


MITSUBISHI HEAVY INDUSTRIES, LTD.
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TOKYO, JAPAN

July 24th, 2009

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Mr. Jeffrey A. Ciocco

Docket No. 52-021
MHI Ref: UAP-HF-09400

Subject: MHI's Responses to US-APWR DCD RAI No. 417 COLP 2540 Revision 1

Reference: 1) "Request for Additional Information No. 417 COLP 2540 Revision 1,
SRP Section: 18 - Human Factors Engineering, Application Section:
18.4 Task Analysis," dated June 30th, 2009.

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") a document entitled "Responses to Request for Additional Information No. 417 COLP 2540 Revision 1."

Enclosed is the response to the RAI contained within Reference 1.

Please contact Dr. C. Keith Paulson, Senior Technical Manager, Mitsubishi Nuclear Energy Systems, Inc. if the NRC has questions concerning any aspect of the submittals. His contact information is below.

Sincerely,



Yoshiaki Ogata,
General Manager- APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

Enclosure:

1. Responses to Request for Additional Information No. 417 COLP-2540 Revision 1

CC: J. A. Ciocco
C. K. Paulson

DOB 1
NRC

Contact Information

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Docket No. 52-021
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Enclosure 1

UAP-HF-09400
Docket No. 52-021

Responses to Request for Additional Information No. 417 COLP-2540
Revision 1

July 2009

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

7/24/2009

**US-APWR Design Certification
Mitsubishi Heavy Industries
Docket No. 52-021**

RAI NO.: NO. 417 COLP 2540 REVISION 1
SRP SECTION: 18 - HUMAN FACTORS ENGINEERING
APPLICATION SECTION: 18.4 TASK ANALYSIS
DATE OF RAI ISSUE: 6/30/2009

QUESTION NO. 18-64

Section 18.4.3 of the US APWR DCD (MUAP-DC018) revision 1, states that the task analysis results are documented in the Technical Report (Reference 18.4-4). The task analysis results provide input to the design of HSIs, procedures, and personnel training programs.

Reference 18.4-4 looks like this:

HSI Design Technical Report, MUAP-08XXX-P (Proprietary) and MUAP-08XXX-NP (Non-Proprietary), later.

The use of the word "later," instead of specifying a date indicates that this report is not complete, even though it is referenced in the DCD.

Please submit the completed HSI Design Technical Report, or, if not complete, submit a date when MHI expects to complete and submit the report to the NRC staff.

ANSWER:

The change below will be made to the DCD Subsection 18.4.5 to accurately reflect the HFE report which was submitted in the end of June.

18.4-4 HSI Design Technical Report, MUAP-09019-P (Proprietary) and MUAP-09019-NP (Non-Proprietary), June 2009.

Impact on DCD

The DCD Subsection 18.4.5 will be revised as Attachment 1 Page 18.4-5.

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA

This completes MHI's responses to the NRC's questions.

18.4.3 Results

The task analysis results are documented in the Technical Report (Reference 18.4-4). The task analysis results provide input to the design of HSIs, procedures, and personnel training programs.

18.4.4 Combined License Information

No additional information is required to be provided by a COL Applicant in connection with this section.

COL 18.4(1) Deleted

COL 18.4(2) Deleted

COL 18.4(3) Deleted

18.4.5 References

18.4-1 HSI System Description and HFE Process, MUAP-07007-P (Proprietary) and MUAP-07007-NP (Non-Proprietary), Revision 1, July 2007.

18.4-2 Card, S., Moran, T.P., and Newell, A, The Psychology of Human-Computer Interaction, Part II, Lawrence Erlbaum Associates, Hillsdale, NJ, 1983.

18.4-3 Burgy, D, Lempges, C., Miller, A., Schroeder, Van Cott, L.H., Paramore, B., Task Analysis of Nuclear Power Plant Control Room Crews, NUREG/CR-3371, Volumes 1 and 2, September 1983.

18.4-4 HSI Design Technical Report, MUAP-090198XXX-P (Proprietary) and MUAP-901908XXX-NP (Non-Proprietary), June 2009later.