Florida
Power
CORPORATION
Crystal River Unit 3
Docket No. 50-302

November 27, 1996
3F1196-06

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

Subject: Notice of Violation (NRC Inspection Report No.50-302/96-11)
NRC to FPC letter, 3N1096-30, dated October 30, 1996

Dear Sir:

In the subject Inspection Report, Florida Power Corporation received a Notification of Violation. Please accept this correspondence as our response.

Sincerely,

P.M. Beard, Jr.
Senior Vice President
Nuclear Operations

PMB/RLM

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

IR01

FLORIDA POWER CORPORATION
NRC INSPECTION REPORT NO. 50-302/96-11
REPLY TO A NOTICE OF VIOLATION

VIOLATION 50-302/96-11-01

Technical Specifications 5.6.1.1, Procedures, states that written procedures shall be established, implemented, and maintained covering the activities in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978. RG 1.33 requires that written procedures or instructions for maintenance that can affect the performance of safety-related equipment be properly pre-planned and performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances. Licensee procedure CP-115, Nuclear Plant Tags and Tagging Orders, step 4.9.8, requires that when a tagging order is released and no restoration sequence is specified, tags are to be removed in the reverse sequence in which they were hung.

Contrary to the above, on September 13, 1996 the failure of the clearance for Work Request NU 0337713 to require tripping the fuel racks prior to opening the air supply isolation valve resulted in the inadvertent start of the A emergency diesel generator.

ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

Florida Power Corporation (FPC) accepts the violation.

REASON FOR TI[illegible] VIOLATION

The circumstances surrounding this event required the fuel racks to be in the "not tripped" position. The fuel racks were being manually exercised to verify the "full open" position as part of an effort to provide data for emergency diesel generators (EDGs) loading capabilities. This verification would not have been possible with the fuel racks in the tripped position.

The primary reason for the violation was personnel error due to lack of knowledge. Operations personnel were not aware that the EDGs would start if the air isolation valves were opened too quickly when the fuel racks are not tripped. In order to avoid starting the EDGs when the fuel racks are not tripped, the air isolation valves must be opened slowly to allow the starting air solenoid valves to properly close and isolate starting air to the EDGs.

Contributing causes to this event were that the clearance did not have an adequate description for proper restoration of the isolation valve and there was no annotation at the valve to identify the valve must be opened slowly.

CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

1. The standard clearances for the EDGs were reviewed. The standard clearance process has been changed to add a note to open the air isolation valves slowly.

2. Information labels have been installed on the air isolation valves for both EDGs. These labels will reinforce to the operators that the EDGs can potentially start if the air isolation valves are not opened slowly.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

1. An Operations Study Book entry has been made to notify operations personnel of this event.

2. The Maintenance Activity Control System (MACS) will be changed to add a caution to open the air isolation valve slowly. This will be completed by November 30, 1996.

3. Training for primary plant operators will be enhanced to include lessons learned from this event. This will be completed during the next operator requalification cycle currently scheduled to begin January 6, 1997.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved with the revision to the clearance process and the addition of the information labels at the air isolation valves noted above.

VIOLATION 50-302/96-11-03

Technical Specifications 5.6.1.1, Procedures, states that written procedures shall be established, implemented, and maintained covering the activities in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978. RG 1.33 requires that written procedures or instructions for maintenance that can affect the performance of safety-related equipment be properly pre-planned and performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances. Licensee procedure CP-113A, Work Request Initiation and Work Package Control, step 4.3.2.4, requires that the person performing the work complete the activity in accordance with the approved work instruction. Approved work instruction, WR NU 0337687, required that the work be accomplished under a clearance.

Contrary to the above, on September 13, 1996, cleaning and preparation of the reactor building sump for maintenance was performed by maintenance technicians who failed to log onto a clearance.

ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

Florida Power Corporation (FPC) accepts the violation.

REASON FOR THE VIOLATION

A root cause evaluation determined the cleaning and preparation work inside the RB sump was actually performed under a different work request than identified in the violation. This work request (WR NU 337586) did not specify a clearance. FPC recognizes that a weakness in the Work Controls process existed in these circumstances in that a clearance should have been obtained for DHV-42 and DHV-43 prior to any work being performed inside the RB sump.

As a related matter, WR NU 0337687 written to perform other work in the RB sump initially indicated that a clearance was required. However, a Machine Shop supervisor decided improperly (judgement error) that a clearance was not needed. Furthermore, the supervisor did not revise the work instruction after this decision was made. Although the supervisor is permitted to revise the requirements for a tagging order after the work instruction is issued, it is management's expectation that such changes be verified as correct by a qualified source (such as the Shift

Supervisor on Duty), and the work instruction requirement lined through, changed, and initialed by the supervisor at the time the change is made. Subsequent to any any work being performed, it was noted by the Master Mechanic that a clearance may be needed. A proper clearance was obtained before the work was done.

CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

Immediate corrective action was completed to establish the proper clearance for the Reactor Building sump work under WR NU 0337687.

The supervisor was instructed that although the NOTE in section 4.3.2 of CP-113A allows him to make a change to the tagging requirement in the work package, it is management's expectation that such changes will be properly verified and clearly indicated on the work package.

The Stop, Think, Act, and Review (S.T.A.R.) program has been the primary tool for reducing human errors at CR3. While S.T.A.R is a useful tool to reduce human errors during work execution, it is not effective in preventing decision based human errors. As part of action to prevent recurrence, the Failure Prevention International (FPI) process of Qualification, Validation, and Verification (QVV) has been introduced to maintenance workers as the best tool for reducing decision based human errors. Workers in the machine shop shared the experience of the RB Sump tagout with co-workers across maintenance. The discussion included introduction to the QVV process, and how QVV could have prevented this misjudgment error. As a follow-up to these discussions, a memorandum was issued to all maintenance personnel reviewing the incident, providing clarifications, and introducing the QVV process.

Since this was not a standard clearance, notification was made to Planning to ensure tagout of DHV-42 and DHV-43 is identified in Work Requests whenever workers may enter the RB sump.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

In addition to the above, workers at CR3 will be provided with formal training by FPI to reduce human errors. This training will identify human-error "traps" and "tools" for the workers to utilize to reduce human errors. The QVV process is one of several tools that will be presented during this training.

Date When Full Compliance Will Be Achieved

Full compliance was achieved when the proper clearance was obtained on the RB Sump.

VIOLATION 50-302/96-11-04

10 CFR 50, Appendix B, Criterion V, requires, in part, that activities affecting quality shall be prescribed by drawings, of a type appropriate to the circumstances, and shall be accomplished in accordance with these drawings. Licensee drawing S-521-038, Reactor Building Sump Liner, Screen and Covers, Sections and Details, provided construction details for the reactor building sump screens and supports.

Contrary to the above, on September 11, 1996, the licensee determined that the safety related reactor building sump screens and supports had not been constructed in accordance with the approved construction drawing S-521-038.

ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

Florida Power Corporation (FPC) accepts the violation.

REASON FOR THE VIOLATION

The primary cause for this deficiency was the failure to comply with original plant construction drawings and inadequate Quality Control inspections of the RB Sump during plant construction. A secondary cause was the failure to fully implement the requirements of Tech Spec SR 3.5.2.7 to "Verify, by visual inspection, each ECCS train reactor building emergency sump suction inlet is not restricted by debris and suction inlet trash racks and screens show no evidence of structural distress or abnormal corrosion".

CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

The sump screen support structure was evaluated and repair activities were completed. The evaluation developed minor modifications to the original design to assure complete compliance with design requirements. The missing welds have been installed. All other sump screen structural welds were inspected and some minor weld repairs accomplished. The three removable screen frames directly across from the sump suction piping were modified as required to address potential back flow into the sump. A mockup was tested to demonstrate the ruggedness of the original design. The tested assembly proved to be very rugged, capable of withstanding loads significantly greater than those previously developed via analytical methods. The weld repairs and installing the missing welds returned the support frame to full compliance with design requirements.

An operability review was also performed to evaluate the "as found" condition of the sump and determined the structure remained capable of performing its design basis function.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

Plant records have been researched in an attempt to identify the contractor responsible for the installation of the sump screens. The records available from original construction do not clearly identify a particular contractor. Therefore, a sampling of other similar installations will be inspected to determine if other deficiencies exist. This will be completed by November 29, 1996. Any deficiencies discovered by this inspection will be corrected.

Current surveillance requirements for the RB sump will be evaluated to determine if they are adequate. This will be completed before the next RB sump surveillance performed prior to restart from the current outage.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved with the repair and testing of the sump screens as noted above.