18.7 Integration of Human Reliability Analysis with Human Factors Engineering

Human reliability analysis (HRA) evaluates the potential for human error that may affect plant safety. There are important interfaces between the human factors engineering program and human reliability analysis. Human reliability analysis makes use of outputs of human factors engineering/HSI design activities including analyses of operator functions and tasks and specifications of HSI characteristics. Human reliability analysis is a source of input to human factors engineering/HSI design in identifying plant scenarios, human actions, and HSI components that are important to plant safety and reliability.

[*The objective of integration of human reliability analysis with human factors engineering is to specify the interfaces between human reliability analysis and human factors engineering activities. Reference 1 documents the implementation plan for the integration of human reliability analysis with human factors engineering design.*]* Execution and documentation of this implementation plan is the responsibility of the Combined License applicant.

[*The objective of the human reliability analysis/human factors engineering integration implementation plan is to enable:*

- *Human reliability analysis activity to integrate the results of the human factors engineering design activities*

- *Human factors engineering design activities to address critical human actions, risk important tasks, and human error mechanisms, in order to minimize the likelihood of personnel error and to provide for error detection and recovery capability*]*

Human reliability analysis methodology and results are described in Chapter 30 of the AP600 PRA.

18.7.1 Combined License Information

Combined License applicants referencing the AP600 certified design will address the execution and documentation of the human reliability analysis/human factors engineering integration implementation plan that is presented in Section 18.7.

18.7.2 References

[*1. WCAP-14651, "Integration of Human Reliability Analysis with Human Factors Engineering Design Implementation Plan," Revision 2, May 1997.*]*

* NRC Staff approval is required prior to implementing a change in this information; see DCD Introduction Section 3.5.