3.2 Reliability Assurance Program

Design Description

1.0 Description

The Reliability Assurance Program (RAP) is implemented as an integral part of the design process and is implemented during the detailed design phase prior to initial fuel load. The RAP evaluates and sets priorities for the structures, systems and components (SSC) in the design, based on their degree of risk significance.

The objective of the RAP is to provide reasonable assurance that risk-significant SSC are designed such that: (1) assumptions from the risk analysis are maintained, (2) SSC when challenged, function in accordance with the assumed reliability, (3) SSC whose failure could result in a reactor trip, function in accordance with the assumed reliability, and (4) maintenance actions to achieve the assumed reliability are identified.

2.0 Design Features

2.1 The plant is designed in a manner that is consistent with the key assumptions and risk insights for risk-significant SSC within the scope of the RAP.

Inspections, Tests, Analyses, and Acceptance Criteria

Table 3.2-1 lists the RAP ITAAC.

Table 3.2-1—Reliability Assurance Program ITAAC

Commitment Wording		Inspections, Tests, Analyses	Acceptance Criteria
2.1	The plant is designed in a manner that is consistent with the key assumptions and risk insights for risk-significant SSC within the scope of the RAP.	An analysis will be performed of the implementation of the RAP to confirm that reliability assurance activities for the design stage have been applied to the design of all within-scope SSC.	Documentation exists that: ● Identifies the SSC within the scope of the RAP. ● Shows quality requirements for the safety related risk-significant SSC are identified in documents approved for procurement and construction in accordance with a 10 CFR 50 Appendix B quality program. ● Shows quality requirements for the non-safety, risk-significant SSC are identified in documents approved for procurement and construction in accordance with the RAP.