

## **Chapter 4 Reactor**

### **4.1 Summary Description**

This section of the referenced DCD is incorporated by reference with no departures or supplements.

### **4.2 Fuel System Design**

This section of the referenced DCD is incorporated by reference with no departures or supplements.

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### **4.3 Nuclear Design**

This subsection of the referenced DCD is incorporated by reference with the following departures and/or supplements.

#### **4.3.3.1 Nuclear Design Description**

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Replace the last paragraph with the following.

**STD COL 4.3-1-A**

There are no changes to the fuel, control rod, or core design from that described in the referenced certified design.

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#### **4.3.5 COL Information**

##### **4.3-1-A Variances from Certified Design**

**STD COL 4.3-1-A**

This COL Item is addressed in [Section 4.3.3.1](#).

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### **4.4 Thermal and Hydraulic Design**

This section of the referenced DCD is incorporated by reference with no departures or supplements.

### **4.5 Reactor Materials**

This section of the referenced DCD is incorporated by reference with no departures or supplements.

### **4.6 Functional Design of Reactivity Control System**

This section of the referenced DCD is incorporated by reference with no departures or supplements.

## **Appendix 4A Typical Control Rod Patterns and Associated Power Distribution for ESBWR**

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

### **4A.1 Introduction**

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Replace the third paragraph with the following.

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#### **STD COL 4A-1-A**

There are no changes to the fuel, control rod, or core design from that described in the referenced certified design.

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### **4A.3 COL Information**

#### **4A-1-A Variances from Certified Design**

#### **STD COL 4A-1-A**

This COL item is addressed in [Appendix 4A.1](#).

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## **Appendix 4B Fuel Licensing Acceptance Criteria**

This section of the referenced DCD is incorporated by reference with no departures or supplements.

## **Appendix 4C Control Rod Licensing Acceptance Criteria**

This section of the referenced DCD is incorporated by reference with no departures or supplements.

## **Appendix 4D Stability Evaluation**

This section of the referenced DCD is incorporated by reference with no departures or supplements.