



## Florida Power

CORPORATION  
Crystal River Unit 3  
Docket No. 90-302

May 23, 1997  
3F0597-29

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D. C. 20555-0001

Subject: NRC Notice of Violation, Integrated Inspection Report No. 50-302/97-02,  
NRC to FPC letter, 3N0497-26, dated April 21, 1997

Dear Sir,

In the subject letter, Florida Power Corporation (FPC) received Notices of Violation. In response to a request from Mr. R. E. Grazio of FPC on May 21, 1997, an extension of the response due date to May 23, 1997, was approved by Mr. K. D. Landis, NRC Region II Office. This correspondence provides our response to the Violations.

Sincerely,

John Paul Cowan  
Vice President, Nuclear Production

JPC/JPB

Attachments

cc: Regional Administrator, Region II  
NRR Project Manager  
Senior Resident Inspector

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ATTACHMENT 1

**VIOLATION 50-302/97-02-01**

Technical Specification (TS) 5.6.1.1. Procedures, requires that written procedures be established, implemented, and maintained for the activities recommended in Appendix A of Regulatory Guide 1.33. Quality Assurance Program Requirements, Revision 2, February 1978. This includes procedures required for the operational alignment and control of safety-related equipment.

1. Operating Procedure (OP) 404, Decay Heat Removal System, Revision 104, requires Nuclear Services Cooling System Vent Valve RWV-73 to be closed for normal operations.
2. Procedure OP-414, Nitrogen and Hydrogen Systems, Revision 34, requires Valve NGV-313 to be open for normal operations.
3. Procedure OP-411, Instrument and Station Air System, Revision 53, requires the valves in the instrument air flow path to Makeup System (MU) Valve MUV-243 to be in the open position for normal operations. Procedure OP-402, Makeup and Purification System, Revision 90, requires MUV-243 to be in the open position for normal operations.
4. Procedure OP-411, Instrument and Station Air (SA) System, Revision 53, requires Station Air Valve SAV-49 to be in the open position for normal operations.
5. Procedure OP-422, Turbine Building Sump Oil-Water Separator, Revision 8, requires Vent Valves SDV-107, 108 and 109 to be closed for normal operations. Section 4.2, Fill and Vent, requires the manipulation of SDV-107, 108, and 109 as vent isolation valves.
6. Surveillance Procedure (SP) SP-607, Fire Damper Inspection, Revision 18, Step 4.4, requires the restoration of fire damper (FD) power links for FD-47 and FD-83 to the closed and connected position.
7. Procedure OP-408, Nuclear Services Cooling System, Revision 84, requires Spent Fuel Cooler A Outlet valve SWV-23 to be sealed and throttled two turns open and Spent Fuel Cooler B Valve SWV-24 to be sealed and throttled two and 1/8 turns open for normal plant operations.

Contrary to the above, in the following seven examples, the licensee failed to accomplish activities affecting quality in accordance with procedures to control equipment for normal operating conditions:

1. On January 24, 1997, Nuclear Services Cooling System Vent Valve RWV-73 was opened and left open by an operator verifying an idle Decay Heat system heat exchanger was filled per Surveillance Procedure (SP) 306, Weekly Surveillance Log, Revision 13. It was not discovered until a pump start approximately five hours later resulted in water flowing from the valve.
2. On January 26, 1997, nitrogen system pressure instrument isolation valve NGV-313 was found incorrectly in the closed position, isolating the downstream gage.
3. On January 24, 1997, air isolation to the Makeup System Valve MUV-243, Prefilter 2A Outlet, was found incorrectly in the closed position. The valve was closed without any procedural controls or documentation to isolate an air leak.
4. On January 28, 1997, station air header drain Station Air Valve SAV-49 was found incorrectly in the closed position. The valve was closed without procedural controls or documentation to isolate a leaking downstream solenoid valve.
5. On March 7, 1997, oily water separator tank Vent Valves SDV-107, 108, and 109 were found in the open position. The valves had been opened and left open to allow the use of an alternate vent path not delineated by OP-422, Section 4.2.
6. On March 21, 1997, fire damper (FD) power links for FD-47 and FD-83 were found open during surveillance testing after the dampers failed to actuate.
7. On March 28, 1997, Nuclear Services Closed Cycle Cooling Valve SWV-24 was found in a throttled position less than two and 1/8 turns open. A plant operator then removed a valve position seal and throttled SWV-24 open to increase flow to 600 gpm to the inservice spent fuel pool (SFP) cooler B. The operator did not verify SWV-24 was throttled open two and 1/8 turns and subsequent verification revealed it was not. Valve SWV-23 was also found in a throttled position less than the required two turns open.

#### **ADMISSION OR DENIAL OF THE ALLEGED VIOLATION**

Florida Power Corporation (FPC) agrees with the violation.

### **REASON FOR VIOLATION:**

The documented mispositioning events resulted from poor work practices, insufficient field supervision and procedure deficiencies with CP-115, "Nuclear Plant Tags and Tagging Orders", CP-113A, "Work Request Initiation and Work Package Control" and OP-422, "Turbine Building Sump Oil-Water Separator."

### **DISCUSSION**

Florida Power Corporation recognizes the need to improve configuration control. Several initiatives are currently in progress which will result in significant improvement in this area. The most important of these initiatives is the configuration control improvement action plan for Operations. This comprehensive plan includes provisions for increased supervisory presence in the field to improve oversight of the operating crews, and improvements to the equipment tagging program.

Insufficient supervisory presence in the field has resulted in instances of inadequate self-checking and inattention to detail not being recognized and corrected. Florida Power Corporation has taken steps to increase supervisory presence in the field. In addition, actions are being taken to minimize the administrative burden on the Shift Supervisor to allow the Shift Supervisor to spend more time observing activities outside the control room. Florida Power Corporation has brought in experienced Senior Reactor Operators to facilitate in evenly distributing the work load.

### **CORRECTIVE ACTIONS TAKEN**

The following specific corrective actions have been taken:

1. Components were subsequently positioned in accordance with approved procedures or appropriately tagged for configuration control.
2. A configuration control improvement action plan has been developed by Operations to improve performance in the area of configuration control.
3. A site wide configuration management standdown was held April 21, 1997 to discuss the importance of configuration management and communicate lessons learned. Four separate personnel errors associated with a previous NRC violation (ARV-1 event) were discussed at the standdown. Three other examples of errors related to configuration management were also reviewed at the standdown and included discussions on the use of the Equipment Alteration Log and the importance of valve positions to the operator.

4. A required reading Operations Study Book Item 9704.05 was issued to reinforce the importance of configuration control and the role of the Operations Department.
5. A night order was issued to ensure the expectation for significant supervisory presence in the field is understood.
6. OP-422, "Turbine Building Sump Oil-Water Separator" was revised to designate an alternate vent path.

**CORRECTIVE ACTIONS THAT WILL BE TAKEN:**

1. The Operations department has evaluated administrative duties performed by the Shift Supervisor to identify unnecessary detractors from the Shift Supervisor's ability to observe activities outside the control room. Some administrative tasks such as second review of shift operator logs have been reassigned to work control center supervisors. Of approximately 80 tasks identified, about 25 percent can be performed by clerical staff. These will be reassigned by June 30, 1997.
2. A revision is in progress to CP-115, "Nuclear Plant Tags and Tagging Orders." This revision simplifies the process and eliminates conflicts with CP-113A, "Work Request Initiation and Work Package Control."
3. Classroom and on the job training will be provided by July 7, 1997, to appropriate personnel on the revised clearance process.
4. Configuration control principles and operating experience will be added to both the licensed and non-licensed operator requalification programs by July 7, 1997.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:**

Florida Power Corporation is in full compliance.

**VIOLATION 50-302/97-02-03**

Crystal River Technical Specifications (TS) 5.6.1.1, Procedures, requires written procedures be established, implemented, and maintained covering the activities recommended in Appendix A of Regulatory Guide (RG) 1.33. Quality Assurance Program Requirements (Operational) Revision 2, dated February 1978. Appendix A procedures for fire in the control room or forced evacuation of the control room.



Final Safety Analysis Report (FSAR) Section 7.4.6.5 states in part that the design basis for the remote shutdown system is 10 CFR 50, Appendix R, Section L, and 10 CFR 50, Appendix A, Criterion 19. FSAR Section 7.4.6.5 further states that the design basis for remote shutdown assumes a loss of offsite power. FSAR Section 9.8.6 states that plant procedures developed in accordance with 10 CFR 50, Appendix R, Sections III.G and III.L establish means to bring the plant from operating to cold shutdown.

Section III.L of Appendix R of 10 CFR 50, states, in part, that procedures shall be in effect to implement the capability of being able to take the plant to cold shutdown within 72 hours following main control room evacuation due to a fire.

Contrary to the above, as of March 21, 1997, adequate procedures were not in effect to meet the requirements of 10 CFR 50, Appendix R, Section III.L, in that Abnormal Procedure AP-990, Shutdown From Outside Control Room, Revision 8, and Operating Procedure OP-209, Plant Cooldown, Revision 87 (used either separately or in conjunction with each other) did not provide adequate instructions for taking the plant from hot standby to cold shutdown following main control room evacuation due to a fire. These procedures contained steps to take the plant to hot standby and then directed operations personnel to maintain the plant in hot standby until a specific cooldown plan and procedures were developed.

#### **ADMISSION OR DENIAL OF THE ALLEGED VIOLATION**

Florida Power Corporation (FPC) agrees with the violation.

#### **REASON FOR THE VIOLATION**

The reason for the violation was FPC's misunderstanding of 10 CFR 50, Appendix R, Section III.L requirements.

Based on FPC's previous understanding of the requirements and their basis, FPC developed a procedure to achieve stable hot standby conditions from the remote shutdown panel, for fire scenarios requiring evacuation of the main control room. This procedure directed that a specific cooldown procedure be developed by Technical Support Center staff (Emergency Plan response personnel) based on equipment availability following an actual fire. A fire study analysis had been performed to demonstrate that based on the maximum credible control room fire, adequate equipment would remain available (or could be repaired) to achieve cold shutdown within the required 72 hour time frame. FPC considered this approach as meeting Appendix R, Section III.L.1 requirements and on July 13, 1985, FPC issued abnormal procedure AP-990, (Shutdown From Outside Control Room).

During the period of July 29, 1985 through August 2, 1985, the NRC performed an on-site inspection in the areas of fire protection and reviewed the licensee's actions

regarding the implementation of the requirements of 10 CFR 50, Appendix R, Sections III.G., III.J., III.L., and III.O. The results of this inspection were summarized in Report No. 50-302/85-30. Item 7.d of the report reviewed AP-990, and OP-209, (Plant Cooldown) to verify that the Appendix R Section III. requirements relating to achieving and maintaining hot standby conditions, providing decay heat removal capabilities, and achieving and maintaining control shutdown conditions, were being satisfactorily implemented.

The NRC inspection determined that the operations procedures using the remote shutdown panel could be used successfully to bring the plant to a safe condition.

Following NRC Inspection 85-30, revisions to AP-990 have been primarily limited to updating to a new writers guide format. Subsequently, FPC erroneously believed that CR-3 was in compliance with the requirements of 10 CFR 50 Appendix R, Section III.

#### **CORRECTIVE ACTIONS THAT HAVE BEEN TAKEN**

The plant is currently in cold shutdown, the end point condition for Appendix R, Section III.L fire scenarios. A revision of AP-990 to provide specific guidance for achieving cold shutdown conditions following a fire requiring evacuation of the control room has been identified as Restart Issue, OP-19-A.

#### **CORRECTIVE ACTIONS THAT WILL BE TAKEN**

AP-990 will be revised and issued prior to entering Mode 4 to provide specific guidance to achieve cold shutdown following a fire which requires evacuation of the control room.

To ensure compliance with Appendix R requirements, the administrative control process AI-400, for reviewing and approving revisions to emergency and abnormal procedures is being revised to require an Appendix R review. The revised procedure will be issued by June 27, 1997.

#### **DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Full compliance will be achieved prior to entering Mode 4.

#### **VIOLATION 50-302/97-02-04**

Technical Specifications surveillance requirement (SR) SR 3.3.5.2 for Engineered Safeguards Actuation System (ESAS) instrumentation requires that a channel functional test of ESAS be performed once every 31 days.

Technical Specifications SR 3.3.5.3 for Engineered Safeguards Actuation System instrumentation requires that a channel calibration be performed once every 24 months.

Technical Specifications SR 3.8.1.10 Electrical Power Systems, AC Sources Operating requires that a test of load shedding from emergency buses on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated Engineered Safeguards (ES) actuation signal be performed once every 24 months.

- a. Contrary to the above, prior to April 12, 1996, the licensee did not perform the channel functional test of the auto reset function for ES blocks 4 and 6 load sequencing relays.
- b. Contrary to the above, prior to October 22, 1996, the licensee did not perform the channel calibration and channel functional test for two contacts in each of the three ESAS Low Pressure bistables and for two contacts in each of the three ESAS Low Low Pressure bistables in the ESAS Reactor Coolant System Pressure - Low and Low Low actuation circuits.
- c. Contrary to the above, prior to April 12, 1996, the licensee did not perform testing for load shedding of EFP-1 when EGDG-1A is supplying the ES bus and ES actuation signal is present.

#### **ADMISSION OR DENIAL OF THE ALLEGED VIOLATION**

Florida Power Corporation (FPC) agrees with the violation.

#### **REASON FOR THE VIOLATION**

The examples in this violation were identified by FPC in LERs 96-11 and 96-25 which involved three instances where safety related circuits were not being tested. These deficiencies were found as part of CR-3's detailed review of Generic Letter 96-01. The reason the contacts were not being tested was due to human error in that personnel responsible for procedure preparation and review did not fully identify or ensure that all circuits that should be tested were included in the procedure.

In the case of the ES Block and ESAS Logic, these circuits appear to be excluded from the specific wording of the ITS surveillance requirement, however these circuits do meet the intent of the requirement and should be tested in accordance with ITS.

#### **CORRECTIVE ACTIONS THAT HAVE BEEN TAKEN**

The respective System Engineer reviewed the deficiencies and confirmed the findings of the Generic Letter 96-01 review.



The surveillance procedure was revised to include the correct testing requirements and was successfully performed.

Training has been provided to procedure writers, design engineers, and system engineers on including testing provisions in designs, including the whole circuit and the procedures that perform ITS testing.

**CORRECTIVE ACTIONS THAT WILL BE TAKEN**

Generic Letter 96-01 reviews and corrective actions will be completed prior to startup from the current outage and are being tracked as FPC Restart Issue, R-1. The Generic Letter 96-01 review is presently scheduled for completion by August 15, 1997.

A root cause analysis will be completed after the Generic Letter 96-01 reviews have been completed to develop appropriate corrective actions.

**DATE WHEN FULL COMPLIANCE WILL BE REACHED**

Full compliance will be achieved before the start up from our present outage.

**ATTACHMENT 2**

The following table contains a listing of commitments contained in FPC's response:

<b>RESPONSE SECTION</b>	<b>COMMITMENT</b>	<b>DUE DATE</b>
Pg. 5	Revise CP-115 to simplify the process and eliminate conflicts with CP-113A.	July 7, 1997
Pg. 5	Provide classroom and on the job training to appropriate personnel on the revised clearance process.	July 7, 1997
Pg. 5	Identify unnecessary detractors from the Shift Supervisor's ability to observe activities outside the control room. Of the approximately 80 tasks identified, about 25 percent will be reassigned to clerical staff.	June 30, 1997
Pg. 5	Incorporate configuration control principles and operating experience into licensed and non-licensed operator requalification programs.	July 7, 1997
Pg. 7	Revise AP-990 to provide specific guidance to achieve cold shutdown following a fire which requires evacuation of the control room.	Prior to Mode 4
Pg. 7	To ensure compliance with Appendix R requirements, the administrative control process AI-400, for reviewing and approving revisions to emergency and abnormal procedures will be revised to require an Appendix R review.	June 27, 1997
Pg. 9	Complete Generic Letter 96-01 review.	August 15, 1997
Pg. 9	Perform a root cause analysis on the issues resulting from the Generic Letter 96-01 review and develop appropriate corrective actions.	Prior to Restart