

LERs 373/82-107, -099

Event Description: Scram with RCIC and CRD Inoperable

Date of Event: August 12, 1982

Plant: LaSalle 1

Summary

At 1835 on August 12, 1982, LaSalle was critical and at low power in startup mode when control rod drive (CRD) pump A tripped on low suction pressure. Operators attempted to start the B CRD pump but were unable to do so. At that point it was discovered that the level in the condensate storage tank, the suction supply to the CRD pumps, was below the low-level alarm set point. At that point, operators scrammed the reactor by taking the mode switch to shutdown. On August 15, 1982, a surveillance test of the reactor core isolation cooling (RCIC) system was performed. RCIC was found to be inoperable when it tripped on over-speed during the test and the governor valve was discovered to be binding. This latent failure presumably existed during the unit scram that occurred on August 12.

This event was modeled as a trip with the RCIC and CRD systems assumed to be inoperable. Reduced condensate inventory has the potential to render the condensate and feedwater systems inoperable but, since it was not indicated that these systems were inoperable during the event, they were assumed to be available in this analysis. The conditional core damage probability estimated for this event is 5.7×10^{-6} . The dominant core damage sequence for this event involves the observed scram, failure of the power conversion system, feedwater success, and failure of the residual heat removal system.