

## **19M Fire Protection Probabilistic Risk Assessment**

The information in this appendix of the reference ABWR DCD, including all subsections, tables, and figures is incorporated by reference with the following departures and supplement.

STP DEP 1.1-2

STD DEP 1.2-1

STD DEP T1 2.4-3

### **19M.6.3 STP 3 & 4 FIVE Review**

The ABWR FIVE analysis was reviewed, based on the proposed plant departures and STP 3 & 4 site-specific characteristics. The following summarizes the risk impact for deviations potentially affecting the FIVE results.

STP DEP 1.1-2

The use of a shared Fire Protection Pump House and Storage Tanks does not affect the FIVE analysis results. The FIVE analysis provides an assessment of fire risk as a result of fires internal to the plant, based on plant components or transient fires damaging safe shutdown systems. Since STP units 3 & 4 do not share fire areas where safe shutdown systems are located, and it is extremely unlikely that there will be simultaneous fires in areas of the plant affecting safe shutdown systems, it is extremely unlikely that fire protection systems for both units will need to function at the same time.

STD DEP 1.2-1

The Reactor Internal Pump MG Sets (2) and their switchgear are moved from the Control Building to the Control Building Annex. These are included on the ISDS for each of the Division 1, 2, and 3 "Fire Compartments." The relocation of the MG sets lowers the ignition frequencies for these three compartments. Since there are fewer cables affecting Safe Shutdown Systems in the Annex, the impact of the change is an overall reduction in the Fire Risk.

STD DEP T1 2.4-3

Changes to the RCIC pump reduce the overall fire risk. As discussed in the internal events results, the new RCIC pump design is expected to increase RCIC reliability and reduce overall risk. This reduction also occurs in the fire risk results, due to the importance of the RCIC pump operation following a control room fire.

Overall, the existing ABWR FIVE results are bounding for the STP 3 & 4.

**19M.7 COL License Information**

The following site-specific supplement address COL License Information item 19.12.

This COL license information item is addressed in subsection 19.9.12.