

# Evaluation of Loss of a Main Feedwater Pump Event for YGN 3

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## ABSTRACT

A loss of one main feedwater pump event and a subsequent reactor trip by the CPC variable overpower trip function occurred during the Cycle 4 of Yonggwang Unit 3. In order to investigate the transient behavior of the plant, a computer code simulation with KISPAC code was performed for this event. The turbine control system and turbine valve responses were modeled as simplified form and the CPC function was simulated by interfacing with the KISPAC code results. A comparison between the measured plant data and the computer code simulation results showed a reasonable agreement. The simulation results also showed that the reactor trip occurred when the CPC resumed its normal calculation schemes at 23 seconds after the actuation of the Reactor Power Cutback System. An understanding of the trip sequence for this event by the simulation is helpful in preventing the reactor trip under the similar situation in the future.