
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

APR1400 Design Certification

Korea Electric Power Corporation / Korea Hydro & Nuclear Power Co., LTD

Docket No. 52-046

RAI No.: 281-8232
SRP Section: 14.02 – Initial Plant Test Program – Design Certification
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Question No. 14.02-52

SRP 14.2 indicates that the staff will review the adequacy of testing proposed for specific SSCs.

In FSAR Section 14.2.12.4.9, “Biological shield survey test,” the acceptance criteria indicate that accessible areas and occupancy times during power operation have been defined as described in subsection 12.3.2. However, FSAR subsection 12.3.2 does not provide any information on occupancy times. Please update FSAR subsection 12.3.2 to provide this information or reference an appropriate FSAR section.

Response

Tier 2 DCD Subsection 12.3.2 addresses shielding design. DCD Subsection 12.3.1.6 contains the discussion of radiation zoning designation with further details summarized in Table 12.3-2, including occupancy times/durations for the corresponding zones. Table 12.3-2 is a more appropriate reference rather than the stated Subsection 12.3.2.

A reference to Table 12.3-2 will be added to Tier 2 DCD Subsection 14.2.12.4.9 Biological Shield Survey Test, Sub-item 5 Acceptance Criteria pertaining to the accessible areas and occupancy time.

Impact on DCD

DCD Subsection 14.2.12.4.9 will be revised as indicated in the Attachment.

Impact on PRA

There is no impact on the PRA.

Impact on Technical Specifications

There is no impact on the Technical Specifications.

Impact on Technical/Topical/Environmental Reports

There is no impact on any Technical, Topical, or Environment Report.

APR1400 DCD TIER 2

3.0 TEST METHOD

- 3.1 Measure gamma and neutron dose rates at 50 and 100 percent power levels.

4.0 DATA REQUIRED

- 4.1 Power level
- 4.2 Gamma dose rates in the accessible locations
- 4.3 Neutron dose rates in the accessible locations

5.0 ACCEPTANCE CRITERIA

- 5.1 Accessible areas and occupancy times during power operation have been defined as described in ~~Subsection 12.3.2.~~ Table 12.3-2
- 5.2 The biological shield performs as described in Subsection 12.3.2.2.

14.2.12.4.10 Steady-State Core Performance Test

1.0 OBJECTIVE

- 1.1 To determine core power distributions using in-core instrumentation
- 1.2 To demonstrate that the core has been assembled as designed

2.0 PREREQUISITES

- 2.1 The reactor is operating at the desired power level and control element assembly (CEA) configuration with equilibrium xenon.
- 2.2 The in-core instrumentation system is in operation.