

The Nuclear Regulatory Commission's Management Directive 8.3, "Incident Investigation Program," documents the NRC's formal process conducted for the purpose of accident prevention. This directive documents a risk-informed approach to determining when the agency will commit additional resources for further investigation of an event. The risk metric used for this decision is the conditional core probability. Because there is a lack of complete information at the time of initial decision-making, a preliminary evaluation is performed.

A loss of offsite power is a significant event at any nuclear facility, and more so for a Combustion Engineering plant without primary system power-operated relief valves, because of the inability to perform a reactor coolant system feed and bleed evolution. To evaluate this event, the analyst used the Standardized Plant Analysis Risk Model for Palo Verde (SPAR), Revision 3 model, and modified appropriate basic events to include updated loss of offsite power curves published in NUREG CR-5496. The analyst evaluated the risk associated with the Unit 2 reactor because it represented the dominant risk of the event.

For the preliminary analysis, the analyst established that a loss of offsite power had occurred and that the event may have been recovered at a rate equivalent to the industry average. Both Emergency Diesel Generator A and Charging Pump E were determined to have failed and assumed to be unrecoverable. Additionally, the analyst ignored all sequences that included a failure of operators to trip reactor coolant pumps, because all pumps trip automatically on a loss of offsite power. The conditional core damage probability was estimated to be 6.5×10^{-4} indicating that the event was of substantial risk significance and warranted an augmented inspection team.

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