



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA ST., N.W., SUITE 3100
 ATLANTA, GEORGIA 30303

Report No. 50-302/82-10

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

Facility Name: Crystal River Unit 3 Nuclear Generating Plant

Docket No. 50-302

License No. DPR-72

Inspection at Crystal River site near Crystal River, Florida

Inspectors: *John F. Rogge, for* 6/17/82
 F. F. Stetka Date Signed

John F. Rogge, for 6/17/82
 B. W. Smith Date Signed

Approved by: *V. L. Brownlee* 6-18-82
 V. L. Brownlee, Section Chief, Division of Date Signed
 Project and Resident Programs

SUMMARY

Inspection on April 27 - May 25, 1982

Areas Inspected

This routine inspection involved 149 hours onsite by two resident inspectors in the areas of plant operations, security, radiological controls, Licensee Event Report (LER's) and Nonconforming Operations Reports (NCOR's), 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 recurrent violation was identified (Failure to adhere to the clothing requirements of a standing radiation work permit, paragraph 5.b.(5)).

DETAILS

1. Persons Contacted

Licensee Employees

- G. Boldt, Technical Services Superintendent
- *C. Brown, Nuclear Compliance Supervisor
- *J. Bufo, Compliance Auditor
- *Q. Dubois, Assistant Nuclear Plant manager
- M. Culver, Reactor Specialist
- W. Herbert, Nuclear Technical Specification Coordinator
- *V. Hernandez, Quality Control Auditor
- S. Johnson, Nuclear Technical Support Engineer
- W. Johnson, Operations Engineer
- T. Lutkehaus, Nuclear Plant Manager
- *S. Mansfield, Compliance Auditor
- P. McKee, Operations Superintendent
- G. Perkins, Health Physics Supervisor
- *G. Ruzala, Chemistry/Radiation Protection Manager
- D. Smith, Security and Special Projects Superintendent
- J. Lander, Maintenance Superintendent
- *E. Welch, Nuclear Computer and Controls Specialist

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

*Present at the exit interview

2. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on May 25, 1982. During this meeting, the inspectors summarized the scope and findings of the inspection as they are detailed in this report. During this meeting, the violation and inspector followup items were discussed.

3. Licensee Action on Previous Inspection Findings

(Closed) Inspector Followup Item (302/81-19-03): Relay test procedure QOP 30.0, Loss of Excitation Relay, G. E. Type CEH, was revised on December 21, 1981 to include the missing technical manual figure. The QOP now no longer refers to the technical manual for test completion.

(Closed) Inspector Followup Item (302/81-19-02): The licensee has incorporated all safety-related relay "Relay Data and Setting Sheets" into procedure PM-102, Protective Electrical Relays, as revision 1. Procedure PM-102 is reviewed by the Plant Review Committee (PRC) and has all applicable relay settings annotated on the data sheets.

(Closed) Inspector Followup Item (302/82-05-02): Procedure SP-300, Operating Daily Surveillance Log, was revised as revision 61 on May 13 to include an explanation of the operability criteria for the emergency feedwater flow instrumentation.

(Closed) Violation (302/81-21-02): The licensee originally denied this violation as discussed in their reply letters dated December 10, 1981 and January 25, 1982. As a result of discussions with the NRC Region II office on March 5, 1982, a Confirmation of Action letter was issued on March 10, 1982, in which the licensee agreed to adhere to the requirements of Technical Specification 3.7.12 with respect to the operability of fire doors and stationing of fire watches for inoperable fire doors. The inspectors have observed the licensee's implementation of these requirements and consider the actions of this item complete.

(Open) Inspector Followup Item (302/80-42-06): The licensee has initiated a work request (W/R) number 24171 to disassemble discharge check valve SWV-10 and inspect the valve internals for possible damage. This item remains open pending the results of this inspection.

(Open) Unresolved Item (302/82-02-06): The licensee has devised a system to insure that the Nuclear Shift Supervisor (NSS) is made aware of work resumption on work requests written for long term work items. The success of this system depends upon the Operations Planner providing the NSS with an up-to-date work schedule on a daily basis. While the licensee has implemented this system, its effectiveness remains to be determined. This item remains open pending the inspector's judgement of the effectiveness of this system.

(Open) Unresolved Item (302/82-02-09): The licensee has revised procedure SP-296 to provide an adequate method of tracking transient cycles and is presently reviewing previous records to ensure that all past transient cycles have been accounted for. This review is expected to be completed by December 1, 1982. This item remains open pending completion of this review.

(Closed) Inspector Followup Item (302/81-21-12): The licensee issued Deviation Modification Approval Record (MAR) 81-04-61, on April 2, 1981 that allowed continued use of fuel assembly NJ-0204 until October 30, 1981. This deviation MAR was based upon the nuclear steam supplier's (B&W) recommendation and safety evaluation that use of this fuel assembly in an unrodded core location was acceptable. On November 3, 1981 the licensee extended the applicability of MAR 81-4-61 to May 1, 1982 based again on B&W recommendations. This assembly is located in an unrodded core location in the new core. The inspector has reviewed this issue and verified core placement and has no further questions on this item at this time.

(Closed) Inspector Followup Item (302/81-21-09): The licensee completed replacement of Emergency Diesel Generator (EDG) 1B tachometer on February 2, 1982. The licensee's action on this item is complete.

(Closed) Violation (302/82-02-05): The licensee issued letters to contracted personnel (Catalytic, Inc) re-emphasizing the importance of procedure adherence and stating that disciplinary action will be taken if further violations of this nature occur. In addition, further instructions were given to licensee maintenance supervisors to insure that work is not performed without a properly completed work request unless an actual emergency existed. In the event that an emergency exists, maintenance personnel are to ensure that their senior shop supervisors are notified. The inspector reviewed that various letters and interviewed several personnel to assure that personnel had read and were aware of their responsibilities. The inspector also reviewed the licensee's computerized maintenance control system and discussed the responsibilities of the Operations Planning Coordinator with licensee personnel. It appears from these reviews and discussions that the licensee is controlling maintenance activities. The inspectors will continue to review this area during the routine inspection program.

(Closed) Inspector Followup Item (302/81-15-04): The modifications to the Cable Spreading Room floor were completed by the end of April, 1982. These modifications were performed in accordance with MAR 81-9-2 and Work Request 25335. The inspector reviewed the modification and toured the cable spreading room with contractor personnel to verify installation. The licensee's actions in this area are considered to be complete.

(Closed) Inspector Followup Item (302/82-05-14): The licensee has reset the reactor core quadrant power tilt alarm setpoints to insure that a computer alarm would occur prior to exceeding the Technical Specification limits.

(Open) Violation (302/81-23-03): The licensee is awaiting test results on the RTD's that were replaced during the refueling outage. Once the test results have been received and evaluated a decision will be made whether to continue RTD replacement/calibration every refueling or to seek T.S. relief on RTD calibration requirements.

(Closed) Inspector Followup Item (302/81-30-01): A Procedure Revision Request (PRR) has been approved for OP-401 which addresses CFV-14 and identifies its normal position. The inspector has no further questions on this item at this time.

(Closed) Inspector Followup Item (302/82-02-02): As evidenced by the operator identified snubber leaks in the past several weeks, operators have become sensitive and aware of the importance of identifying and initiating corrective action to fix leaking snubbers. The inspectors have no further questions on this item.

4. Unresolved Items

There were no unresolved items identified during this report period.

5. Review of Plant Operations

This inspection period commenced with the plant in Mode I, Power Operations, and continued in that mode until May 19 at 12:25 a.m., at which time the plant shutdown to Mode III, Hot Standby, in order to investigate an oil level problem with "D" reactor coolant pump. On May 21 at 8:40 a.m., the plant returned to Mode I, Power Operations, and continued in that mode for the duration of the inspection period.

a. Shift Logs and Facility Records

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

Shift Supervisor's Log; Reactor Operator's Log; Equipment Out-of-Service Log; Shift Relief Checklist; Control Center Status Board; Auxiliary Building Operator's Log; Chemistry/Radiation Log; Daily Operating Surveillance Log; Work Requests; and Short Term Instructions.

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

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 inspectors to observe planning and management activities.

The facility tours and observations encompassed the following areas:

Security Perimeter Fence; Control Room; Emergency Diesel Generator Rooms; Auxiliary Building; Intermediate Building; Reactor Building; Battery Rooms; and, Electrical Switchgear Rooms.

During these tours, the following observations were made:

- (1) Monitoring instrumentation - The following instrumentation was observed to verify that indicated parameters were in accordance with the Technical Specifications 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 discrepancies were noted in this area.

- (2) Safety Systems Walkdowns - The inspectors conducted walkdowns of the following safety systems to verify lineups were in accordance with license requirements for system operability:

Emergency Diesel Generator Air and Fuel Oil Systems; and Emergency Feedwater System.

No discrepancies were noted in this area.

- (3) Shift Staffing - The inspectors verified by numerous checks that operating shift staffing was in accordance with Technical Specifications requirements. In addition, the inspectors observed shift turnovers on different occasions to verify the continuity of plant status, operational problems, and other pertinent plant information was being accomplished.

No discrepancies were noted in this area.

- (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.

During a tour of the berm area the inspector noted a considerable amount of trash and debris near the reactor building equipment hatch area. The inspector informed the licensee of this observation and was told that action would be taken to clean up the area. Subsequent inspection of the area indicated acceptable housekeeping conditions. The inspectors have no further questions on this item.

- (5) Radiation areas - Radiation control area (RCA's) 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 inspectors 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.

As a result of these observations, the following violation was identified.

During a tour of the auxiliary building (AB) on May 5, 1982, the inspector observed a licensed operator enter a contaminated area to perform a valve positioning operation, wearing red cotton gloves and plastic booties. A short time later the inspector observed the same operator direct an auxiliary operator to enter another contaminated area, in order to perform a valve lineup,

wearing red cotton gloves and plastic booties. The inspector then reviewed the standing radiation work permit (SRWP) that delineated the radiological controls required for different operations in these contaminated areas. This review indicated that for valve positioning, full anti-contamination clothing dress-out was required which included coveralls, cotton liners, plastic booties, rubber boots, rubber gloves and cotton hood.

T. S. 6.11 requires that procedures prepared to meet the requirements of 10 CFR, Part 20 be adhered to for all activities involving personnel radiation exposure. Chemistry and Radiation Protection Procedure, RP-101, Section 4.8.2 requires an individual entering a contaminated area to wear proper clothing necessary for contamination control as specified by the SRWP or Chem/Rad personnel. Contrary to the above, two individuals were observed on separate occasions entering a contaminated area without the proper clothing specified on the SRWP. This is a violation.

Violation (302/82-10-01); Failure to adhere to the clothing requirements as specified on an SRWP.

During the inspection period of October 24 - December 22, 1981 (NRC Inspection Report 50-302/81-23), the licensee was cited for a similar violation. In their response to this violation the licensee stated that the contract employee was terminated, radiation work requirement training was continuing and that full compliance had been achieved. This recent violation occurred within a relatively short time of the completion of the licensee's corrective actions which indicates that the corrective actions were not effective. This recent violation is considered to be recurrent.

- (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 discrepancies were identified in this area.

- (7) Surveillance Testing - 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 Technical Specification requirements were followed.

The following tests were observed: SP-339, Engineered Feedwater system Operability Demonstration (steam-driven pump only); SP-310, Loose Parts Monitoring System Daily Check; SP-422, RC System

Heatup and Cooldown Surveillance; SP-421, Reactivity Balance Calculations (check of calculation results); SP-340, ECCS Pump Operability ("B train ES pumps); and SP-401, Control Rod Programming Verification (post maintenance testing for a replaced position indication tube).

During the performance of SP-349, the inspector noted that the Woodward Governor oil level was not required by the procedure to be checked and in fact was not checked by the operators doing the procedure. As a result of the inspector's observation, the licensee inspected the governor oil level and determined it to be low on oil but not enough to make the steam-driven emergency feedwater pump inoperable. Oil was added to the governor and restored to normal level. In addition, the licensee has revised SP-349 to require a check of this oil level during SP performance. The inspectors have no further questions on the item.

- (8) Maintenance Activities - The inspector observed maintenance activities to verify that: Correct equipment clearance were in effect; Work Requests (WR's), Radiation Work Permits (RWP's), and Fire Prevention Work Permits, as required, were issued and being followed; Quality Control personnel were available for inspection activities as required; and Technical Specification requirements were being followed.

The following maintenance activities were observed:

MP-121, Packing Replacement on Emergency Feedwater Pump; Work package review of NUV-292 Weld Repairs (high pressure injection pump recirculation line vent valve); PM-117 and PM-133, Inspection and Coupling Lubrication on Decay Heat Closed Cycle Cooling Water pump (DCP) 113, MP-108, Control Rod Drive Handling (for replacement of a control rod position indication tube); PM-133, Oil Addition to RCP-1D; and, MAR T82-04-10-01, Power Level Upgrade-Bypass RCPM Reactor Trip (observed installation of bypass jumpers on bistables).

As a result of these observations, the following item was identified:

During the post maintenance review of procedure MP-108 and its associated work request (W/R), the inspector noted that the post maintenance testing was not adequately specified on the W/R nor concurred in by the Nuclear Shift Supervisor (NSS). Discussions with the onshift NSS, however, revealed that a proper retest was conducted.

CP-113, Procedure for Handling and Controlling Work Requests, paragraph 5.3.6 requires the NSS to verify that the post-maintenance test adequately confirms the operability of safety-related equipment and to initial the W/R to demonstrate

this verification. The control rod position indication tubes are considered to be non-safety-related, however, they are required by the Technical Specifications to be operable. The operability of this equipment is verified by the performance of approved surveillance procedures. There is other equipment at this facility that is considered to be non-safety-related and is required by Technical Specifications to be operable (e.g., fire protection equipment) and therefore should have NSS review and concurrence for post-maintenance testing.

This issue was discussed with licensee personnel and the inspector's comments were acknowledged. The licensee will revise CP-113 to insure that all Technical Specifications required equipment and safety-related equipment post maintenance testing receives NSS review and approval.

Inspector Followup Item (302/82-10-02): Review the revision to CP-113 that will require NSS review and approval of post maintenance testing of all TS required equipment.

- (9) Operating Procedures - Operating Procedures (OP) use was observed to verify that:

Approved procedures were being used; qualified personnel were performing the operations; and technical specification requirements were being followed.

The following procedures were observed:

OP-211, Reactor Shutdown (completed procedure review); OP-304, Soluble Poison Concentration Control; OP-208, Plant Shutdown (completed procedure review); OP-204, Power Operation; OP-703, Plant Distribution System; OP-210, Reactor Startup; OP-203, Plant Startup; and OP-403, Chemical Addition System.

No discrepancies were identified in this area.

- (10) Radioactive waste controls - Selected liquid and gaseous radioactive releases were observed to verify that approved procedures were utilized, that appropriate release approvals were obtained, that required samples were taken, and that appropriate release control instrumentation was operable.

No discrepancies were identified in this area.

- (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 tours of the RB the inspector identified several leaking hydraulic snubbers. The snubbers were all repaired and returned to service. The snubber leaks were mainly confined to sight glass connections and nipples which did not render the snubbers inoperable. The inspectors have no further questions on this issue.

6. Review of Licensee Event Report and Non-Conforming Operations Reports (NCOR's)

- a. The inspector reviewed Licensee Event Reports (LER's) to verify that: The report accurately describes the event; The safety significance is as reported; The report satisfies requirements with respect to information provided and timeliness of submittal; Corrective action is appropriate; and, Action has been taken.

LER's 82-09, 82-19, 82-28, 82-29, 82-30, 82-31, 82-32, and 82-34 were reviewed. This review identified the following items:

- (1) LER 82-09 reported the failure of motor operated containment isolation valves MOV-259 and MOV-260 to close due to insufficient torque switch settings. To prevent recurrence of this event, the licensee increased the torque switch settings to just above the operating setpoint. This appears to be effective and has resulted in improved valve operation. The licensee has revised procedure MP-402, Maintenance of "Limitorque" Valve Controls to increase torque switch settings to within the manufacturers minimum and maximum settings. As additional revision to MP-402 will be made to adjust the torque switches to just above the operating point (though not exceeding the manufacturers maximum limit) to further assure valve operation.

Inspector Followup Item (302/82-10-03): Review revision to MP-402 to increase torque switch settings to just greater than the operation point settings.

- (2) LER 82-27 reported the failure of Emergency Diesel Generator (EDG) 1B to meet the required starting time criteria during surveillance testing. The licensee is conducting a study into the EDG starting criteria since it appears that the extended starting times are not due to failure of the EDG to start, but are instead due to extensive time delays in relays which indicate diesel starting. This study may include replacement of these relays with new "state-of-art" devices.

Inspector Followup Item (302/82-10-04): Review activities for improving the timing of the EDG starting sequence.

- (3) LER 82-19 reported the air start line failure for EDG 1B. This event was previously discussed in NRC Inspection Report

50-302/82-05, paragraph 6.b(5) and is being followed under inspector followup item (302/82-05-11).

- b. The inspector reviewed NCOR's to verify the following: Compliance with Technical Specifications; 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 Technical Specifications.

The following NCOR's were reviewed:

82-30	82-112	82-132
82-31	82-115	82-136
82-63	82-118	82-138
82-71	82-119	82-141
82-85	82-120	82-142
82-93	82-123	82-143
82-99	82-124	82-144
82-101	82-126	82-145
82-104	82-128	
82-108	82-129	

As the result of this review the following item was identified:

NCOR 82-126 reported that a contaminated cart was found in the turbine building (a clean area) without proper radiological controls and that personnel using the cart were found to be contaminated. The cart was contaminated to 40000 DPM/100 CM² smearable and 1.5MR/hr fixed. An individual was contaminated to 2000 DPM.

The cart was returned to the radiation control area (RCA), the individual was decontaminated and surveys were conducted in other areas to verify that a contamination spread did not occur.

The licensee will issue a memorandum to personnel notifying them of this event.

Inspector Followup Item (302/82-10-05): Review memorandum issued to inform personnel of the contaminated cart event of 5/3.