

ATTACHMENT

LER 80-05/1T-0
Millstone Unit 2
Docket No. 50-336

Event Description

During a review of the safety analysis it was discovered that an incorrect assumption had been made in the analysis of the boron dilution event. The analysis of this event while in Mode 5 (cold shutdown) had assumed a full reactor coolant system and a 1% shutdown margin. This resulted in a time to become critical of 20 minutes which satisfied the requirement for the 15 minute maximum time assumed for the operators to recognize the situation and take action. However, the analysis had not considered the fact that operation is possible with the reactor coolant system drained to the centerline of the hot leg. Including this reduced volume of reactor coolant to be diluted in the analysis results in a time to reach criticality of less than 15 minutes.

Cause Description and Corrective Actions

At the reduced system volume the time to reach criticality during the Mode 5 dilution event would have been less than the 15 minutes allowed for the operator to terminate the event. By increasing the required shutdown margin in Mode 5 to 2%, a time to criticality of greater than 15 minutes is reestablished. Until the necessary Technical Specification changes can be approved, the unit will administratively maintain a shutdown margin in excess of 2% in Mode 5. In the past it has been standard practice to maintain the Mode 4 shutdown boron concentration requirement while in Mode 5, which provides reasonable assurance that a greater than 2% shutdown margin has been maintained during previous Mode 5 operation.