

December 16, 2009

APPLICANT: MITSUBISHI HEAVY INDUSTRIES, LTD.
APPLICATION: US-APWR STANDARD DESIGN CERTIFICATION REVIEW
SUBJECT: SUMMARY OF THE NOVEMBER 16, 2009, PUBLIC MEETING WITH MITSUBISHI HEAVY INDUSTRIES, LTD TO DISCUSS CHAPTER 3 OF THE UNITED STATES – ADVANCED PRESSURIZED WATER REACTOR DESIGN CONTROL DOCUMENT

On November 16, 2009, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Mitsubishi Heavy Industries, Ltd. (MHI) at the U.S. Nuclear Regulatory Commission, 6300 Executive Boulevard, Rockville, Maryland. The purpose of this meeting was to discuss the details of the effect of Revision 2 modifications to the United States – Advanced Pressurized Water Reactor (US-APWR) Design Control Document (DCD) on Chapter 3. Included was a discussion on Section 3.7 (Seismic Design), Section 3.8 (Design of Category I Structures), and the design of piping systems and components (various sections). The primary objective of the meeting was for MHI to provide the NRC with a detailed review of the changes to Chapter 3 and their effect on the design and updating their approach to piping design to include design acceptance criteria (DAC) and revise their inspections, tests, analyses, and acceptance criteria (ITAAC). A list of attendees is provided as Enclosure 1.

Public Participation

A public meeting notice was issued and documented in the Agencywide Documents Access and Management System (ADAMS) under Accession Number ML093090326, which includes the meeting agenda. The meeting was planned with open and closed portions. Members of the public were invited. However, no members of the public attended the meeting. As a result, the entire meeting was conducted as a closed meeting.

Background

By letter dated October 27, 2009, MHI submitted Revision 2 of the US-APWR DCD. This revision reflects significant changes to the structural design. In advance of the submission of Revision 2, a public meeting was held on July 16, 2009, to discuss the changes included in the revision. The meeting summary can be found in ADAMS under Accession Number ML092090244. Due to the changes in structural design and other reasons, MHI identified the need to perform a seismic re-analysis. MHI also notified the NRC of a shift in their approach to completing the design of piping systems and components.

Meeting Discussion

During the first part of the meeting, MHI made a presentation on the “Seismic Issues” to be discussed. The presentation, Enclosure 2, can be found in ADAMS under Accession Number ML093480258. MHI and the NRC staff then discussed significant seismic and structural issues, previously communicated to MHI in several Requests for Additional Information (RAI) and the preliminary review results of the recently submitted DCD Revision 2. MHI discussed its approaches to addressing the seismic issues including, but not limited to, damping values for

the steel-concrete wall inside containment, use of uniform soil for the soil-structure interaction (SSI) analysis based on the soil-spring approach, and an alternate approach to performing the SSI analysis based on a finite element approach. The discussion regarding damping values was supplemented by a Proprietary presentation made by MHI. At the end of the meeting, MHI committed to submitting the results of its seismic re-analysis, in a technical report by the end of April 2010.

At the beginning of the second part of the meeting, MHI made a presentation on the "Updated Design Completion Plan for US-APWR Piping Systems and Components". The presentation, Enclosure 3, can be found in ADAMS under Accession Number ML093480348. The subsequent discussion focused on the revision of the ITAAC and the possible inclusion of DAC to complete the design of piping systems and components.

Concluding Remarks

The NRC staff thanked MHI for a detailed discussion of the US-APWR DCD Chapter 3 Revision and MHI's actions as a result. MHI committed to submitting the results of its seismic re-analysis by the end of April 2010, and to responding to the outstanding RAIs on Sections 3.7 and 3.8. Also, MHI will submit the changes to ITAAC that were discussed. The NRC staff will reschedule the Chapter 3 licensing review to accommodate these design changes and NRC's review.

Please direct any inquiries to William Ward at 301-415-7038, or via e-mail at William.Ward@nrc.gov.

/RA/

William Ward, Senior Project Manager
US-APWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-021

Enclosures:
As stated

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ACCESSION NO.: ML093490374; Pkg: ML093490383; *Concurred via e-mail

NRO-002

OFFICE	DNRL/NMIP: PM	DNRL/NMIP: LA	DNRL/NMIP: PM	DNRL/NMIP: BC
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DATE	12/14/2009	12/15/2009	12/16/2009	12/16/2009

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Meeting Attendance Sheet

Name	Organization/Affiliation
Ralph Seidensticker	ANL (NRC)
Yu Tang	ANL (NRC)
George Abatt	M&D (NRC)
Atsushi Kumaki	MHI
Con Wilson	MHI
Hiroyuki Fuyama	MHI
Shinji Kawanago	MHI
Takayuki Dodo	MHI
Tatsuya Hashimoto	MHI
Yosuke Katsura	MHI
C. Keith Paulson	MNES
Hikaru Oghsawara	MNES
Masahiko Kaneda	MNES
Masanori Onozuka	MNES
Masayuki Kambara	MNES
Ryan Sprengel	MNES
Takanori Ogata	MNES
Toyaki Nogami	MNES
Jeffrey Ciocco	NRC
William Ward	NRC
B.P. Jain	NRC/NRO/DE
Milton Valentin	NRC/NRO/DE
Brian Thomas	NRC/NRO/DE/SEB
Hossein Hamzehee	NRC/NRO/DNRL
John Ma	NRC/NRO/SEB
Bret Tegeler	NRO/DE
Sunwoo Park	NRO/DE
Vaughn Thomas	NRO/DE
Goutam Bagchi	NRO/DSER
Stephen Monarque	NRO/NMIP
Hou Chunkin	NRSC
Branko Galvnic	URS
Luben Todorovski	URS
Some attendees listed above attended only the seismic discussion. Attendees below attended only for piping systems and components discussion.	
Jerry Chuang	NRC
Kaihwa Hsu	NRC
Tuan Le	NRC
Y.C. (Renee) Li	NRC
Jennifer Dixon-Herrity	NRC
Ching Wang Ng	NRC

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(Revised 12/08/2009)

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