

**Florida  
Power**  
CORPORATION

Crystal River Unit 3  
Docket No. 50-302

July 9, 1992  
3F0792-03

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

Reference: 1) NRC letter to FPC dated June 3, 1992  
Notice of Violation and Enforcement  
Conference Summary - Inspection Report 92-11

Dear Sir:

Florida Power Corporation (FPC) provides Attachment I as our response to the Notice of Violation (NOV). Attachment II provides our response to your request for additional information.

FPC notes that the NRC staff has generally agreed with our assessment of the safety significance of this event. Thus, Severity Level IV can be viewed as a reasonable compromise. However, FPC's position at the Enforcement Conference was that, based on our understanding of Generic Letter (GL) 91-18, we had complied with 10CFR50, Appendix B, Criterion XVI. The NOV provides little clarification in this regard. It is our understanding that the basic concern is that the formal calculation revision was not completed prior to restart. That would imply that documented engineering judgment is not an appropriate resolution of a condition adverse to quality. It would be very helpful to gain a more complete understanding of the NRC staff's position on this issue.

Nevertheless, we have taken actions sufficient to correct the problems with valve EFV-14 and related motor-operated valve (MOV) concerns. We have discussed this with appropriate members of the NRC staff and want to

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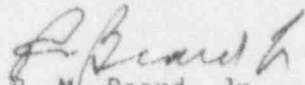
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emphasize that our intent is not to prolong the discussion over the event in question. Rather, we are seeking additional clarification that we believe will benefit FPC and other licensees.

Please note also that, due to the above mentioned considerations, FPC has taken somewhat more time to develop our response to this NOV. A one week delay was discussed and approved by telecon (FPC's E. E. Froats to NRC's Region II R. P. Schin) on July 2, 1992.

Sincerely,



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

EEF:mag

Enclosure

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

FLORIDA POWER CORPORATION  
NRC INSPECTION REPORT NO. 50-302/92-11  
REPLY TO NOTICE OF VIOLATION

VIOLATION 50-302/92-11-01

10 CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, requires in part, that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

Contrary to the above, prompt corrective action related to the failure of Emergency Feedwater Valve EFV-14 to fully close during testing on October 13, 1991, was not completed prior to restart of the reactor on November 25, 1991. The operability determination made on November 17, 1991, was not based on objective evidence, but rather on assumed conservatism in the differential pressure calculation for EFV-14.

ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

Florida Power Corporation (FPC) agrees with the general summary of the events associated with the failure of EFV-14 in October 1991 contained in the violation and accepts the violation. However, as stated at the Enforcement Conference, FPC does not agree that these events constitute a violation of 10 CFR 50, Appendix B, Criterion XVI.

BASIS FOR FPC POSITION

Following the test failure on October 13, 1991, FPC determined that improvements in the maintenance condition of the valve operator would be reasonably expected to correct the problem. This was based on our past experience with similar components. Further, FPC was able to upgrade the torque capacity (and related torque switch settings) of the operator during the outage which enhanced its capability. A retest was scheduled to occur during plant startup when system conditions could be established to confirm the adequacy of the corrective actions. That retest failed. When evaluating the retest failure, it was determined that the calculation on which the maximum differential pressure value for the retest was based, was in error. The projected 'correct' test pressure was determined to be less than that for which the valve had already been successfully tested in the past. Following restart, this was confirmed in the formal calculation revision. During the development of a subsequent test procedure, an assumption was identified as being consistent with our past experience but potentially non-conservative. Efforts to confirm or refute this assumption were not conclusive. FPC decided to utilize a worst-case value calculated using that more conservative assumption. The resulting projected design pressure was higher than that which the valve had been able to pass.

The violation notes that the decision to restart was based upon "...assumed conservatism..." not "...objective evidence." The conservatism was not assumed. The preponderance of available information clearly supported the conclusion that the calculated differential pressure was erroneously high. This was explicitly enumerated in the documentation provided to Operations through Licensing. Further, FPC notes that Criterion XVI does not limit objective evidence to retesting or formal calculations. Many conditions adverse to quality are identified and completely resolved without in situ testing or formal calculations. Had we retested at the best estimate of the design pressure at that time there is every reason to believe that it would have passed again. In hindsight, it may have been more appropriate to have completed the formal calculation revision prior to restart. Nevertheless, had we done so, we would have almost certainly concluded, as we did a few weeks later, that the appropriate test pressure was less than that already successfully demonstrated. We do agree that had the expected new design pressure been higher than the successful test a formal calculation and retest would have been clearly warranted.

#### REASON FOR THE VIOLATION

FPC did not recognize that documented engineering judgment was an insufficient basis for resolving a condition adverse to quality.

#### CORRECTIVE ACTION

Valve EFV-14 and its associated motor operator were replaced with a different design. Similar valves EFV-11, 32, and 33 were also modified. EFV-11 and its associated motor operator were replaced with a different design, EFV-32 and 33 motor operators were modified to increase thrust. All four valves were tested to the worst case differential pressure calculated using the conservative assumptions. All four valves passed the test.

#### CORRECTIVE ACTION TO PREVENT FURTHER VIOLATIONS

The lessons learned from this testing, as well as similar testing at other nuclear facilities, will be factored into FPC's GL 89-10 MOV program.

FPC is currently enhancing our guidance on operability determination. This action requires clarification of the NRC staff position on engineering judgment.

#### DATE OF FULL COMPLIANCE

EFV-11, 14, 32, and 33 successfully passed the differential pressure test on June 27, 1992.

The lessons learned will be incorporated into our MOV program by September 30, 1992.

Enhanced guidance on operability will be provided 30 days after receipt of NRC clarification on engineering judgment.

FLORIDA POWER CORPORATION  
NRC INSPECTION REPORT NO. 50-302/92-11  
REPLY TO REQUESTS FOR ADDITIONAL INFORMATION

MEASURES ESTABLISHED TO ASSURE PROMPT CORRECTION OF SUCH DEFICIENCIES

- 1) FPC has considerable guidance in place associated with implementing the requirements of Appendix B (including Criterion XV and XVI). FPC has reduced the number of Corrective Action Programs as a result of our own assessments as well as encouragement from the NRC. We believe the resulting systems more consistently meet the requirements and intent of Appendix B.
- 2) FPC has recently developed and issued internal guidance associated with MOV calculational and test failures. It assures that valid test failures result in the MOV being considered INOPERABLE. Although not required by GL 89-10, FPC also requires immediate corrective actions for MOVs where the best design information we have available indicates the valve is not capable of fulfilling its design function even though no test has been failed.
- 3) FPC is revising its overall administrative controls associated with OPERABILITY assessments in accordance with the guidance of GL 91-18 along with those being developed as part of the Improved Technical Specifications. The lessons learned from this experience will be factored into these as well. This guidance will require OPERABILITY determinations to be clearly documented and based on the best information available at that time, as well as the expectation that subsequent information will support the determination made. Nevertheless, as happened in this case, there will always be situations where future information or events render such determinations invalid. In these cases, a reevaluation of OPERABILITY is required.

IMPLEMENTATION OF CONTROLS FOR DETERMINING REPORTABILITY

While FPC understands why the concern was stated regarding reportability, FPC does not completely agree with the characterization that the information available on April 24 was the same as that available on April 28. The Problem Report (our form for handling conditions adverse to quality and initiating reportability assessments) was reevaluated for reportability on April 28 when the revised calculation was completed and verified. The decision to take interim actions was taken based on the changing information as noted above. As noted in GL 91-18, the primary concern must always be to take prompt actions to assure safety with subsequent actions following as soon thereafter as possible.

As noted at the Enforcement Conference, FPC did inform our Project Manager and Resident Inspectors on April 27, even though the formal reporting as required by 10 CFR 50.72 was delayed an additional day pending completion of the formal calculation. It should also be noted that the NRC MOV Inspection Report (50-302/92-01) reflected the fact that the calculations were not yet complete. In the past, FPC has reported some situations prior to completion of a formal verification on at least a preliminary basis. The enhanced administrative controls outlined above will aid in developing more consistency in these matters. We also understand that the NRC is revising NUREG-1022 (the primary interpretation document associated with 10 CFR 50.72). It may be appropriate to address such situations in the NUREG.