

REQUEST FOR ADDITIONAL INFORMATION 520-4183 REVISION 0

1/19/2010

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 16 - Technical Specifications
Application Section: 3.3 Instrumentation

QUESTIONS for Technical Specification Branch (CTSB)

16-300

During review of confirmatory items in Revision 2 of the US-APWR TS, Section 3.3 Instrumentation, and associated bases the following apparent typographical or editorial errors were noted:

1. RAI-SRP-16-CTSB-1769/202, Page B 3.3.1-36, 1st paragraph, 5th line: Replace the word "tri" with "trip."
2. RAI-SRP-16-CTSB-1769/222, Page 3.3.1-8, Section 3.3.1, Action T: There is no logical connector between T.1 and T.2. The original RAI response included an "OR" connector. Validate the correct connector and add to this step.
3. RAI-SRP-16-CTSB-1769/222, Page B 3.3.1-39, Section B 3.3.1, ACTIONS, L.1 and L.2: With the addition of CONDITION T, the reference to "Turbine Trip – Main Turbine Stop Valve Position" should be removed from the Bases section for ACTIONS L.1 and L.2.
4. RAI-SRP-16-CTSB-1769/222, Page B 3.3.1-44/45: In both places within the RAI response text, change "12 hour" to "12 hours." Additionally, the text for Condition T.1 and T.2 in Chapter 16 Bases should be replaced with the text from the RAI response. In Revision 2, there are numerous editorial errors or deletions from the RAI response.
5. RAI-SRP-16-CTSB-1769/229, Page 3.3.1-14, Table 3.3.1-1, Item 3.b: Add a space between SR and 3.3.1.1.
6. RAI-SRP-16-CTSB-1769/235, Page B 3.3.1-49: In the last paragraph, first item, add "of" in between "verification" and "RTB operability."
7. RAI-SRP-16-CTSB-1769/235, Page B 3.3.1-49: In the last paragraph, third item, the original RAI response uses text "The Manual Reactor Trip Test for verification of RTB operability using hardwired switches." Revision 2 includes text "The Manual Reactor Trip hardwired switches." Validate the correct text.
8. RAI-SRP-16-CTSB-1769/246, During review of a TS reference, US-APWR DCD Chapter 7, Table 7.3-4, item "Main Feedwater Isolation (b) Low Tavg coincident with RT (P-4)," the Response Time is listed as 8 seconds, vice 3 seconds as indicated in the

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response to RAI No. 167-1769 REVISION 0, Question No. 16-246. Validate the correct value in this table.

9. RAI-SRP-16-CTSB-1769/248, Page 3.3.2-16, Table 3.3.2-1, Item 5A: The word "valve" should be capitalized.
10. RAI-SRP-16-CTSB-1769/263, Page B 3.3.2-40, last paragraph: Correct the first sentence to match the amended response: "While in MODES 5 and 6 including fuel handling in progress, the..."
11. RAI-SRP-16-CTSB-1769/268, Page 3.3.2-22, Table 3.3.2-1: The ALLOWABLE VALUE for item 14.c "Low-low Tavg Signal" should include a plus or minus sign to indicate the span allowed. Also, the word "low" should be capitalized in the description for Function 14.c in Table 3.3.2-1 and in the underlined description for 14.c on Bases page B 3.3.2-44.
12. RAI-SRP-16-CTSB-1769/268, Page 3.3.2-22, Table 3.3.2-1: Footnote (j) is specified for Functions 14.a, 14.b and 14.c in Modes 2 and 3. It appears that footnote (h) should be specified instead of (j), since footnote (h) already provides the same information within Table 3.3.2-1. Validate the footnote reference.
13. RAI-SRP-16-CTSB-1769/276, Page B 3.3.1-52: Under SR 3.3.1.7, the text used in the Amended response is not incorporated. Per the response, the paragraph should open with "The PSMS is self-tested on a continuous basis from..." Validate the need to effect this change in section 3.3.1, as there are other references to the RTS which would need to be changed as well. This change is correctly, and appropriately, incorporated for section 3.3.2.
14. RAI-SRP-16-CTSB-1769/291, Page B 3.3.6-5: In the third paragraph from the bottom, last sentence, change "satisfy" to "satisfies."
15. RAI-SRP-16-CTSB-1769/291, Page: B 3.3.6-6: In the first paragraph, second sentence, change "function" to "functions."
16. RAI-SRP-16-CTSB-1769/291, Page: B 3.3.6-10: In the last paragraph, change the following sentence to indicate plural usage: "...that cannot be confirmed in the continuous CHANNEL CHECK on the PSMS, are confirmed by this SR."
17. RAI-SRP-16-CTSB-1769/294, Page 3.3.1-17, Table 3.3.1-1, item 13.b: Add RAI response text to "Main Turbine Stop Valve Position" along with footnote (i). This was completed for the LOOP Signal, item 6.e, on page 3.3.2-17.
18. RAI-SRP-16-CTSB-1784/169, Page B 3.3.1-53: The second paragraph contains errors and should read: "The Note allows a normal shutdown to proceed without a delay for testing in MODE 2 and for a short time in MODE 3 until the RTBs are open and SR 3.3.1.7 is no longer required to be performed. If the unit is to be in MODE 3 with the RTBs closed for 4 hours this Surveillance must be performed prior to ~~over~~ 4 hours after entry into MODE 3."

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19. RAI-SRP-16-CTSB-1784/195, Page B 3.3.1-36: Item 6 for ACTIONS F.1/F.2 Bases was not answered. The last sentence of the 4th paragraph should read "The 12 hour time limit is based on operating experience." This is verbatim out of the WOG STS Bases for Condition E, which corresponds to Condition F in the US-APWR DCD and meets the intent of this ACTION.

20. Page 1.1-2, Definitions, CHANNEL CALIBRATION: In the third paragraph, last sentence, change "setpoint" to "setpoints."

21. Page 3.3.2-21, Table 3.3.2-1, Item 13.b: Add a space between SR and 3.3.2.4.

22. Page B 3.3.2-30: The words "coincident" and "no" should be capitalized in the header for item 7.c at the top of the page.

23. Page B 3.3.2-36, Section 11.a: In item 11.a, 4th bullet, the words "level" and "non" should be capitalized, since they describe the coincident functions of the P-4 interlock.

24. Page B 3.3.5-7, SR 3.3.5.4 Bases discussion, second paragraph from the bottom, last sentence: The word "Channel" in "Channel CALIBRATION" should be entirely capitalized.
