

19.11 Human Action Overview

Several functions, performed manually in an earlier ABWR design, were automated to reduce the dependence on human actions. In addition, other studies were performed to provide an improved understanding of human actions in the PRA.

Sensitivity studies of the core damage frequency resulting from the level 1 analysis were conducted (Subsection 19D.7). From this study, four human actions after accident initiation were found to be the most important. They are actions taken to provide water injection to the reactor vessel if the several automatic injection features fail to accomplish this function.

In addition, the PRA was reviewed to compile a list of human actions which were assumed in other parts of the analysis (Subsection 19D.7). From this list and the above mentioned sensitivity studies, actions were identified which should be given consideration as being “CRITICAL TASKS” as defined by the human factors evaluation Design Acceptance Criteria, as noted in Subsection 18E.2. These human factors are listed and discussed in Subsection 19D.7.

The human actions lists were also reviewed to ensure consistency with the ABWR emergency procedure guidelines (Appendix 18A). This review is documented in Appendix 18F. Some of the actions are not appropriate for inclusion in the symptom based emergency procedure guidelines. These are included as COL license information in Section 19.9.