

16-5, KONAN 2-CHOME, MINATO-KU TOKYO, JAPAN

February 18, 2011

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

Attention: Mr. Jeffrey A. Ciocco

Docket No. 52-021 MHI Ref: UAP-HF-11042

# Subject: MHI's Response to US-APWR DCD RAI No. 683-5251 Revision 0 (SRP Section 08.04)

Reference: 1) "Request for Additional Information No. 683-5251 Revision 0, SRP Section: 08.04 - STATION BLACKOUT - Application Section: Section 8.4" dated January 20, 2011.

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. 683-5251 Revision 2."

Enclosed is the response to a question contained within Reference 1.

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

Sincerely,

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

Enclosure:

1. Response to Request for Additional Information No. 683-5251 Revision 2

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

Contact Information

C. Keith Paulson, Senior Technical Manager Mitsubishi Nuclear Energy Systems, Inc. 300 Oxford Drive, Suite 301 Monroeville, PA 15146 E-mail: ck\_paulson@mnes-us.com Telephone: (412) 373-6466

Docket No. 52-021 MHI Ref: UAP-HF-11042

Enclosure 1

## UAP-HF-11042 Docket No. 52-021

## Response to Request for Additional Information No. 683-5251 Revision 2

February 2011

#### **RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**

02/18/2011

**US-APWR Design Certification** 

Mitsubishi Heavy Industries

Docket No.52-021

RAI NO.:683-5251 REVISION 2SRP SECTION:SRP SECTION: 08.04 - STATION BLACKOUTAPPLICATION SECTION:8.4DATE OF RAI ISSUE:01/20/2011

#### QUESTION NO. : 08.04-14

DCD Tier 2, Section 8.4.2.2 states that the AAC power system will be inspected and tested periodically to demonstrate operability and reliability. The DCD states that reliability of the AAC power system will meet or exceed 95 percent as determined in accordance with NSAC-108 or equivalent methodology to meet the Criterion 5 of Regulatory Position C.3.3.5 in RG 1.155. Because the inspection and testing to demonstrate operability and reliability will be conducted by the COL applicant over the lifetime of the NPP, the DCD should include these inspection and testing requirements as a COL Information Item. Provide an appropriate COL Information Item in a future revision of the DCD to ensure that the AAC power system will be inspected and tested periodically to demonstrate operability and reliability in accordance with RG 1.155, C3.3.5.

#### ANSWER:

The requirements for periodic inspections and testing to demonstrate operability and reliability of the AAC system are contained in section 8.4.2.2 of the DCD. Testing and maintenance of the AAC is evaluated under the reliability assurance program and the maintenance rule program as described in the DCD. The addition of a COL item is not deemed necessary to reflect the applicant's commitment to testing and inspection that are described in the DCD. To do so in this case would be inconsistent with other inspection, surveillance and maintenance programs discussed in the DCD (e.g. batteries, gas turbine generators). The applicants commit to the DCD when they reference the DCD.

However, during the development of the response to a similar RAI question (Question #08.04-02; Docket No. 52-034 & 52-035) it was determined that updates to Chapter 8 of the US-APWR Design Control Document were required. These changes were transmitted to the NRC Staff via letter UAP-HF-10334 (Docket 52-021).

### Impact on DCD

The 8th paragraph of DCD Subsection 8.4.2.2 will be revised as follows:

The AAC power system will be inspected and tested periodically <u>based on</u> <u>manufactures' recommendations and Reg 1.155</u> to demonstrate operability and reliability. <u>The surveillance test interval does not exceed 3 months (Quarterly).</u> <u>During the quarterly test the AAC is started and brought to operating conditions.</u> <u>Additionally, during every refueling outage, the AAC generator is tested by</u> <u>performing a timed start and rated load capacity test.</u> The reliability of the AAC power system will meet or exceed 95% as determined in accordance with NSAC-108 (Reference 8.4-2) or equivalent methodology to meet the Criterion 5 of Section C.3.3.5, RG 1.155 (Reference 8.3.1-21). <u>Testing and maintenance of the AAC is evaluated</u> <u>under the reliability assurance program and the maintenance rule program.</u>

Impact on R-COLA and S-COLA. There is no impact on R-COLA and S-COLA.

Impact on PRA

There is no impact on PRA.