

## 15.2 Increase in Reactor Pressure

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

STD DEP T1 2.3-1

STD DEP 8.3-1

### 15.2.1.3.1 Inadvertent Closure of One Turbine Control Valve

The following site-specific supplement addresses the COL License Information Item the reference ABWR DCD.

No departures are being taken from the fuel design licensing basis that is described in the reference ABWR DCD, including the core loading map used for response analysis in Figure 4.3-1 and the basic control strategy in Table 4A-1. Consequently, the analysis for the initial core is provided in subsection 15.2.1.3.1 of the DCD.

### 15.2.2.3.2.3 Generator Load Rejection with Failure of All Bypass Valves

The following site-specific supplement addresses the COL License Information Item in the reference ABWR DCD.

No departures are being taken from the fuel design licensing basis that is described in the reference ABWR DCD, including the core loading map used for response analysis in Figure 4.3-1 and the basic control strategy in Table 4A-1. Consequently, the analysis for the initial core is provided in subsection 15.2.2.3.2.3 of the DCD.

### 15.2.4.1.1 Identification of Causes

STD DEP T1 2.3-1

*Various steamline and nuclear system malfunctions, or operator actions, can initiate main steamline isolation valve (MSIV) closure. Examples are low steamline pressure, high steamline flow, ~~high steamline radiation~~, low water level or manual action.*

### 15.2.6.1.1 Identification of Causes

STD DEP 8.3-1

*The non-emergency AC power to the station auxiliaries is provided by three unit auxiliary transformers. The unit auxiliary transformers are powered by the unit turbine/generator via a medium voltage generator breaker. ~~Each Two of the unit auxiliary transformer~~ transformers (UAT) ~~provides~~ provide power to ~~three two~~ electrical buses which provide power to the unit's auxiliary loads, including the reactor internal pumps (RIPs), as follows: UAT-A and UAT-B each ~~provides~~ provide power to a RIP MG set with 3 RIPs and both UATs have a separate bus providing powers power to 2 RIPs directly (i.e. no MG set); UAT-B powers 2 RIPs directly (i.e., no MG), and UAT-C ~~provides power to a RIP MG with 3 RIPs.~~ Following a generator trip and during plant*

*startup, the medium voltage generator breaker is open but the high voltage breaker at the switchyard remains closed to backfeed power from the normal preferred power grid to the unit auxiliary transformers.*

## 15.2.10 COL License Information

### 15.2.10.1 Radiological Effects of MSIV Closures

The following site-specific supplement addresses COL License Information Item 15.4.

The STP site-specific Exclusion Area Boundary (EAB) long-term routine release (annual average)  $\chi/Q$  is  $1.5E-05 \text{ sec/m}^3$ . This  $\chi/Q$  value conservatively assumes no decay. ABWR DCD Table 15.2-12 provides MSIV closure doses as a function of  $\chi/Q$ . The STP EAB doses associated with the inadvertent closure of MSIVs are provided below:

| Dispersion<br>$\text{sec/m}^3$ | Thyroid<br>mGy | W Body<br>mGy | Beta<br>mGy | Skin<br>mGy |
|--------------------------------|----------------|---------------|-------------|-------------|
| 1.5E-05                        | 4.5E-04        | 1.3E-02       | 2.0E-02     | 3.3E-02     |