

LER 282/82-015

Event Description: Two EDGs Simultaneously Inoperable for 1.5 Hours

Date of Event: August 27, 1982

Plant: Prairie Island 1

Summary

On August 27, 1982, during normal operation, emergency diesel generator (EDG) D1 was out of service for preventive maintenance when an operability test was done on EDG 02. A procedural step was missed, which resulted in the auto/manual switch for the 02 supply to bus 16 being left in the manual position. This would have prevented EDG 02 from automatically closing onto bus 16 in the event that offsite power was lost to the bus. The operator error was discovered and corrected within one hour and 25 minutes. During this time, both EDGs would have been unavailable given the loss of offsite power.

This event was modeled as an unavailability of both trains of emergency power given a postulated loss of offsite power (LOOP). The non-recovery factor for emergency power was modified to 0.55 to reflect the ability of the operators to recover EDG 02 locally (see Appendix A). The increase in core damage probability, or importance, over the duration of the event is 2.3×10^{-6} . The base-case CDP over the duration of the event is 2.1×10^{-8} resulting in an estimated conditional core damage probability of 2.3×10^{-6} . The dominant sequence involved a postulated LOOP with the failure of emergency power (station blackout) and failure to recover offsite power prior to battery depletion.