

## 19.7 PRA as a Design Tool

The information in this section of the reference ABWR DCD, including all subsections, is incorporated by reference with the following departures.

STD DEP 19.7-1

STD DEP 8.3-1

### 19.7.2 Early PRA Studies

STD DEP 19.7-1

#### (4) Control Rod Drive Improvements

*The FMCRD brake mechanism is provided to prevent a rod ejection in the event of a break of the scram insert line. As a result of PRA studies, the design was changed from the centrifugal-type brake used in the early design to the current electro-mechanical-type break. The PRA studies indicated that the brake design had to be fully testable on ~~an annual~~ refueling cycle basis to meet the goals for rod ejection frequency. It was determined that the electro-mechanical brake design was easier to test, and would not have any impact on the plant outage critical path.*

### 19.7.3 PRA Studies During the Certification Effort

STD DEP 8.3-1

#### (2) Feature Descriptions and Resulting Benefits

##### (b) Combustion Turbine Generator

*The CTG is designed to supply standby power to the ~~three~~ four turbine building (non-Class1E) ~~6.9kV~~ 13.8 kV buses which carry the plant investment protection loads. The CTG automatically starts on detection of a 30% voltage drop on the ~~6.9kV~~ 13.8 kV bus. The ~~6.9kV~~ 13.8 kV bus is tripped and the CTG sequentially assumes the loads.*

