

2.1 Nuclear Steam Supply Systems

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

~~STD DEP T1 2.1-1~~

STD DEP T1 2.1-2

2.1.1 Reactor Pressure Vessel System

STD DEP T1 2.1-2

Reactor Pressure Vessel, Appurtenances, Supports and Insulation

A stainless steel weld overlay is applied to the interior of the RPV cylindrical shell and the steam outlet nozzles. Other nozzles ~~and the RIP motor casings~~ do not have cladding. The bottom head is clad with Ni-Cr-Fe alloy. The RIP penetrations are clad with Ni-Cr-Fe alloy or, alternatively, stainless steel. The RIP motor casings are clad with stainless steel only in the stretch tube region and around the bottom of the RIP motor casings where they interface with the motor cover closures.

~~2.1.2 Nuclear Boiler System~~

~~Safety/Relief Valves~~

~~The following standard departure is made to the table under the Safety/Relief Valves item (1), on page 2.1.2-3 of the reference ABWR DCD/Tier 1.~~

~~The following table identifies the SRV, spring set pressures and flow capacities. The opening time for the SRVs, from the time the pressure exceeds the valve set pressure to the time the valve is fully open, is less than or equal to 0.3 seconds. The safety relief valves all have a simmer margin of more than 15%. The SRV set pressure and capacities shall be as follows:~~

~~Set Pressures and Capacities~~

SRVs	Number* of Valves	Nameplate Spring Set Pressure (MPaG)[†]	ASME Rated Capacity at 103% Spring Set Pressure (kg/h each)[‡]	Used For ADS
J, P	2	7.92 8.00	395,000 398,725	
B, G, M, S	4	7.99 8.07	399,000 402,121	
D, E, K, U	4	8.06 8.14	402,000 405,516	
C, H, N, T	4	8.13 8.20	406,000 408,912	×
A, F, L, R	4	8.20 8.27	409,000 412,307	×

- * ~~Eight of the SRVs serve in the automatic depressurization system function.~~
- † ~~Spring set pressure tolerances as permitted by the ASME Boiler and Pressure Vessel Code, Section III.~~
- ‡ ~~Minimum capacity per the ASME Boiler and Pressure Vessel Code, Section III.~~