

LERs 293/82-043 and -042

Event Description: RCIC and HPCI Suction Valves Inoperable

Date of Event: September 30, 1982

Plant: Pilgrim

Summary

On September 30, 1982 at 0600 hours, position indication was lost for reactor core isolation cooling (RCIC) torus suction valve 1301-25 during a surveillance test. Prior to this, on September 29, high-pressure coolant injection (HPCI) had been declared inoperable, owing to the failure of HPCI torus suction valve 2301-35 during a timing surveillance (licensee event report (LER) 293/82-42).

The increase in core damage probability (CDP), or importance, over the duration of the event is 5.8×10^{-6} . The base-case CDP over the duration of the event is 1.8×10^{-6} resulting in an estimated conditional core damage probability of 7.6×10^{-6} . The dominant sequence involves a postulated loss of offsite power with successful reactor shutdown, failure of the emergency power system, successful restoration of offsite power before battery depletion, no more than one safety relief valve failing to close, failure of HPCI, and failure of RCIC.