

LER 293/83-052

Event Description: Trip with HPCI Inoperable

Date of Event: September 23, 1983

Plant: Pilgrim

Summary

While monthly surveillance of the high-pressure coolant injection (HPCI) system was being performed during steady-state operation on September 23, 1983, the HPCI was declared inoperable when the HPCI motor-operated valve 2302-3 failed to open. Fourteen days earlier, on September 9, 1983, a scram occurred during surveillance testing.

Assuming HPCI was failed at the time of the scram, a conditional core damage probability of 5.2×10^{-6} is estimated. 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).