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The major objective of B&W Assessment Program is to develop a methodology with the capability to evaluate the relative risk importance of plant modifications proposed by the Babcock & Wilcox Owners Group (B&WOG) or the Nuclear Regulatory Commission and to apply this methodology, when requested. An additional objective is to assess differences in operational safety between Babcock & Wilcox (B&W) plants and plants of other reactor vendors.

1. Summary of Work Performed During Report Period

Preparations were made for the visit to the Oconee 3 plant the week of March 16, 1987. As part of these preparations, Oconee personnel agreed to conduct simulator exercises using four different control room crews for each of the three transients being studied. The transient scenarios that will be used were defined in conjunction with the training personnel responsible for preparing the simulator exercises. The data obtained from the simulator exercises will provide important information on the times required for the operator to accomplish the tasks associated with the three transient scenarios.

Calculations currently identified for each of the three vendor plants has been completed. However, it is recognized that information from the upcoming Oconee plant visit may identify additional calculational requirements. An outline for the NUREG report was developed and documentation of the completed thermal-hydraulic calculations and the Critical Safety Function (CSF) response trees continues. Documentation is about 50% complete for the H. B. Robinson (HBR) and Oconee plant thermal-hydraulic calculations and about 30% complete for Calvert Cliffs. The documentation required for Calvert Cliffs was more extensive than HBR and Oconee since the description of the Calvert Cliffs RELAP5 model did not exist from prior work. Documentation of the CSF response trees and results from their comparison is about 80% complete.

Task analysis for each of the three transients for HBR and Calvert Cliffs was completed in the form of task and subtask descriptions and their estimated response times. Estimation of non-response probabilities for selected tasks important to recovery of the HBR and Calvert Cliffs plants during the three transients is about 25% complete. Discussions were held with HBR personnel concerning the simulator runs identified during the plant visit. These runs are currently being conducted and the results should be available in time to be used in completing the HBR non-response probability analysis.

2. Summary of Work To Be Performed During the Next Period

The Oconee plant visit will be completed and analysis of the data obtained will be initiated. The need for additional thermal-hydraulic calculations resulting from information obtained during the plant visit will be considered and additional calculations will be performed, if required. Draft documentation of the CSF response tree results and the thermal-hydraulic calculations for all plants will be completed and initial EG&G management review will begin. Review of the Oconee PRA event and fault trees will continue for the purpose of evaluating the relationship between the plant risk and the findings of this program.

3. Future Information Needs

Information on the preferred form of the results is needed by April 1, 1987 to allow sufficient time for documentation.

4. Problems and Potential Problems

The current work scope should continue to be reviewed, in detail, by NRR to ensure that it will meet NRR's needs both in terms of results and schedules. NRR has recently indicated that written results are desired by May 1, 1987. Due to the delay in the visit to Oconee, it is not clear that detailed risk comparison information can be developed by this time. Some Oconee risk information will be available at this time but may not be sufficiently complete to draw detailed conclusions on the impact of the study findings on risk. Better information on the schedule impact will be available upon completion of the Oconee visit.

NRR indicated they were interested in comparison of results between B&W plants (between the detailed findings on Oconee and the other plants). This comparison is possible on a limited basis for selected plants but will not include an equivalent level of detail on each plant such that the comparisons could be considered as a "sensitivity study".

Members of the B&WOG Operator Support Committee indicated that they would prefer to have an excessive steam flow transient as the overcooling transient. The alternative overcooling transient is a steam generator overfill. INEL is proceeding with the overfill since it requires more extensive operator actions.

5. Cost and Schedule Information

Of the \$712 K currently estimated for this work, \$409 K has been spent as of March 15, 1987, the last day of this period for which cost information is readily available. Completion of plant visits is currently about four weeks behind the best estimate schedule and is now on the critical path. Efforts to expedite these visits were made but plant priorities changed the visit date for Oconee.

Variance Statement

The delay in the Oconee plant visit has somewhat delayed expenditures.