

1.2 General Provisions

The following general provisions are applicable to the Design Descriptions and the associated ITAAC.

The absence of any discussion or depiction of an item in the Design Description shall not be construed as prohibiting a licensee from using such an item, unless it would prevent an item from performing its safety functions as described or depicted in the Design Description.

When the term “operate,” “operates,” or “operation” is used with respect to an item discussed in the acceptance criteria, it refers to the actuation and running of the item. When the term “exist,” “exists,” or “existence” is used with respect to an item discussed in the acceptance criteria, it means that the item is present and meets the design commitment. Detailed supporting information on what should be present to conclude that an item “exists” and meets the Design Description is contained in the appropriate sections of Tier 2.

1.2.1 Design Descriptions

The Design Descriptions pertain only to the design of structures, systems and components of a U.S. EPR standard design and not to their operation, maintenance, and administration. In the event of an inconsistency between the Design Descriptions and the Tier 2 information, the Design Descriptions shall govern.

The Design Descriptions include a System Description, and tables and simplified schematic figures in Tier 1, where tables and figures are provided. The System Description states the system purpose, significant performance characteristics, and safety functions. Also included in the Design Description are statements of whether or not the system is safety-related, system location, key design features, seismic and ASME code classifications, major controls and displays, interlocks, Class 1E power sources and divisions, and interface requirements, as applicable.

Figures are provided for most systems, with the amount of information depicted based on the safety significance of the structures, systems, and components (SSC). Where figures are not required, generally for simple non-safety-related systems, the Design Description is sufficient to describe the system. The figures are intended to depict the functional arrangement of the significant SSC of the standard design. Valve position indications shown on these figures do not represent a specific operational state. For continuation labels on the figures, the sheet number in the label refers to the native file name shown in the lower right corner of the figures, not to the sheet number listed above the figure with the figure title. The native file name consists of three parts—the system designation (normally the KKS system name), followed by the native sheet number, followed by an indication of either Tier 1 or Tier 2. For example, native file name FAL02T1 refers to the fuel pool purification system (FAL), native sheet 02, for

Tier 1. If a continuation label refers to a figure of a different system, it is identified in the continuation label, with the system designation preceding the native sheet number of the continuation figure. If the continuation is on a native sheet number within the same system, the system designation on the continuation label is not included.

1.2.2 Implementation of ITAAC

Inspections, tests, analyses, and acceptance criteria (ITAAC) are provided in tables with the following three column format:

Commitment Wording	Inspections, Tests, Analyses	Acceptance Criteria
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Each commitment in the left-hand column of the ITAAC tables has an associated requirement for inspections, tests, or analyses (ITA) specified in the middle column of the tables.

The identification of a separate ITA entry for each commitment shall not be construed to require that separate inspections, tests, or analyses must be performed for each commitment. Instead, the activities associated with more than one ITA entry may be combined, and a single inspection, test, or analysis may be sufficient to implement more than one ITA entry.

An ITA may be performed by the licensee of the plant, or by its authorized vendors, contractors, or consultants. Furthermore, an ITA may be performed by more than a single individual or group, may be implemented through discrete activities separated by time, and may be performed at any time prior to fuel load, including before issuance of the Combined License (COL) for those ITAAC that do not necessarily pertain to as-built equipment. Additionally, ITA may be performed as part of the activities that are required to be performed pursuant to 10 CFR Part 50 (including, for example, the QA program required under Appendix B to Part 50). Therefore, an ITA need not be performed as a separate or discrete activity. Testing of automatic control functions actuated by activity monitors, i.e., radiation or radioactivity monitors, can be performed at any value within the range of the activity monitors using an established trip setpoint.

1.2.3 Discussion of Matters Related to Operations

In some cases, the Design Descriptions in this document refer to matters of operation, such as normal valve or breaker alignment during normal operational modes. Such discussions are provided solely to place the Design Description provisions in context, for example, to explain automatic features for opening or closing valves or breakers upon off-normal conditions. Such discussions shall not be construed as requiring operators during operation to take any particular action (e.g., to maintain valves or breakers in a particular position during normal operation).

1.2.4 Interpretation of Figures

The Design Descriptions include the figures in Tier 1, where the figures are provided. They are intended to depict the functional arrangement of the significant SSC of the standard design. An as-built facility referencing the certified design should be consistent with the functional arrangement shown in the figures.

1.2.5 Rated Reactor Core Thermal Power

The U.S. EPR is designed for a rated reactor core power level of 4590 megawatts thermal (MW_t).