

July 7, 1975

Mr. Benard C. Rusche, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Rusche:

UNUSUAL EVENT NO. 251-75-14
TURKEY POINT UNIT NO. 4
REVISED ECCS ANALYSIS

A. DESCRIPTION OF EVENT

An audit by Westinghouse of the calculations of the ECCS analysis for the large break spectrum for Turkey Point Unit No. 4, Cycle 2 has shown that the value for peak clad temperature is in error. Using the NRC approved 10 CFR 50.46, Appendix K Westinghouse ECCS evaluation model, an analysis was submitted by Florida Power & Light Company to the Regulatory Staff on March 10, 1975, indicating a peak clad temperature of 2150° F for a loss-of-coolant accident under the worst break condition when operating the plant at 2300 MWT with a peaking factor of 2.32. The correct peak clad temperature for Unit No. 4, Cycle 2, operating at 2300 MWT is 2233° F which is above the 2200° F limit imposed by the Final Acceptance Criteria, 10 CFR 50.46.

B. Apparent Cause and Analysis of Event

In performing the analysis for Turkey Point Unit No. 4, Westinghouse used the fuel design data for Unit No. 3. It was determined that due to a lower fuel pellet sintering temperature limit and a higher rod internal gas pressure this fuel design data is not applicable for Cycle 2 of Unit No. 4. A re-calculation with the correct input resulted in a net increase in peak clad temperature of approximately 83° F, i. e., $PCT = 2150 + 83$. In order to limit this increase to <50° F, which would result in a peak clad temperature of <2200° F, a reduction of approximately 2% in peak linear power would be necessary.

C. CORRECTIVE ACTION

The reported analysis is based on plant operation at 2300 MWT, while the licensed power is 2200 MWT. A corrected LOCA

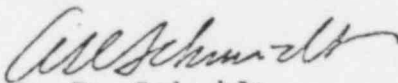
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calculation of the worst break for Unit 4, Cycle 2 operation at 2200 MWT with a peaking factor of 2.32 shows a peak clad temperature of 2158° F, well below the 2200° F limit. Nuclear physics calculations and in-core flux measurements indicate that the actual peaking factor will be well below 2.32 throughout Cycle 2 when operating with constant axial offset control at 2200 MWT thus providing the required safety margin. Westinghouse is continuing their investigation and re-analysis and you will be apprised of the results.

The margin that is available when operating Turkey Point Unit No. 4 in accordance with present Technical Specifications, which limit the maximum power to 2200 MWT, is sufficient to assure that there are no significant hazards considerations and there is reasonable assurance that the health and safety of the public will not be endangered.

Very truly yours,



A. D. Schmidt
Vice President
Power Resources

PJW/cpc

cc: Mr. Norman C. Moseley
Jack R. Newman, Esquire