

LER 387/83-106

Event Description: HPCI Pump Fails to Deliver Required Flow

Date of Event: August 2, 1983

Plant: Susquehanna 1

Summary

On August 2, 1983 during quarterly surveillance for high-pressure coolant injection (HPCI) verification, the HPCI pump failed to reach required speed and discharge pressure for 5,000 gpm flow. A scram occurred during July, within half of the apparently quarterly surveillance intervals.

This event was analyzed as a scram with HPCI assumed unavailable. The conditional core damage probability estimated for this event is 6.2×10^{-6} . The dominant sequence involves the transient initiator followed by successful reactor shutdown, failure of the power conversion system, no more than one safety relief valve failing to close, success of the main feedwater system, and failure of the residual heat removal system.