

ATTACHMENT TO LICENSEE EVENT REPORT NO. 79-019/01T-0

Wisconsin Electric Power Company
Point Beach Nuclear Plant Unit 1
Docket No. 50-266

While filling the "A" steam generator secondary side with water from the condensate storage tanks to perform a secondary-to-primary leak test during the Unit 1 refueling seven outage, an inadvertent dilution of the reactor coolant system (RCS) occurred as a result of secondary-to-primary leakage via two open ended (on secondary side) unplugged (on primary side) tubes. At no time did the reactor deviate from the refueling shutdown condition; i. e., below 140°F and subcritical by at least 10%Δk/k.

The secondary-to-primary leakage resulted from a scheduling oversight of not plugging the cold leg side of two tubes, which had sections removed from the hot leg side earlier in the refueling for metallurgical testing, prior to initiating the leak test. The leak test was scheduled before explosive tube plugging to detect any leaking tubes previously determined to have defects per the eddy current inspection program, or leaking plugs.

At 1100 hours on November 7, 1979, filling of the secondary side of the "A" steam generator commenced. At 1209 hours, it was noted that a jet of water from a leaking tube was coming out of the "A" steam generator primary outlet side manway. Secondary side filling was immediately stopped. Ten gallons of boric acid was injected into the reactor coolant system and a reactor coolant system boron sample was taken. It was determined shortly after discovery of the leakage that the source of the leakage was from the open ends of two steam generator tubes.

At 1300 hours, the results of the boron sample were received and indicated a boron concentration of 1938 ppm, an acceptable value.

At 1330 hours, the draining of the secondary side began but the secondary-to-primary leakage continued due to siphoning up over the U-bends.

At 1430 hours, the siphoning was stopped by injecting compressed air up the outlet side tube ends against the flow of water. During this operation it was discovered that the leakage from one of the tubes had been falling almost directly into the primary outlet nozzle and on into the reactor coolant system, while the leakage from the other tube had been falling almost directly out the open manway. Therefore, until the siphoning action of the tube over the outlet nozzle was stopped, dilution of the reactor coolant system continued.

At 1510 hours, a second boron sample of the reactor coolant system was requested.

At 1525 hours, the results of the boron sample were received and indicated a boron concentration of 1755 ppm, below the 1800 ppm minimum required by Technical Specification 15.3.6.A(d). Sixty gallons of boric acid were injected into the reactor coolant system immediately and another boron sample was requested.

At 1540 hours, the results of the boron sample were received and indicated 1733 ppm, at which time an additional 100 gallons were injected and another boron sample was requested.

At 1615 hours, the boron concentration was determined to be 1852 ppm within specification.

At 0815 hours on November 8, 1979, a confirmatory boron sample results indicated 1863 ppm.

Throughout the event, the count rate was monitored visually on the source and intermediate range instruments and recorders and audibly on the source range audio counter. The count rate of 1.1×10^3 cps did not change throughout the event. The ability to add additional concentrated boric acid was available at all times.

This event resulted from an oversight in that actual equipment conditions were not fully evaluated when drawing up the schedule for leak testing the "A" steam generator. The routing of a copy of this licensee event report to personnel involved in outage scheduling will serve to alert them to the effects of such oversights and preclude the possibility of similar recurrences.

This event is reportable per Technical Specification 15.6.9.2.A.2 and 15.6.9.2.A.4.