

## KHNPDCRAIsPEm Resource

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**Sent:** Thursday, August 06, 2015 7:12 PM  
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**Cc:** Ciocco, Jeff; Lee, Samuel; Tjader, Theodore; Dias, Antonio; Umana, Jessica  
**Subject:** APR1400 Design Certification Application RAI 130-8065 (16- Technical Specifications)  
**Attachments:** APR1400 DC RAI 130 SPSB 8065.pdf

KHNP,

The attachment contains the subject request for additional information (RAI). This RAI was sent to you in draft form. Your licensing review schedule assumes technically correct and complete responses within 30 days of receipt of RAIs. However, KHNP requests, and we grant, the time shown below to respond to the RAI question. We may adjust the schedule accordingly.

<u>Question</u>	<u>Time to respond</u>
16-26	30 days
16-27	60 days
16-28	60 days
16-29	60 days
16-30	30 days

Please submit your RAI response to the NRC Document Control Desk.

Thank you,

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**U.S. Nuclear Regulatory Commission**  
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**Received Date:** 8/6/2015 7:12:02 PM  
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**U.S.NRC**

United States Nuclear Regulatory Commission

*Protecting People and the Environment*

## REQUEST FOR ADDITIONAL INFORMATION 130-8065

Issue Date: 08/06/2015  
Application Title: APR1400 Design Certification Review – 52-046  
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.  
Docket No. 52-046  
Review Section: 16 - Technical Specifications  
Application Section: 16.1.1 Use and Application - Definitions

### QUESTIONS

#### 16-26

Paragraph (a)(11) of 10 CFR 52.47 and paragraph (a)(30) of 10 CFR 52.79 states 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 (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.

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 standard TS (STS) NUREG-1432, 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 LCO selection criteria from 10 CFR 50.36(c)(2)(ii)(A) thru (D) have been proposed as a new defined term in generic TS Section 1.1. Regulatory requirements are not normally duplicated in the TS; it is unnecessary and avoids potential problems or additional work were the regulation to change. Also, the LCO selection criteria (as a defined term) are not specifically mentioned elsewhere in the generic TS and again are therefore unnecessary to have in TS; though the specific LCO selection criterion invoked for inclusion of each LCO is stated in the Applicable Safety Analyses discussion in the generic TS Bases. The applicant is requested to justify adding the LCO selection criteria as a definition in generic TS Section 1.1, or remove it from DCD Tier 2 Chapter 16. (Staff noted that the Applicable Safety Analyses discussions in the proposed Bases for generic TS Sections 3.1 through 3.9 do not all use the proposed defined term, LCO SELECTION CRITERION 1, 2, 3, or 4.)

#### 16-27

10 CFR 50.36 requires that each operating license issued by the Commission contain technical specifications (TS) that set forth the limits, operating conditions, and other requirements imposed upon facility operation for the protection of public health and safety. 10 CFR

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52.47(a)(11) provides that a design certification (DC) applicant is to propose TS prepared in accordance with 10 CFR 50.36 and 50.36a.

Staff needs to evaluate all technical differences from standard TS (STS) NUREG-1432, Standard TS (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.

On July 22, 1993, the NRC issued its Final Policy Statement (58 *FR* 39132) on Technical Specifications improvements, expressing the view that satisfying the guidance in the policy statement also satisfies Section 182a of the Atomic Energy Act and 10 CFR 50.36. In the final policy statement, the NRC stated its "intent that the wording and Bases of the improved STS be used in the Technical Specification related submittal to the extent practicable." Encouraging and maintaining standardization of TS requirements, such as contained in the STS, is therefore the policy of the NRC. In the final policy statement, the NRC encouraged "all licensees who submit Technical Specification related submittals based on this Policy Statement to emphasize human factors principles."

Format, content, and punctuation of the generic TS Section 1.1 definition of LEAKAGE do not conform to the STS Section 1.1 definition. In keeping with NRC policy to maintain standardization of TS requirements, the applicant is requested to change the proposed definition so it is identical to the STS definition.

### 16-28

10 CFR 50.36 requires that each operating license issued by the Commission contain technical specifications (TS) that set forth the limits, operating conditions, and other requirements imposed upon facility operation for the protection of public health and safety. 10 CFR 52.47(a)(11) provides that a design certification (DC) applicant is to propose TS prepared in accordance with 10 CFR 50.36 and 50.36a.

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.

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The applicant proposes a definition in generic TS Section 1.1 for MAXIMUM ALLOWABLE CONTAINMENT LEAKAGE RATE ( $L_a$ ). This defined term is not included in NUREG-1432, Rev. 4, and is not needed.  $L_a$  is defined in Specification 5.5.16.c, and is also fully described in the "Applicable Safety Analyses" section of the Bases for Specifications 3.6.1 and 3.6.2. In addition these Bases also fully describe "calculated peak containment pressure ( $P_a$ )" which is used in the definition of  $L_a$ . In keeping with NRC policy to maintain standardization of TS requirements, the applicant is requested to remove the proposed defined term from generic TS Section 1.1 and from where ever else the term (in all caps) appears in the generic TS and Bases.

### 16-29

10 CFR 50.36 requires that each operating license issued by the Commission contain technical specifications (TS) that set forth the limits, operating conditions, and other requirements imposed upon facility operation for the protection of public health and safety. 10 CFR 52.47(a)(11) provides that a design certification (DC) applicant is to propose TS prepared in accordance with 10 CFR 50.36 and 50.36a.

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.

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In proposed generic TS Table 1.1-1 and in the definition of MODE, RCS cold leg temperature is used instead of RCS average temperature, which is used by the STS NUREGs and System 80+ generic TS. In keeping with NRC policy to maintain standardization of TS requirements, the applicant is requested to provide a technical justification for this difference.

### 16-30

10 CFR 50.36 requires that each operating license issued by the Commission contain technical specifications (TS) that set forth the limits, operating conditions, and other requirements imposed upon facility operation for the protection of public health and safety. 10 CFR 52.47(a)(11) provides that a design certification (DC) applicant is to propose TS prepared in accordance with 10 CFR 50.36 and 50.36a.

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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.

On July 22, 1993, the NRC issued its Final Policy Statement (58 FR 39132) on Technical Specifications improvements, expressing the view that satisfying the guidance in the policy statement also satisfies Section 182a of the Atomic Energy Act and 10 CFR 50.36. In the final policy statement, the NRC stated its "intent that the wording and Bases of the improved STS be used in the Technical Specification related submittal to the extent practicable." Encouraging and maintaining standardization of TS requirements, such as contained in the STS, is therefore the policy of the NRC. In the final policy statement, the NRC encouraged "all licensees who submit Technical Specification related submittals based on this Policy Statement to emphasize human factors principles."

Content of the definition of OPERABLE - OPERABILITY does not fully conform to the STS definition. In keeping with NRC policy to maintain standardization of TS requirements, the applicant is requested to justify all deviations from the STS definition.