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.:	**287-8272**
SRP Section:	**09.01.02 – New and Spent Fuel Storage**
Application Section:	**9.1.2**
Date of RAI Issue:	**09/01/2015**

Question No. 09.01.02-46

The 10 CFR Part 50, Appendix A, General Design Criteria (GDC) 1, 2, 4, 5, 63, and 10CFR 52.80 (a) provide the regulatory requirements for the design of the new and spent fuel storage facilities. Standard Review Plan (SRP) Sections 9.1.2 and 3.8.4, Appendix D describes specific SRP acceptance criteria for the review of the fuel racks that are acceptable to meet the relevant requirements of the Commission's regulations identified above. The staff reviewed DCD Tier 1, Table 2.7.4.1-1 and Table 2.7.4.2-1 that specify the inspections, tests, analyses, and associated acceptance criteria for the new and spent fuel storage racks respectively. In DCD Tier 1 Subsections 2.7.4.1.1 and 2.7.4.2.1, the design commitment for the new and spent fuel storage rack respectively, states that “The (new) spent fuel storage racks are designed and constructed to accommodate design basis load and load combinations including impact due to postulated fuel handling accidents in a subcritical configuration”. In accordance with SRP 3.8.4 Appendix D, and Appendix A to 10 CFR Part 50, General Design Criteria 1, 2, 4, 5, 61, 63, and 10CFR 52.80(a), the applicant is requested to clarify and include in Table 2.7.4.1-1 and Table 2.7.4.2-1, the design commitment “The (new)spent fuel storage racks are designed and constructed to accommodate design basis load and load combinations including impact due to postulated fuel handling accidents in a subcritical configuration” and specify the “Inspections, Tests, Analyses” that will be performed and provide the ‘Acceptance Criteria” to meet the design commitment.

The applicant is requested to identify any proposed changes to and provide a mark-up of Subsections in the DCD Tier 1 and 2 and the report APR1400-H-N-NR-14012-P, Rev.0, as appropriate.

Response

The new and spent fuel storage racks are designed to maintain a subcritical configuration during normal operation and in postulated accident conditions. The dimensions of racks and cells are determined based on the results of the criticality analysis and the structural and seismic analysis including the postulated handling accident performed for the design of the racks. The inspection of the dimensions for the as-built racks and cells can be applied to confirm the installation of the

new fuel storage racks preventing criticality during normal operation and the postulated accident conditions, as provided in the response of Q 09.01.02-04 and 09.01.02-07 of RAI 79-7990.

In addition, the above information on the ITAACs has been included in the markup DCD provided in Attachment 1 and 2 of RAI 179-8190, Question 09.01.01-18.

Impact on DCD

There is no impact on the DCD.

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 Environmental Report.