plant information during these turnovers.

No violations or deviations were identified.

- (4) Plant Housekeeping Conditions - Storage of material and components and cleanliness conditions of various areas throughout the facility were observed to determine whether safety and/or fire hazards exist.

No violations or deviations were identified.

- (5) Radiation Areas - Radiation Control Areas were observed to verify proper identification and implementation. These observations included selected licensee conducted surveys, review of step-off pad conditions, disposal of contaminated clothing, and area posting. Area postings were independently verified for accuracy through the use of the inspector's own monitoring instrument. The inspector's use also reviewed selected radiation work permits and observed personnel use of protective clothing, respirators, and personnel monitoring devices to assure that the licensee's radiation monitoring policies were being followed.

No violations or deviations were identified.

- (6) Security Controls - Security controls were observed to verify that security barriers are intact, guard forces are on duty and access to the Protected Area (PA) is controlled in accordance with the facility security plan. Personnel within the PA were observed to insure proper display of badges and that personnel requiring escort were properly escorted. Personnel within vital areas were observed to insure proper authorization for the area.

No violations or deviations were identified.

- (7) Fire Protection - Fire protection activities, staffing and equipment was observed to verify that fire brigade staffing was appropriate and that fire alarms, extinguishing equipment, actuating controls, fire fighting equipment, emergency equipment, and fire barriers are operable.

No violations or deviations were identified.

- (8) Surveillance testing was observed to verify that approved procedures were being used; qualified personnel were conducting the tests; testing was adequate to verify equipment operability; calibrated equipment, as required, were utilized; and TS requirements were followed.

The following tests were observed and/or data reviewed:

- SP-110, Reactor Protection System Functional Testing;
- SP-201, Accessible/Inaccessible Hydraulic Snubbers Visual Inspection;
- SP-300, Operating Daily Surveillance Log;
- SP-317, Reactor Coolant System Water Inventory Balance;
- SP-333, Control Rod Exercises;

- SP-340, Emergency Core Cooling System (ECCS) Pump Operability; and,
- SP-421, Reactivity Balance Calculations.

No violations or deviations were identified.

- (9) Maintenance Activities - The inspector observed maintenance activities to verify that correct equipment clearances were in effect; Work Requests (WRs), and Fire Prevention Work Permits, as required, were issued and being followed; Quality Control personnel were available for inspection activities as required; and TS requirements were being followed.

Maintenance was observed and/or work packages were reviewed for the following maintenance activities:

- Replacement of a control rod drive rod position indicator in accordance with procedure MF-108;
- Installation of a cover on the turbine driven emergency feedwater pump speed control knob in accordance with Modification Approval Record (MAR) 84-01-04-01; and,
- Installation of an oil addition line for the motor on reactor coolant pump 1A in accordance with MAR T83-09-13-01.

No violations or deviations were identified.

- (10) Radioactive Waste Controls - Selected liquid and gaseous releases were observed to verify that approved procedures were utilized, that appropriate approvals were obtained, and the required surveys were taken.

No violations or deviations were identified.

- (11) Pipe Hangers and Seismic Restraints - Several pipe hangers and seismic restraints (snubbers) on safety-related systems were observed to insure that fluid levels were adequate and no leakage was evident, that restraint settings were appropriate, and that anchoring points were not binding.

During a tour of the reactor building on February 21, the inspector noted that snubber MUH-37 did not have a fluid level in the reservoir sight glass. Discussion with licensee representative indicated that the licensee has also observed the absence of a fluid level and had identified a leak on the sightglass. The sightglass was subsequently repaired. The licensee also identified a second snubber with a sightglass leak (MSH-124) and repaired same.

The licensee has continued with an ongoing visual inspection of hydraulic snubbers and has identified numerous instances of loss of fluid in reservoirs. These findings are being reviewed by NRC and are being tracked under Inspector Followup Item (302/83-16-02).

6. Review of Licensee Event Reports and Non-Conforming Operations Reports

- a. Licensee Event Reports (LERs) were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events, which were reported immediately, were reviewed as they occurred to determine if the TS were satisfied.

LERs 83-39 Revision 1 and 84-01 were reviewed in accordance with current NRC enforcement policy. LER 84-01 is closed. LER 83-39 remains open pending completion of revisions to the surveillance procedures for the reactor protection, non-nuclear instrumentation, and engineered safeguards systems that will provide an evaluation of total instrumentation string errors in lieu of individual component errors.

- b. The inspector reviewed Non-Conforming Operations Reports (NCORs) to verify the following: compliance with the TS, corrective actions as identified in the reports or during subsequent reviews have been accomplished or are being pursued for completion, generic items are identified and reported as required by 10 CFR Part 21, and items are reported as required by the TS.

All NCORs were reviewed in accordance with the current NRC enforcement policy.

No violations or deviations were identified.

7. NUREG 0737 - TMI Task Action Plan

On February 15, 1984, the inspectors attended a meeting to discuss the status of NUREG 0737 - TMI Task Action Plan items I.A.1.3, I.C.1, I.D.1, II.B.1, II.B.2, II.B.3, II.E.1.1, II.E.1.2, II.F.1.1, thru II.F.1.6, II.F.2, III.A.1.2, III.A.2.2 and III.D.3.4. This meeting was requested by NRR as part of a review of all Babcock and Wilcox type reactors. The scope was to encompass for each item a review of: 1) type system installed, 2) main elements of the system, 3) physical installation, 4) status of system testing, 5) procedure implementation, 6) training, 7) TS implementation; and the bases of any delays. Following the meeting a plant tour was conducted to review the accessible portions of the modifications.

Following the plant tour further inspection was made to verify licensee completion status of the below listed item to determine compliance with licensee commitments to NUREG 0737, and other documents.

II.B.1 (Open) Reactor Coolant System Vents - The licensee has installed high point vents at the top of the hot leg U-bends and at the top of the pressurizer. In a previous inspection (50-302/83-18) this item was inspected and found acceptable. As part of 10 CFR 50.44(c)(3)(iii) the licensee was required to also install a reactor vessel head vent or submit an exemption request. On July 21, 1983, an exemption was granted to extend the installation date of the reactor vessel head vent to the first scheduled outage of sufficient duration past December 31, 1985. This exemption will allow the licensee to demonstrate the acceptability of the current installation to support a permanent exemption or comply with the rule. Further inspection of this item will take place upon final resolution between NRR and the licensee on the requirements.

The following items were noted as ready for inspection and will be inspected in a future inspection.

II.B.3.2.B - Post Accident Sampling - Modifications

II.F.1.1 - Noble Gas monitor

II.F.1.2 - Iodine/Particulate Sampling

II.F.1.3 - Containment - High Range Radiation Monitor

II.F.1.4 - Containment - Pressure

II.F.1.6 - Containment - Hydrogen

III.D.3.4.2 Control - Room Habitability - Modifications

The following items were noted as not ready for closeout inspection due to the current status of completion.

I.D.1 - Control-Room Design Reviews

II.B.2.3 - Plant Shielding - Equipment Qualification

II.E.1.1 - Auxiliary Feedwater Evaluation

II.E.1.2 - Auxiliary Feedwater System Initiation and Flow

II.F.2.3B - Detection of Inadequate Core Cooling - Level Instruments

III.A.1.2 - Emergency Support Facilities - Final EOF, TSC and OSC

III.A.2.2 - Emergency Preparedness - Long Term

The remaining items listed below have been previously closed:

- I.A.1.3 - Shift Manning - IE Report 50-302/84-02
- I.C.1 - Accident and Emergency Procedure Revisions - IE Report 50-302/83-18
- II.B.2.2 - Plant Shielding-Modifications - IE Report 50-302/83-24
- II.F.1.5 - Containment-Water Level - IE Report 50-302/83-18