LER 293/83-039

Event Description: Trip with HPCI Inoperable

Date of Event: July 2, 1983

Plant: Pilgrim

Summary

During reactor startup surveillance tests on July 2, 1983, the high-pressure coolant injection (HPCI) system was declared inoperable when the HPCI turbine stop valve required more than the normal amount of time to open. A manual scram occurred six days earlier.

Assuming HPCI was inoperable during the scram, the conditional core damage probability estimated for this event is 5.2×10⁻⁶. The dominant sequence involved a transient initiator followed by successful reactor shutdown, failure of the power conversion system, failure of two safety relief valves (SRVs) to close, unavailability of HPCI, and failure of the automatic depressurization system (ADS).