CHAPTER 4

REACTOR

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ACRONYMS AND ABBREVIATIONS

COL	Combined License
DCD	Design Control Document
DNBR	departure from nucleate boiling ratio
FSAR	Final Safety Analysis Report

4.0 REACTOR

This section of the referenced Design Control Document (DCD) is incorporated by reference with no departures or supplements.

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.

4.3 NUCLEAR DESIGN

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

4.4 THERMAL-HYDRAULIC DESIGN

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

4.4.1.1.2 Discussion

STD COL 4.4(1) Replace the eighth paragraph in DCD Subsection 4.4.1.1.2 with the following.

The safety analysis limit of the minimum departure from nucleate boiling ratio (DNBR) is determined as 1.45 for both the channel types, accommodating the DNBR penalties incurred due to rod bows described in DCD Subsection 4.4.2.2.4 and transition core geometry, and/or reserving more core operational flexibilities.

After the actual plant-specific instrumentations are selected, it is to be confirmed whether the design limits of Min. DNBR are valid based on the relevant plant-specific instrumentation uncertainties, or the safety analysis limit of Min. DNBR value covers the new design limits of Min. DNBR and other DNBR penalties such as rod bow penalty, transition core geometry and/or reserving more core operational flexibilities. This will be completed prior to fuel load.

4.4.7 Combined License Information

STD COL 4.4(1) Replace the content of DCD Subsection 4.4.7 with the following.

4.4(1) *Design limits of Min. DNBR and safety analysis limit of Min. DNBR*

This COL item is addressed in Subsection 4.4.1.1.2.

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.