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ACCESSION NBR: 8810070012 DOC. DATE: 88/09/16 NOTARIZED: NO DOCKET #
 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
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SUBJECT: Requests discretionary enforcement to enable continued operation w/COMS not fully meeting Tech Spec basis.

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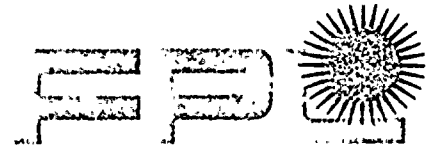
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SEPTEMBER 16 1988

L-88-420

Dr. J. Nelson Grace
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta St., N.W., Suite 2900
Atlanta, GA 30323

Gentlemen:

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Request for Discretionary Enforcement to Enable
Continued Operation With Cold Overpressure Mitigation
System Not Fully Meeting Technical Specification Basis

It was recently identified that a discrepancy existed between the actual values for Pressurizer Power Operated Relief Valves (PORV) stroke times and the values for PORV stroke time used in determination of Cold Overpressure Mitigation System (COMS) setpoints.

The COMS is designed to mitigate mass input and heat input induced pressure transients during cold shutdown conditions and during heatup and cooldown transients. The system was designed to provide overpressure protection for the following cases:

- 1) The inadvertent start of two charging pumps with a loss of letdown; or
- 2) the start of a High Pressure Safety Injection (HPSI) pump and its injection into a water solid RCS; or
- 3) the start of an idle Reactor Coolant Pump (RCP) with the secondary water temperature of the steam generators 50°F above the RCS cold leg temperature.

Cases #2 and #3 are stated in the basis for the Technical Specifications of Turkey Points Units 3 and 4, Section 3.15. All cases are addressed in the original generic Westinghouse pressure transient analysis.

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Dr. J. Nelson Grace
L-88-420
Page two

In the generic Westinghouse pressure transient analysis and in the NRC Safety Evaluation Report (SER) issued on March 14, 1980, the stroke times for the PORVs were specified as 2.0 seconds for the mass input case and 3.0 seconds for the heat input case. Actual PORV stroke time test results vary from below 2.0 seconds to a maximum of 6.41 seconds. Since the current situation has the potential to be outside the Technical Specification design basis during cold shutdown conditions when COMS is required, FPL has examined the potential safety issues that arise from the degraded PORV stroke times.

Case #1 - Inadvertent start of two charging pumps with a loss of letdown.

A reanalysis of this case shows that for the case of two charging pumps starting with a loss of letdown and a six second stroke time, the overshoot value is 18 psi, which can be readily accommodated by the COMS. This case is the most probable mass input transient and the PORV stroke times would have to degrade to greater than 10.0 seconds before the pressure excursions would approach 10 CFR 50 Appendix G limits. To prevent a third charging pump from being operated, procedures will be revised to tag open one of the three charging pump breakers when the RCS temperature is below 285°F.

Case #2 - Spurious start of one HPSI pump.

The case of a spurious HPSI pump start is the limiting injection transient. Although this case with the degraded PORV stroke times has not been evaluated to date, the possibility of this event is remote. Administrative controls are in effect at Turkey Point that prevent the possibility of a mass input transient caused by a spurious HPSI pump start. In addition to those procedures already in place, the plant procedures will be revised to require a bubble in the pressurizer with RCS temperature greater than 200°F in order to minimize the time when the RCS is operated in a solid condition. These factors combine to give reasonable assurance that a COMS event resulting from a spurious HPSI pump start will not occur at Turkey Point.

Case #3 - Inadvertent starting of a RCP with a temperature differential between the secondary system and the RCS of 50°F.

Current operating procedures specify a maximum differential temperature of 10°F in order to start an RCP. Using a maximum temperature differential of 20°F, the PORV stroke times would have to degrade to greater than 10.0 seconds before the limits of 10 CFR 50 Appendix G would be approached.

Dr. J. Nelson Grace
L-88-420
Page three

In summary, the analyses assure that the 10 CFR 50 Appendix G limits will be met as long as the following procedure restrictions are implemented prior to the next unit cooldown below 275°F.

- 1) The HPSI system is isolated from the RCS at temperatures less than 380°F. This is a current requirement of Technical Specification 3.15.
- 2) A maximum of 2 charging pumps may be running for RCS temperatures less than 285°F.
- 3) The pressurizer bubble would be maintained for RCS temperatures greater than 200°F.
- 4) At RCS temperatures less than 200°F, with no RCP running, a RCP may not be started unless steam generator secondary water temperature is less than 20°F above the RCS temperature.

Based on the above analysis and the implementation of the described procedural restrictions, the PORVs can be considered as operable, and able to function and mitigate a cold overpressure transient at the tested PORV stroke times.

FPL thus requests discretionary enforcement to permit Turkey Point Units 3 and 4 to cooldown below 275°F when required. This request is only through the next refueling outage for each unit. Accordingly, a long term resolution to this issue will be developed prior to restart from the next scheduled refueling outage for each unit.

Should there be any questions on this information, please contact us.

Very truly yours,


W. F. Conway
Senior Vice President - Nuclear

WFC/SDF/gp

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