MITSUBISHI HEAVY INDUSTRIES, LTD.

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

TOKYO, JAPAN

December 23, 2009

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-09573

Subject: MHI's Response to US-APWR DCD RAI No. 504-4028 REVISION 2

References: 1) "Request for Additional Information No. 504-4028 REVISION 2, SRP Section: 09.05.06 - Emergency Diesel Engine Starting System, Application Section: 9.5.6," dated December, 1, 2009

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") a document entitled "Responses to Request for Additional Information No. 504-4028 REVISION 2."

Enclosed are the responses to 2 RAIs 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. Responses to Request for Additional Information No. 504-4028 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-09573

Enclosure 1

UAP-HF-09573 Docket No. 52-021

Responses to Request for Additional Information No. 504-4028 REVISION 2

December 2009

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

12/23/2009

US-APWR Design Certification Mitsubishi Heavy Industries Docket No. 52-021	
RAI NO.:	NO. 504-4028 REVISION 2
SRP SECTION:	09.05.06 - EMERGENCY DIESEL ENGINE STARTING System
APPLICATION SECTION:	9.5.6
DATE OF RAI ISSUE:	12/1/2009

QUESTION NO. : 09.05.06-24

The response to RAI 09.05.06-14 stated that to resolve this RAI the last sentence of the first paragraph of DCD Subsection 9.5.6.2.2 will be revised as follows: The valves on the cross-connect and discharge piping can be aligned manually, <u>and these valves normally open</u> so that either air receiver can be recharged from either <u>any</u> arcompressor.

The staff requests that MHI dockets its response confirming the above actions on part of MHI to resolve the RAI question #08.03.02-1.

Since these valves are aligned manually and since no power operated valves are shown in the compressor discharge piping on Revision 2 of DCD Figure 9.5.6-1, presumably the valves are manual valves that are normally open. If this is the case, the phrase "and these valves normally open..." should be revised to say "and these valves <u>are</u> normally open". The current phrasing implies that the valves are normally closed and will open to supply air to either air receiver.

Reference: MHI's Responses to US-APWR DCD RAI No. 319-2147, MHI Ref: UAP-HF-09293, dated June 9, 2009, ML091630628.

ANSWER:

MHI agrees to revise the last sentence of the first paragraph of DCD Subsection 9.5.6.2.2 to add the word "are".

Impact on DCD

The last sentence of the first paragraph of DCD Subsection 9.5.6.2.2 will be revised as follows:

The valves on the cross-connect and discharge piping can be aligned manually, and these valves **are** normally open so that either air receiver can be recharged from any air compressor.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

12/23/2009

US-APWR Design Certification Mitsubishi Heavy Industries Docket No. 52-021 NO. 504-4028 REVISION 2 09.05.06 - EMERGENCY DIESEL ENGINE STARTING SYSTEM **APPLICATION SECTION:** 9.5.6

QUESTION NO.: 09.05.06-25

The revised Figure 9.5.6-1 shows an ASME Section III/ASME B31.1 boundary at the piping inlet to the GT skid. The figure should also show the ASME Section III boundary at the air receiver inlet check valve. This boundary is shown as NS/SR. Note also that this symbol does not agree with the corresponding note on this figure - the note identifies the abbreviation as SR/NR, not NS/SR.

12/1/2009

ANSWER:

RAI NO .:

SRP SECTION:

DATE OF RAI ISSUE:

NOTE about boundary at inlet check valve of air receiver will be revised to identify boundary between ASME section III and ASME B31.1

Impact on DCD

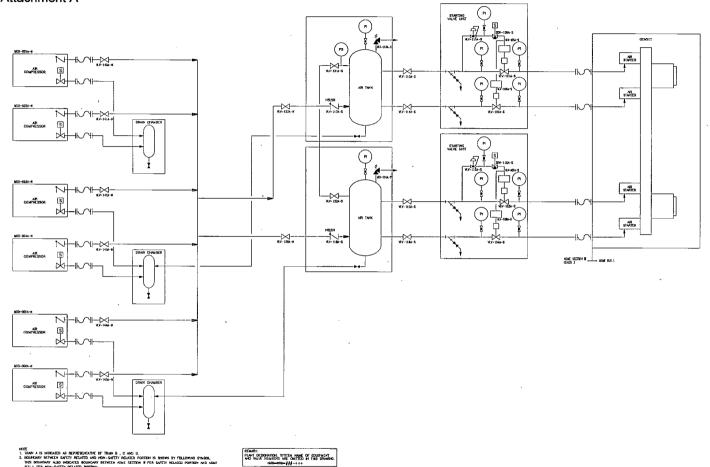
NOTE 2 in Figure 9.5.6-1 will be revised as follows:

Boundary between safety related and non-safety related portion is shown by following symbol. This boundary also indicates boundary between ASME section III for safety related portion and ASME B31.1 for non-safety related portion. SRINR: Safety Related | Non-Safety Related NS|SR: Non-Safety Related | Safety Related

Based on above, Figure 9.5.6-1 will be revised as shown in Attachment A.

Impact on COLA There is no impact on the COLA.

Impact on PRA There is no impact on the PRA.



Attachment A

Figure 9.5.6-1 Gas Turbine Generator Starting System Schematic Diagram