
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.: 154-8064
SRP Section: 16 - Technical Specification
Application Section: 16 - Technical Specification
Date of RAI Issue: 08/17/2015

Question No. 16-43

Paragraph (a)(11) of 10 CFR 52.47 and paragraph (a)(30) of 10 CFR 52.79 state that a design certification (DC) applicant and a combined license (COL) applicant, respectively, are to propose TS prepared in accordance with 10 CFR 50.36 and 50.36a. 10 CFR 50.36 sets forth requirements for technical specifications to be included as part of the operating license for a nuclear power facility. NUREG-1432, "Standard Technical Specifications-Combustion Engineering Plants," Rev. 4, provides NRC guidance on format and content of technical specifications as one acceptable means to meet 10 CFR 50.36 requirements. SRP Section 16.0, Part III.2.A states, in part, "when reviewing a difference between the proposed TS provision and the reference TS provision, verify that the applicant's written technical or administrative reasoning in support of the difference is logical, complete, and clearly written." Staff needs to evaluate all technical differences from STS and the docketed rationale for each difference because conformance to STS provisions is used in the safety review as the initial point of guidance for evaluating the adequacy of the generic TS to ensure adequate protection of public health and safety, and the completeness and accuracy of the generic TS Bases.

The applicant is requested to place Technical Report APR1400-K-O-NR-14001-NP, "Deviation Report between NUREG-1432, [Standard TS (STS) Combustion Engineering (CE) Plants,] Rev. 4.0 and APR1400 Technical Specifications," on the Docket after updating the report with more informative justifications for technical deviations. An informative justification would describe why the deviation is needed and how it contributes to safety, providing pointers to related design or analyses information in the DCD, including any technical or topical reports submitted with the DC application. Unless the design feature addressed by a deviation is obvious, the justification "This is an intrinsic design characteristic of APR1400" provides insufficient information for the staff to evaluate the deviation's merits.

The applicant is also requested to provide the following information (possibly as a supplement to the referenced deviation technical report, if the report is upgraded and docketed as described above):

- (1) All changes associated with applicable approved technical specifications task force (TSTF) travelers that are included in NUREG-1432 Rev. 4, but are not included in the proposed generic TS and Bases; also provide rationale for not including each such change; and
- (2) All changes associated with applicable TSTF travelers that have been approved since NUREG-1432 Rev. 4, and that
 - (a) are proposed for inclusion in the proposed generic TS and Bases; or
 - (b) are not proposed for inclusion in the proposed generic TS and Bases; also provide rationale for not including each such change.

Response – (Rev. 1)

To clarify the technical difference between APR1400 and NUREG-1432, KHNP updated and submitted the Technical Report APR1400-K-O-NR-14001-NP, “Deviation Report between NUREG-1432, [Standard TS (STS) Combustion Engineering (CE) Plants,] Rev. 4.0 and APR1400 Technical Specifications, Rev.01. Further updates to reflect the RAI responses are scheduled to be done after DCD revisions are submitted.

Related to the TSTFs, KHNP has attached a summary list of the TSTF reports that are included or not included in generic TS.

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 Specification.

Impact on Technical/Topical/Environmental Report

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

Comparison of TSTF report with APR1400 TS

| Approved TSTF traveller | Title of the report | Reflection on APR1400 | Technical Rationale |
|-------------------------|--|-----------------------|---|
| 17, R2(SU) | Extension of testing frequency of containment airlock interlock mechanism from 184 days to 24 months | Reflected | Reflected in Section 3.6.2, B3.6.2. |
| 30, R3(SU) | Extension the Completion Time for inoperable isolation valve to a closed system to 72 hours | Not reflected | Risk informed Technical Specification is not applied. Instead, NUREG-1432 Rev.01 used. |
| 45, R2(SU) | Exempt verification of CIVs that are locked, sealed or otherwise secured | Reflected | Reflected in Section 3.6.3, B3.6.3. |
| 46, R1(SU) | Clarify the CIV surveillance to apply only to automatic isolation valves | Reflected | Reflected in Section 3.6.3, B3.6.3. |
| 68, R2(SU) | Containment Personnel Airlock Doors Open During Fuel Movement | Not reflected | Risk informed Technical Specification is not applied. Instead, NUREG-1432 Rev.01 used. |
| 51-A, R2(SU) | Revise containment requirements during handling irradiated fuel and core alterations | Not reflected | Risk informed Technical Specification is not applied. Instead, NUREG-1432 Rev.01 used. |
| 52, R3(SU) | Implement 10 CFR 50, Appendix J, Option B | Reflected | Reflected in FSAR Section 6.2.6. |
| 207, R5(SU) | Completion Time for Restoration of Various Excessive Leakage Rates | Not reflected | Risk informed Technical Specification is not applied. Instead, NUREG-1432 Rev.01 used. |

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| 269, R2(SU) | Allow administrative means of position verification for locked or sealed valves | Reflected | Reflected in Section 3.6.3, B3.6.3. |
| 269, R2(SU) | Allow administrative means of position verification for locked or sealed valves | Reflected | Reflected in Section 3.6.3, B3.6.3. |
| 343, R1(SU) | Containment Structural Integrity | Reflected | Reflected in Section 5.5.6. |
| 373, R2(SU) | Increase CIV Completion Time in Accordance With CE-NPSD-1168 | Not reflected | Risk informed Technical Specification is not applied. Instead, NUREG-1432 Rev.01 used. |
| 374, R0(ME) | Revision to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil | Reflected | Reflected in Section 5.5.13 |
| 440, R0(SU) | Eliminate Bases Requirement for Performing a System Walk down | Not reflected | Instead, NUREG-1432 Rev.02 used. |
| 448, R3(ME) | Control Room Habitability Model Application | Reflected | Reflected in Section 3.7.11, SR 3.7.11.4 |
| 490, R0(RP) | Deletion of E Bar definition and revision to RCS specific activity | Reflected | Reflected in Section 3.4.15 |
| 491, R2(ME) | Removal of Main Steam and Main Feed water Valve Isolation Times | Reflected | Reflected in Section 3.7.2.1, 3.7.3.1 |