


MITSUBISHI HEAVY INDUSTRIES, LTD.
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TOKYO, JAPAN

February 15, 2010

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

Attention: Mr. Jeffery A. Ciocco

Docket No. 52-021
MHI Ref: UAP-HF-10044

Subject: MHI's Responses to US-APWR DCD RAI No. 518-3967

Reference: 1) "Request for Additional Information No. 518-3967 Revision 2, SRP Section: 02 – Site Characteristics and Site Parameters," dated 1/12/2010.

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") a document entitled "Response to Request for Additional Information No. 518-3967, Revision 2."

Enclosed is the response to 1 RAI contained within Reference 1. This transmittal completes the response to this RAI.

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

Sincerely,

Y. Ogata

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

Enclosure:

1. Response to Request for Additional Information No. 518-3967, Revision 2

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

Contact Information

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Docket No. 52-021
MHI Ref: UAP-HF-10044

Enclosure 1

UAP-HF-10044
Docket No. 52-021

Response to Request for Additional Information No. 518-3967,
Revision 2

February, 2010

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

2/15/2010

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

RAI NO.: NO. 518-3967 REVISION 2
SRP SECTION: 02 - Site Characteristics and Site Parameters
APPLICATION SECTION: 2.0
DATE OF RAI ISSUE: 1/12/2010

QUESTION NO. RAI 02-1:

10 CFR 52.1 (a) provides the following definitions:

Site parameters are the postulated physical, environmental and demographic features of an assumed site. Site parameters are specified in a standard design approval, standard design certification, or manufacturing license.

Site characteristics are the actual physical, environmental and demographic features of a site. Site characteristics are specified in an early site permit or in a final safety analysis report for a combined license.

Staff requests the applicant clarify the use of terms "characteristics" and "parameters" within FSAR Tier 2, Chapter 2, "Site Characteristics".

For example - in Section 2.1 - Geography and Demography, states "the Combined License (COL) Applicant is to describe the site geography and demography including the site parameters identified below." The COL applicant should be describing characteristics, not parameters.

ANSWER:

MHI has reviewed the use of the terms "characteristics" and "parameters" within the design control document (DCD) Tier 2, Chapter 2, "Site Characteristics," and believe it is consistent with the definitions provided in 10 CFR 52.1(a), except in Section 2.1 and Subsection 2.1.4. In both Section 2.1 and Subsection 2.1.4, "parameters" is to be corrected to "characteristics" in the next revision of the DCD.

Impact on DCD

See Attachment 1 for the mark-up of DCD Tier 2, Section 2.1, changes to be incorporated.

- Replace the first paragraph of Section 2.1 with the following:

“The Combined License (COL) Applicant is to describe the site geography and demography including the site characteristics identified below.”

- Replace COL 2.1(1) in Section 2.1.4 with the following:

“COL 2.1(1) *The COL Applicant is to describe the site geography and demography including the specified site characteristics.*”

See Attachment 2 for the mark-up of DCD Tier 2, Chapter 1, changes to be incorporated.

- Replace COL 2.1(1) in Table 1.8-2, Sheet 1 with the following:

“COL 2.1(1) *The COL Applicant is to describe the site geography and demography including the specified site characteristics.*”

Impact on COLA

FSAR Table 1.8-201 will need to be revised for the COL Item statement change.

Impact on PRA

There is no impact on the PRA.

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

2.1 Geography and Demography

The Combined License (COL) Applicant is to describe the site geography and demography including the site parameters characteristics identified below.

2.1.1 Site Location and Description

Site-specific information of the site location and description includes:

- Plant and site property lines
- Location and orientation of principal plant structures within the site area
- Location of any industrial, military, or transportation facilities and commercial, institutional, recreational, or residential structures within the site area
- Highways, railroads, and waterways that traverse or are adjacent to the site
- Prominent natural and manmade features in the site area.

2.1.2 Exclusion Area Authority and Control

Site-specific information on the exclusion area includes the size of the area, and the exclusion area authority and control. If the EAB extends into a body of water, a discussion is provided with the bases upon which it has been determined that the applicant holds (or will hold) the authority required by 10 Code of Federal Regulations (CFR) 100.21(a), Non-Seismic Siting Criteria (Reference 2.1-1).

Non-related plant activities that occur, or could potentially occur, within the EAB, if any, are to be described, and their effects evaluated on plant operations and safety considered.

2.1.3 Population Distribution

Site-specific information regarding population distribution is based on the latest census data. The population is also projected through the anticipated life of the plant, and is to include the bases of the projections including methodology and sources used to obtain the data.

2.1.4 Combined License Information

COL 2.1(1) The COL Applicant is to describe the site geography and demography including the specified site parameters characteristics.

2.1.5 References

- 2.1-1 Non-seismic Siting Criteria, Reactor Site Criteria, Energy, Title 10, Code of Federal Regulations, Part 100.21(a), U.S. Nuclear Regulatory Commission, Washington, DC.

Table 1.8-2 Compilation of All Combined License Applicant Items
for Chapters 1-19 (sheet 1 of 44)

COL ITEM NO.	COL ITEM
COL 1.1(1)	<i>The COL Applicant is to provide scheduled completion date and estimated commercial operation date of nuclear power plants referencing the US-APWR standard design.</i>
COL 1.1(2)	<i>The Combined License (COL) Applicant is to identify the actual plant location.</i>
COL 1.2(1)	<i>The COL Applicant is to develop a complete and detailed site plan in the site-specific licensing process.</i>
COL 1.4(1)	<i>The COL Applicant is to identify major agents, contractors, and participants for the COL application development, construction, and operation.</i>
COL 1.8(1)	<i>The COL Applicant is to demonstrate that the interface requirements established for the design have been met.</i>
COL 1.8(2)	<i>The COL Applicant is to provide the cross-reference identifying specific FSAR sections that address each COL information item from the DCD</i>
COL 1.8(3)	<i>The COL Applicant is to provide a summary of plant specific departures from the DCD, and conformance with site parameters.</i>
COL 1.9(1)	<i>The COL Applicant is to address an evaluation of the applicable RG, SRP, Generic Issues including Three Mile Island (TMI) requirements, and operational experience for the site-specific portion and operational aspect of the facility.</i>
COL 2.1(1)	<i>The COL Applicant is to describe the site geography and demography including the specified site parameters characteristics.</i>
COL 2.2(1)	<i>The COL Applicant is to describe nearby industrial, transportation, and military facilities within 5 miles of the site, or at greater distances as appropriate based on their significance. The COL Applicant is to establish the presence of potential hazards, determine whether these accidents are to be considered as DBEs, and the design parameters related to the accidents determined as DBEs.</i>