

June 1, 2011

APPLICANT: MITSUBISHI HEAVY INDUSTRIES, LTD.

APPLICATION: UNITED STATES - ADVANCED PRESSURIZED WATER REACTOR DESIGN CERTIFICATION REVIEW

SUBJECT: SUMMARY OF THE APRIL 27 - 28, 2011, PUBLIC MEETING WITH MITSUBISHI HEAVY INDUSTRIES, LTD. TO DISCUSS CHAPTER 16 OF THE UNITED STATES - ADVANCED PRESSURIZED WATER REACTOR DESIGN CONTROL DOCUMENT

On April 27 - 28, 2011, 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 office of the U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, Maryland and Two White Flint North, 11545 Rockville Pike, Rockville, Maryland. A public meeting notice was issued on April 6, 2011, and was documented in the Agencywide Documents Access and Management System (ADAMS) under accession number ML110900289. The purpose of the meeting was to discuss information referenced in the United States - Advanced Pressurized Water Reactor (US-APWR) Design Control Document (DCD), Chapter 16, "Technical Specifications." A list of attendees is provided as an enclosure.

During the two day meeting, the NRC staff and the MHI staff reviewed various sections of the marked-up copy of the Chapter 16 DCD regarding instrumentation technical specifications (TS). These reviews of various sections of the marked-up copy of Chapter 16 instrumentation TS involved discussions of open items and confirmatory items. These open items and confirmatory items had been previously submitted to MHI in the form of a Request for Additional Information (RAI). During the two day meeting, the following items were discussed:

- The NRC staff and MHI continued the March 24 - 25, 2011, public meeting discussion regarding the US-APWR reliability and risk analyses as it relates to TS Completion Times (CT), Bypass Times (BT), and Surveillance Frequencies (SF). The meeting discussions focused primarily on information contained in a draft version of Chapter 19, "Summary of plant safety monitoring system reliability analysis in probabilistic risk assessment," including reactor trip system (RTS) and engineered safety features actuation system (ESFAS) TS Tables, and sensitivity analyses case tables. The NRC staff requested that MHI revise the Chapter 19, "Summary of plant safety monitoring system reliability analysis in probabilistic risk assessment," to address differences in the values of CT, BT, and SF between the US-APWR generic TS and the Westinghouse Standard TS for the manual initiation of the reactor trip (RT) and ESFAS. Discussions regarding this topic are scheduled to continue during the two day public meeting scheduled for May 9 - 10, 2011.
- The NRC staff and MHI discussed specifics regarding the Main Control Room Isolation Instrumentation Function in the TS; specifically the need to use five conditions instead of the two originally specified in limiting condition of operation (LCO) 3.3.2, to address the

fact that (1) failure of any radiation channel affects both the Main Control Room Emergency Filtration System (MCREFS) and the Main Control Room Air Temperature

Control System (MCRATCS), resulting in a system that does not meet the single failure criterion, (2) the failure of two radiation channels of the same function affects both the MCREFS and the MCRATCS, resulting in a system that is completely inoperable, and (3) the radiation channel and train failures must be addressed under separate conditions (this is a complicated issue based on the design of the system). The NRC staff requested that MHI revise LCO 3.3.2 as necessary, (including the associated Bases discussions), to resolve the issues related to LCO 3.3.2. Discussions regarding this topic are scheduled to continue during the two day public meeting scheduled for May 9 - 10, 2011.

- The NRC staff and MHI discussed concerns raised by the NRC staff regarding the accuracy of the information presented in the Post Accident Monitoring Instrumentation Bases descriptions associated with (1) the Core Exit Temperature instrumentation configuration, and (2) the basis for the number of "Required Channels" specified for the steam generator water level wide range (WR), reactor cooling system (RCS) Hot Leg Temperature WR, RCS Cold Leg Temperature WR, and Emergency Feedwater Flow. Discussions regarding this topic are scheduled to continue during the two day public meeting scheduled for May 9 - 10, 2011.
- The NRC staff and MHI continued efforts to resolve numerous other discrepancies and inconsistencies identified in TS LCO 3.3.2 / 3.3.3 and associated Bases Sections B 3.3.2 / B 3.3.3. TS LCO and Bases discussions for the remaining sections (Sections 3.3.5, 3.3.6, and 3.3.7) will take place during the two day public meeting scheduled for May 9 - 10, 2011.

Members of the public were not in attendance during the open portion of the meeting. Please direct any inquiries to me at 301-415-0493, or via e-mail at Tarun.Roy@nrc.gov.

/RA/

Tarun C. Roy, Project Manager
US-APWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-021

Enclosure:
List of Attendees

cc w/encl: See next page

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/RA/

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NRC-001

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OFFICIAL RECORD COPY

List of Attendees

Meeting with Mitsubishi Heavy Industries, Ltd. to Discuss Chapter 16 of the United States -
Advanced Pressurized Water Reactor Design Control Document
Held on Wednesday, April 27, 2011

<u>Name</u>	<u>AGENCY/AFFILIATION</u>
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Hiroshi Shinasana	Mitsubishi Nuclear Energy Systems, Inc
Ken Scarola	Mitsubishi Nuclear Energy Systems, Inc
Tarun Roy	U.S. Nuclear Regulatory Commission
Joseph DeMarshall	U.S. Nuclear Regulatory Commission
Nicholas Saltos	U.S. Nuclear Regulatory Commission

Enclosure

List of Attendees

Meeting with Mitsubishi Heavy Industries, Ltd. to Discuss Chapter 16 of the United States -
Advanced Pressurized Water Reactor Design Control Document
Held on Thursday, April 28, 2011

<u>Name</u>	<u>AGENCY/AFFILIATION</u>
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(Revised 05/18/2011)

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