

## **6.1 Engineered Safety Feature Materials**

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

### **6.1.1.1.1 Material Specification**

The following site-specific supplement addresses site-dependent information identified in the reference ABWR DCD Tier 2 Table 6.1-1.

Materials to be used in the Reactor Building Cooling Water System heat exchanger and the Reactor Service Water System pump, piping, and valves are identified in Table 6.1-1.

### **6.1.3 COL License Information**

#### **6.1.3.1 Protective Coatings and Organic Materials**

The following site-specific supplement addresses COL License Information Item 6.1.

An analysis of any containment coatings not complying with the requirements of Regulatory Guide 1.54 and ANSI N101.2 will be performed after the procurement of the components.

The analysis will include:

- (1) The total amount of protective coatings and organic materials used inside the containment that do not meet the requirements of Regulatory Guide 1.54 and ANSI N101.2.
- (2) An evaluation of the generation rate as a function of time of combustible gases that can be formed from organic materials under Design Basis Accident conditions.
- (3) Provision of the technical basis and assumptions used for this evaluation (Subsections 6.1.2.1 and 6.1.2.2).

This analysis will be completed and available for NRC review by the end of the respective unit preoperational testing. (COM 6.1-2) This analysis will be documented and retained in plant quality records in accordance with applicable sections of 10 CFR 50, Appendix B.

Table 6.1-1 Engineered Safety Features Component Materials\*

| Component                                    | Form          | Material         | Specification (ASTM/ASME) |                 |
|----------------------------------------------|---------------|------------------|---------------------------|-----------------|
| <b>Reactor Building Cooling Water System</b> |               |                  |                           |                 |
| Heat Exchanger†                              | Plate         | Titanium†        | SB-265 Gr 1†              |                 |
|                                              | Tubes         |                  |                           |                 |
| <b>Reactor Service Water System†</b>         |               |                  |                           |                 |
| Pump                                         | Casting       | Stainless Steel† | SA-351 Gr CF3M†           |                 |
|                                              |               |                  | SA-351 Gr CF8†            |                 |
|                                              |               |                  | SA-351 Gr CF8M†           |                 |
| Valves                                       | Casting       | Stainless Steel† | SA-351 Gr CF3M†           |                 |
|                                              | Casting       |                  |                           |                 |
|                                              | Casting       |                  |                           |                 |
|                                              |               |                  |                           | SA-351 Gr CF8†  |
|                                              |               |                  |                           | SA-351 Gr CF8M† |
|                                              | Forging       | Stainless Steel† | SA-182 Gr F316L†          |                 |
| Piping                                       | Seamless Pipe | Stainless Steel† | SA-312 Gr TP316L†         |                 |
|                                              | Welded Pipe   | Stainless Steel† | SA-358 Gr 316L†           |                 |

\* Carbon content for wrought austenitic stainless steels will be limited to 0.020% for service temperatures above 93.3°C.

† Materials are site-dependent.