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Docket No. 50-335

MEMORANDUM FOR: T. Novak, Assistant Director for Operating Reactors, DL

FROM: L. Rubenstein, Assistant Director for Reactor Systems, DSI

SUBJECT: STAFF EVALUATION OF ST. LUCIE, UNIT 1 RE: CONTAINMENT OVERPRESSURIZATION POTENTIAL DUE TO AUXILIARY FEEDWATER PUMP RUN-OUT FLOW FOLLOWING A MSLB

By letter dated December 21, 1979, the staff requested the Florida Power and Light Company (FP&L), the licensee for the St. Lucie Nuclear Power Plant, Unit 1 to provide certain additional information. Specifically, the licensee was to assess the potential for containment overpressurization due to the anticipated continuous addition, at pump run-out flow, of auxiliary feedwater to the affected steam generator following a postulated main steam line break (MSLB) accident.

The staff's interest in this issue resulted from the recommendation of the Three Mile Island, Unit 2 (TMI-2) Lessons Learned Task Force to automate initiation of the auxiliary feedwater systems. Automating the auxiliary feedwater system would cause an increase in energy released to containment after a MSLB; thereby, increasing the containment pressure response to a MSLB.

By letter dated January 24, 1980, the Florida Power and Light Company responded to the staff's letter cited above.

In the original MSLB analysis by FP&L, no consideration was given to auxiliary feedwater pump runout. The licensee has since performed an analysis that demonstrates that the addition of auxiliary feedwater at the run-out flow condition will not cause containment pressure to rise above the initial blowdown peak.

The staff concurs with the licensee's finding that the peak containment pressure will remain below the containment design pressure even with the addition of auxiliary feedwater at run-out flow. An SER on this matter was prepared by the Containment Systems Branch and is enclosed.

In the course of our review of the postulated MSLB with auxiliary feedwater pump run-out, we noted that the licensee had not considered the consequences of postulated single failures such as failure of the main feedwater control valve to close. To satisfy current criteria, the MSLB accident should be re-analyzed

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assuming single active failures. We suggest that you may wish to have the licensee reanalyze the containment response transient in a manner consistent with current criteria at an appropriate time.

Original signed by
L. S. Rubenstein

Leaser S. Rubenstein, Assistant Director
for Reactor Systems
Division of Systems Integration

Enclosure:
As stated

cc: P. Erickson
R. Reid
O. Parr
W. Butler
J. Shapaker
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