

December 21, 2010

APPLICANT: MITSUBISHI HEAVY INDUSTRIES, LTD.

APPLICATION: US-APWR STANDARD DESIGN CERTIFICATION REVIEW

SUBJECT: SUMMARY OF THE MARCH 17, 2010, MEETING WITH MITSUBISHI HEAVY INDUSTRIES, LTD. TO DISCUSS CHAPTER 18 OF THE UNITED STATES - ADVANCED PRESSURIZED WATER REACTOR DESIGN CONTROL DOCUMENT

On March 17, 2010, a category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and Mitsubishi Heavy Industries, Ltd. (MHI), Mitsubishi Nuclear Energy Systems, Mitsubishi Electric Power Products, Inc., Mitsubishi Electric Corporation representatives and members of the public. This summary includes the discussion of Implementation Plans and NUREG-0711 Criteria and the current status of the reviews of the Human Systems Interface (HSI) System Description and Human Factors Engineering (HFE) Process Topical Report. A list of attendees is provided as Enclosure 1 and the NRC staff meeting presentation slides, "US-APWR HFE Design Certification Topical Report & Design Control Document Review", dated March 17, 2010, is provided as Enclosure 2, which are available in the Agencywide Documents Access and Management System under accession number ML100830743.

IMPLEMENTATION PLANS

The NRC staff began the meeting with a discussion of the need for a common understanding regarding the level of detail required for the implementation plans. For a design certification application there is some variability in the review scope depending on the completion status of the HFE design. A key determining factor for the review is the applicant's desired approval status for each of the HFE elements. The elements could be approved at a programmatic level, at an implementation plan level, or at a completed element level.

Programmatic level submittals are not being accepted because they do not provide sufficient detail for the Design Acceptance Criteria (DAC) - Inspections, Tests, Analysis, and Acceptance Criteria (ITAAC) and downstream effects. Implementation plans describing how the criteria for each element of NUREG-0711 are addressed so there is a clear set of acceptance criteria that the DAC-ITAAC can be evaluated against and as so that the NRC staff has sufficient information to complete the Design Control Document (DCD) Safety Evaluation Report (SER). Results of the summary reports are needed for a longer term to communicate how the ITAAC has been addressed.

Following NUREG-0711 Section 1.2.1(3), applicants are expected to submit two reports for the NRC review. The first is an implementation plan and the second is a results summary report. The NRC staff asked MHI to clarify their plans for submitting the implementation plans.

For the Human Reliability Analysis (HRA), the NRC staff presented a list of documents that MHI has submitted and reviewed. The NRC staff stated that they were unclear about the relationship between certain documents. The DCD does not reference these documents but the roadmap submitted by MHI indicates they contain relevant information. In addition, the NRC staff referred to NUREG-0711 and stated that the Risk Important Human Actions should be

addressed in the Function Analysis (FA), Task Analysis (TA), and HSI design; Procedure Development and training, to show that tasks meet the performance time and workload requirements.

The NRC staff stated that they are not looking for how to perform the HRA, but rather how MHI will utilize the Human Actions in the FA, TA, HSI design; procedure development; and training.

STATUS OF THE REVIEW OF THE UNITED STATES - ADVANCED PRESSURIZED WATER REACTOR AND HSI SYSTEM DESCRIPTION AND HFE PROCESS TOPICAL REPORT

The applicant stated that it would try to supply the remaining implementation plans by end of April 2010.

The NRC staff stated that the topical report Part 4: Determination of acceptability pending resolution of RAIs, includes an application to operating plants which will require the Office of Nuclear Reactor Regulation (NRR) approval. For Part 5, there is insufficient detail to support the SER, but it is acceptable to reference it in the DCD but must be evaluated within the DCD SER.

MHI stated that their understanding from previous meetings and audits was that the review for the operating fleet would follow the review for new reactors. The NRC staff stated that the NRR was reviewing the topical report and would review the SER and contribute their evaluation. MHI stated that their concern was to get a SER for new reactors. If the schedule was impacted by the NRR review, MHI expressed that their priority was a SER from the Office of New Reactors.

CONCLUDING REMARKS

At the conclusion of the public meeting, the NRC staff summarized the meeting by reviewing the presentation material and action items resulting from the discussions.

Please direct any inquiries to Michael S. Magee at 301-415-6988, or via e-mail at Michael.Magee@nrc.gov.

Sincerely,

/RA Jeffrey Ciocco for/

Michael S. Magee, 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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