


MITSUBISHI HEAVY INDUSTRIES, LTD.
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TOKYO, JAPAN

November 6, 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-09513

Subject: MHI's Response to US-APWR DCD RAI No.469-3362 Revision 1

References: 1) "Request for Additional Information No. 469-3362 REVISION 1, SRP Section: 09.05.07 - Emergency Diesel Engine Lubrication System, Application Section: Tier 2 Section 9.5.7," dated October, 6, 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. 469-3362 Revision 1."

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,



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

Enclosure:

1. Response to Request for Additional Information No.469 Revision 1

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

DOB
NRO

Contact Information

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Docket No. 52-021
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Enclosure 1

UAP-HF-09513
Docket No. 52-021

Responses to Request for Additional Information No. 469-3362
Revision 1

November 2009

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

11/06/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.: 469-3362 REVISION 1
SRP SECTION: 09.05.07 – Emergency Diesel Engine Lubrication System
APPLICATION SECTION: TIER 2 9.5.7
DATE OF RAI ISSUE: 10/6/2009

QUESTION NO: 09.05.07-18

Supplemental to Question No. 09.05.07-8 (RAI 9.5.7-08; RAI Set No. 320-2010, Rev. 1; MHI Ref: UAP-HF-09294, dated 6/9/09, ML091630627): The changes to Tier 1, Table 2.6.4-1 provided in the response to RAI No. 242-2153 (Section 14.3.3, MHI Ref: UAPHF-09215, dated 4/27/09, ML091240112) addresses the ASME Code Section III components for support systems that are required to support the safety functions of starting and operating the GTG. While the lubrication system is a GTG support system that is required to support the operation of the GTG, the response to Question 09.05.07-8 states that the system is designed to manufacturer's standards. Provide the basis for a safety-related GTG support system that is not in accordance with ASME III and provide more specific design, construction and testing criteria that ensure the support system will perform its safety function. In addition, Table 2.6.4-1 should be revised to address the distinction between ASME III GTG support systems and non-ASME III support systems or portions of support systems.

ANSWER:

As an explanation in the face to face meeting on 6th August, lubrication system is housed in gas turbine engine-gear box package. This means that lubrication system is provided as a part of dedicated GTG from commercial grade item. Therefore, lubrication system will be purchased as gas turbine engine from manufacturer, and is not designed specifically. In a factory test, pressure and temperature of lubrication oil will be measured, and acceptance criteria for lubrication system are that their values are within acceptance value. Process of qualification for commercial grade item is as explained in the face to face meeting on 28th September.

Impact on DCD

There is no impact on the DCD.

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA.

This completes MHI's response to the NRC's question.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

11/06/2009

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

RAI NO.: 469-3362 REVISION 1
SRP SECTION: 09.05.07 – Emergency Diesel Engine Lubrication System
APPLICATION SECTION: TIER 2 9.5.7
DATE OF RAI ISSUE: 10/6/2009

QUESTION NO: 09.05.07-19

Supplement to Question No. 09.05.07-11 (RAI 9.5.7-11; RAI Set No. 320-2010, Rev. 1; MHI Ref: UAP-HF-09294, dated 6/9/09, ML091630627): The original RAI requested a discussion of the design requirements that are important to the reliability of the system. Since the response to Question No. 09.05.07-8 (RAI 9.5.7-08, RAI Set No. 320-2010) states that the lubrication system is designed to manufacturer's standards and not to ASME Section III standards and since failure of these components can cause the GTG to trip, the design requirements that reduce the potential for failure of these devices should be provided.

ANSWER:

As indicated in response to Question No. 09.05.07-18, lubrication system is provided as commercial grade item. Therefore, this system is not based on ASME Section III. However, the lubrication system will be provided with commercial grade dedication in accordance with EPRI NP-5652 as approved procedure by NRC, and the reliability of the system will be ensured.

Impact on DCD

There is no impact on the DCD.

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA.

This completes MHI's response to the NRC's question.