
REVISED 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 and New License Applicants
Application Section: 14.02
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Question No. 14.02-53

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

FSAR Section 14.2.12.4.9 indicates that one of the objectives of the biological shield survey tests is to determine occupancy times for areas outside the biological shield during power operations. However, acceptable occupancy times for radiological areas will need to be based on radiological conditions at the time of occupancy which could change due to plant conditions (for example, if fuel failure occurs) and surveys of radiological areas during operation will need to be conducted to ensure compliance with 10 CFR 20 requirements. In addition, RG 8.8 indicates that dose rates should be measured periodically during operation to determine current exposure potential. Therefore, occupancy times for these areas cannot be determined based on the biological shield survey test alone. Please update the objective for the biological shield survey test in the FSAR, as appropriate, such as to specify that the test will assist in determining allowable occupancy times for areas outside the biological shield.

Response - (Rev. 1)

KHNP will revise the test objective for the biological survey test specified in Section 14.2.12.4.9 to state that the test will assist in the determination of allowable occupancy time for areas outside the biological shield rather than the current wording which can be interpreted that the test is the sole means of determining the 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**4.0 DATA REQUIRED****4.1 Time-dependent data:**

4.1.1 Steam generator pressure and levels

4.1.2 Pressurizer pressure and level

4.1.3 RCS temperatures

4.1.4 Boron concentration

4.1.5 CEA drop times

5.0 ACCEPTANCE CRITERIA

5.1 The reactor is shut down and maintained in hot standby on emergency power for at least 30 minutes during a simulated loss of offsite power as described in Subsection 15.2.1.

14.2.12.4.9 Biological Shield Survey Test**1.0 OBJECTIVE**

1.1 To measure the radiation levels in accessible locations of the plant outside the biological shield

1.2 To determine occupancy times for these areas during power operation

2.0 PREREQUISITES

2.1 Radiation survey instruments have been calibrated.

2.2 Results of the radiation surveys performed at zero-power conditions are available.

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outside the biological shield