

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.: 509-8591
SRP Section: 16 – Technical Specifications
Application Section: Subsections 2.0 and 2.1.2 of Section 16
Date of RAI Issue: 08/01/2016

Question No. 16-194

Paragraph (a)(11) of 10 CFR 52.47 states that a design certification (DC) applicant is to propose Technical Specifications (TS) prepared in accordance with 10 CFR 50.36 and 50.36a. NUREG-1432, “Standard Technical Specifications (STS)-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. Staff needs to evaluate all technical differences from standard TS (STS) NUREG-1432, STS Combustion Engineering Plants, Rev. 4, which is referenced by the DC applicant in DCD Tier 2 Section 16.1, 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 Writer’s Guide for Plant-Specific Improved Technical Specifications (TSTF-GG-05-01) also provides guidance for the format and content of the TS. There are format and content differences between the DCD and the Writer’s Guide. These following corrections are necessary to ensure the completeness and accuracy of the TS and Bases.

Correct the following editorial errors on page 2.0-1.

- In the title, there needs to be a space between the word “LIMITS” and the abbreviation “(SLs).
- The title for 2.1.2 should read “Reactor Coolant System (RCS) Pressure SL” vice “Reactor Coolant System (RCS) Pressure SLs”. There is only one Safety Limit in 2.1.2, so the title should be singular.

These corrections are required to ensure the accuracy of the Technical Specifications.

Response

Technical Specifications 2.0 and 2.1.2 will be revised as shown in the attachment.

Impact on DCD

Same as changes described in Impact on Technical Specifications section.

Impact on PRA

There is no impact on the PRA.

Impact on Technical Specifications

Technical Specifications 2.0 and 2.1.2 will be revised as shown in the attachment

Impact on Technical/Topical/Environmental Reports

There is no impact on the Technical/Topical/Environmental Report.

Safety Limits
2.0

2.0 SAFETY LIMITS(SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.1 In MODES 1 and 2, the departure from nucleate boiling ratio (DNBR) shall be maintained ≥ 1.29 .

2.1.1.2 In MODES 1 and 2, the peak fuel centerline temperature shall be maintained at $< 2,804.4$ °C (5,080 °F), decreasing by 32.2 °C (58 °F) per 10,000 MWD/MTU for burnup and adjusted for burnable poison per CENPD-275-P, Revision 1-P-A.

2.1.2 Reactor Coolant System (RCS) Pressure SLs

In MODES 1, 2, 3, 4 and 5, the RCS pressure shall be maintained ≤ 193.3 kg/cm²A (2,750 psia).

2.2 SL Violations

2.2.1 If SL 2.1.1.1 or SL 2.1.1.2 is violated, restore compliance and be in MODE 3 within 1 hour.

2.2.2 If SL 2.1.2 is violated:

2.2.2.1 In MODES 1 or 2, restore compliance and be in MODE 3 within 1 hour.

2.2.2.2 In MODES 3, 4, or 5, restore compliance within 5 minutes.

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RAI No.: 509-8591
SRP Section: 16.0 – Technical Specifications
Application Section: 16
Date of RAI Issue: 08/01/2016

Question No. 16-212

Paragraph (a)(11) of 10 CFR 52.47 states that a design certification (DC) applicant is to propose Technical Specifications (TS) prepared in accordance with 10 CFR 50.36 and 50.36a. NUREG-1432, "Standard Technical Specifications (STS)-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. Staff needs to evaluate all technical differences from standard TS (STS) NUREG-1432, STS Combustion Engineering Plants, Rev. 4, which is referenced by the DC applicant in DCD Tier 2 Section 16.1, 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 Writer's Guide for Plant-Specific Improved Technical Specifications (TSTF-GG-05-01) also provides guidance for the format and content of the TS. There are format and content differences between the DCD and the Writer's Guide. These following corrections are necessary to ensure the completeness and accuracy of the TS and Bases.

The applicant is requested to address an alignment issue within Technical Specification (TS) 3.7.2.

In the Conditions column of the Required Actions table, the Condition designators "C" and "D" do not align vertically with Condition designators "A" and "B".

This correction is required to ensure the correct formatting of the TS.

Response

In the Condition column of Actions Table of TS 3.7.2, the Condition designators "C" and "D" will be aligned as indicated in the attached markup.

Impact on DCD

Same as change described in the impact on Technical Specification section.

Impact on PRA

There is no impact on the PRA.

Impact on Technical Specifications

Actions Table of TS 3.7.2 will be revised as indicated in the attachment.

Impact on Technical/Topical/Environmental Reports

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

3.7 PLANT SYSTEMS

3.7.2 Main Steam Isolation Valves (MSIVs)

LCO 3.7.2 Four MSIVs shall be OPERABLE.

APPLICABILITY: MODE 1,
MODES 2 and 3 except when all MSIVs are closed and de-activated.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One MSIV inoperable in MODE 1.	A.1 Restore MSIV to OPERABLE status.	4 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Be in MODE 2.	6 hours
<p>C. ----- NOTE ----- Separate Condition entry is allowed for each MSIV. -----</p> <p>One or more MSIVs inoperable in MODE 2 or 3.</p>	<p>C.1 Close MSIV.</p> <p><u>AND</u></p> <p>C.2 Verify MSIV is closed.</p>	<p>4 hours</p> <p>Once per 7 days</p>
D. Required Action and associated Completion Time of Condition C not met.	<p>D.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>D.2 Be in MODE 4.</p>	<p>6 hours</p> <p>12 hours</p>

Align on the dotted line

Align on the dotted line