

ATTACHMENT TO LICENSEE EVENT REPORT NO. 80-016/03L

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

During an Operations refueling test, Safety Injection with Loss of Engineered Safeguards AC - Unit 1, at 1210 hours December 17, 1980, the 4D emergency diesel generator, common to Units 1 and 2, failed to close in on the Unit 1 bus automatically. The 3D emergency diesel generator was started and load tested at 1243 hours to verify its operability. The 4D emergency diesel generator was returned-to-service at 1530 hours after completion of initial repairs and testing. Unit 1 was in the refueling condition. Unit 2 was operating at full power.

The event led to a degraded mode of operation permitted by the Technical Specifications. The redundant emergency diesel generator was operable and the public health and safety was not affected. It should be noted that the 4D emergency diesel generator tested satisfactorily at 0536 hours the same day, December 17, 1980, prior to performance of the Operations refueling test.

The event was due to a failure in the 4D emergency diesel generator speed sensing equipment. Initially it was thought that the high speed relay setpoints (in the General Motors, Electromotive Division, Model EMD 8409614, speed sensing panel assembly) had drifted preventing an indication of adequate engine speed to the bus breaker closing logic. The setpoints were reset and the 4D emergency diesel generator was tested and returned-to-service that same day. At 0630 hours on December 30, 1980, the 4D emergency diesel generator was taken out-of-service for additional maintenance investigations regarding the speed sensing panel relay setpoint drift. At this time it was discovered that the basic cause for the event was not relay setpoint drift. The event was caused by loosening of the setscrew that secures the flexible shaft coupling (General Motors, Electromotive Division, Part Number 8276102) to the frequency generator drive shaft. This resulted in inadequate signal generation from the speed sensing frequency generator due to insufficient rotational energy transmission from the camshaft adapter to the frequency generator drive shaft. The setscrew that locks the coupling to the shaft and the jam setscrew had both backed out of the coupling probably due to vibration. As a precautionary measure, both of the setscrews were replaced, loctighted, and staked. The shaft coupling was secured and the 4D emergency diesel generator was tested and returned-to-service at 1312 hours the same day. Based upon four satisfactory tests (December 17, 25, and two tests on the 27th), it was determined that the 4D emergency diesel generator would have performed its required safety function with the initial setpoint adjustment.