

February 28, 2012

APPLICANT: MITSUBISHI HEAVY INDUSTRIES, LTD.

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

SUBJECT: SUMMARY OF THE JANUARY 9, 2012 PUBLIC TELECONFERENCE
WITH MITSUBISHI HEAVY INDUSTRIES, LTD. TO DISCUSS THE
METHODOLOGY USED IN IDENTIFYING THE STRUCTURES,
SYSTEMS, AND COMPONENTS THAT ARE INCLUDED IN TECHNICAL
SPECIFICATIONS

On January 9, 2012, a Category 1 public teleconference was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Mitsubishi Heavy Industries, Ltd. (MHI). The meeting notice was issued on December 28, 2012, and was documented in the Agencywide Documents Access and Management System under accession number ML113560231. The purpose of the meeting was to discuss MHI's methodology to identify the structures, systems, and components (SSCs) that are included in technical specifications (TS).

The staff has reviewed MHI's response to Request for Additional Information (RAI) 610-4761. Based on the US-APWR shutdown risk results, the shutdown core damage frequency (CDF) equals the shutdown large release frequency (LRF). No credit was given for containment closure in the risk assessment. In its response to RAI 610-4761, MHI reported that the US-APWR shutdown CDF, removing all equipment not required by TS, to be $2.1\text{E-}5$ per reactor year. This result means that the LRF, removing all equipment not required by TS, to be $2.1\text{E-}5$ per reactor year, which exceeds the Commission's goals for new reactors. After reviewing MHI's response, the NRC staff concluded that voluntary initiatives must be implemented for the US-APWR design to meet the Commission's goals for new reactors.

As follow-up to RAI 610-4761, the NRC staff issued RAI 669-5219, which requests MHI to consider adding shutdown TS for safety injection and containment closure in accordance with Criterion 4 of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50.36(c)(2)(ii). This regulation states, "A technical specification limiting condition for operation of a nuclear reactor must be established for each item meeting one or more of the following criteria: (D) *Criterion 4*. A structure, system, or component which operating experience or probabilistic risk assessment (PRA) has shown to be significant to public health and safety." Meeting the Commission's goals without voluntary initiatives are one of several attributes indicating which SSCs evaluated in the PRA may be important to public health and safety.

As part of the discussion of MHI's response to RAI 669-5219, the NRC staff informed MHI that they are working on guidance on how to meet Criterion 4 of 10 CFR 50.36 and plans to provide it for comments by the end of March 2012. This new guidance will apply to new and current plants. The staff informed MHI that they were developing a new RAI that requests MHI to add containment isolation in safe shutdown conditions to TS.

The draft RAI (RAI 6281) was sent on January 24, 2012. At the end of the teleconference, MHI stated that they will submit a revised response to RAI 669-5219 Question 19-494 within 3 weeks of the day of the call.

Please direct any inquiries to me at 301-415-3249, or via e-mail to Ruth.Reyes@nrc.gov.

/RA/

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

Docket No. 52-021

Enclosures:
As stated

cc w/encl: See next page

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/RA/

Ruth C. Reyes, Project Manager
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DATE	02/ 28/2012	02/28/2012	02/28/2012	02/28/2012	02/28/2012

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List of Attendees

Meeting with Mitsubishi Heavy Industries, Ltd. to Discuss the Methodology Used in Identifying the Structures, Systems, and Components that were Included in the Technical Specifications Meeting
Held on January 9, 2012

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W. Gibson	Dominion Virginia Power
T. Hicks	Dominion Virginia Power
K. Miller	Dominion Virginia Power
A. Passwater	Dominion Virginia Power
D. Woodlan	Luminant Generation Company, LLC.
K. Kawai	Mitsubishi Heavy Industries, Ltd.
N. Kinoshita	Mitsubishi Heavy Industries, Ltd.
K. Kuroiwa	Mitsubishi Heavy Industries, Ltd.
T. Nirasawa	Mitsubishi Heavy Industries, Ltd.
J. Curry	Mitsubishi Nuclear Energy Systems
J. Green	Mitsubishi Nuclear Energy Systems
G. Hughes	Mitsubishi Nuclear Energy Systems
F. Tanaka	Mitsubishi Nuclear Energy Systems
E. Wisler	Mitsubishi Nuclear Energy Systems
S. Blomgren	NuScale Power
R. Snuggerud	NuScale Power
H. Le	U.S. Nuclear Regulatory Commission
E. McKenna	U.S. Nuclear Regulatory Commission
L. Mrowca	U.S. Nuclear Regulatory Commission
H. Phan	U.S. Nuclear Regulatory Commission
M. Pohida	U.S. Nuclear Regulatory Commission
R. Reyes	U.S. Nuclear Regulatory Commission
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Enclosure

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(Revised 01/26/2012)

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