

5.3 Reactor Vessel

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

5.3.1.6.1 Compliance with Reactor Vessel Material Surveillance Program Requirements

STD DEP 5.3-1

GE Licensing Topical Report (LTR) NEDO-33315P, titled “Advanced Boiling Water Reactor (ABWR) Reactor Pressure Vessel (RPV) Material Surveillance Program,” dated April 30, 2007 addresses the capsule withdrawal schedule in Section 3.2. The capsule withdrawal schedule is incorporated by reference from this LTR.

5.3.4 COL License Information

5.3.4.1 Fracture Toughness Data

The following site-specific supplement addresses COL License Information Item 5.4.

Fracture toughness data based on the limiting reactor vessel actual materials will be provided in an amendment to the FSAR in accordance with 10 CFR 50.71(e) prior to receipt of fuel on site. The data will be based on test results from the actual materials used in the RPV. (COM 5.3-1)

The evaluation methods will be in accordance with Appendix G of the ASME Boiler and Pressure Vessel Code, Section III, Division 1, 1989 Edition, excluding addenda, 10 CFR 50 Appendices G and H, and Regulatory Guide 1.99 Rev. 2.

5.3.4.2 Materials and Surveillance Capsule

The following site-specific supplement addresses COL License Information Item 5.5.

The materials and surveillance capsule program for STP 3 & 4 are in accordance with Section 4.0 of the (LTR), titled “Advanced Boiling Water Reactor (ABWR) Reactor Pressure Vessel (RPV) Material Surveillance Program,” NEDE-33315P, dated April 2007.

The Final Safety Analysis Report will be updated prior to receipt of fuel on site to identify the specific materials in each surveillance capsule and provide a plant-specific replacement for the Pressure-Temperature limits provided in Figure 5-1 of the LTR. The data will be based on test results from the actual materials used in the RPV. (COM 5.3-2)

5.3.4.3 Plant-Specific Pressure-Temperature Information

The following site-specific supplement addresses COL License Information Item 5.6.

Plant-specific calculations of RT_{NDT} , stress intensity factors, and pressure-temperature curves similar to those in Regulatory Guide 1.99 and SRP Section 5.3.2 will be provided in an amendment to the FSAR in accordance with 10 CFR 50.71(e) prior to receipt of fuel on site. The data will be based on test results from the actual materials used in the RPV. (COM 5.3-3)

The evaluation methods will be in accordance with Appendix G of the ASME Boiler and Pressure Vessel Code, Section III, Division 1, 1989 Edition, excluding addenda, 10 CFR 50 Appendices G and H, and Regulatory Guide 1.99 Rev. 2.