

  
**MITSUBISHI HEAVY INDUSTRIES, LTD.**  
16-5, KONAN 2-CHOME, MINATO-KU  
TOKYO, JAPAN

May, 30, 2008

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-08093

**Subject: MHI's Responses to US-APWR DCD RAI No.3**

**References:** 1) "Request for Additional Information No. 3 Revision 0, SRP Section: 08.03.02 – DC Power Systems (Onsite), Application Section 08.03.02," dated April 30, 2008.

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.3 Revision 0."

Enclosed is the response to an RAI that is 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,



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

Enclosure:

1. Response to Request for Additional Information No.3 Revision 0

CC: L. J. Burkhart  
C. K. Paulson

Contact Information

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Docket No. 52-021  
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Enclosure 1

UAP-HF-08093  
Docket No. 52-021

Response to Request for Additional Information No.3 Revision 0

May, 2008

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**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**

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5/30/2008

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

**RAI NO.:** NO.3 REVISION 0  
**SRP SECTION:** 08.03.02 – DC Power Systems (Onsite)  
**APPLICATION SECTION:** 08.03.02  
**DATE OF RAI ISSUE:** 4/30/2008

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**QUESTION NO. : 01-1**

Section 8.3.2 of the FSAR states that battery rooms are going to be ventilated to the outside to preclude hydrogen concentration of more than 2%. This is inconsistent with Regulatory Guide 1.128, "Installation Design and Installation of Vented Lead-Acid Storage Batteries for Nuclear Power Plants", Section C, Part 6, which states that "The ventilation system shall limit hydrogen accumulation to one percent of the total volume of the battery area." provide your justification for using 2% maximum hydrogen concentration instead of the 1% maximum hydrogen concentration as recommended in Regulatory Guide 1.128.

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**ANSWER:**

MHI's position is that the 2% limit described in Regulatory Guide 1.189 is appropriate for the "fire protection" scenario, over the Regulatory Guide 1.128. This is as Regulatory Guide 1.189 is consistent with the IEEE Std 484, which also states that the hydrogen concentration be below 2%.

**Impact on DCD**

There is no impact on DCD.

**Impact on COLA**

There is no impact on COLA.

**Impact on PRA**

There is no impact on PRA.

This concludes MHI's response to the NRC's questions.