

# REQUEST FOR ADDITIONAL INFORMATION 470-3363 REVISION 1

10/6/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 09.05.08 - Emergency Diesel Engine Combustion Air Intake and Exhaust System  
Application Section: Tier 2 Section 9.5.8

QUESTIONS for Balance of Plant Branch 1 (AP1000/EPR Projects) (SBPA)

09.05.08-18

**Supplement to Question No. 09.05.08-4 (RAI Set No. SBPB 321-2271, Rev. 1; MHI Ref: UAP-HF-09295, dated 6/9/2009, ML091630626):** The original response addresses compliance with GDC 2 but does not address the required codes and standards applicable to the ventilation/cooling function components such as ductwork, fans, and dampers. The DCD should specify the required industry codes and standards that will ensure the reliability and performance of the system components.

09.05.08-19

**Supplement to Question No. 09.05.08-6 (RAI Set No. SBPB 321-2271, Rev. 1):** Since intake air filters are commonly provided for stationary GTG installations, additional justification should be provided for their elimination from the US-APWR EPS GTGs.

09.05.08-20

**Supplement to Question No. 09.05.08-7 (RAI Set No. SBPB 321-2271, Rev. 1):** The response to Question No. 09.05.08-7 does not address the potential for recirculation of exhaust gases to the GTG building ventilation/cooling air intake. The response does not provide a technical basis (e.g., analysis) for the statement that an accidental release of carbon dioxide will not degrade GTG performance. The statement that the storage is located away from the GTGs is not adequate. In addition, the response does not indicate any revisions to the DCD to address these issues. Provide a description of the design to prevent recirculation of exhaust gases to the GTG building ventilation air intake and provide a technical basis (as requested in the original RAI) for the design to prevent GTG performance degradation due to ingestion of service gases stored on site.

09.05.08-21

**Supplement to Question No. 09.05.08-12 (RAI Set No. 321-2271, Rev. 1):** System piping/ductwork of air intake, turbine exhaust, air supply and air exhaust should be Quality Group C. Revise the DCD accordingly.

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09.05.08-22

**Supplement to Question No. 09.05.08-17 (RAI Set No. 321-2271, Rev. 1):** The method of testing the GTGCAIES described in the response to Question 09.05.08-17 does not necessarily demonstrate the system's capability to maintain the room temperature at or below the design maximum room temperature if the test is performed when outdoor ambient air temperatures are not at or near the design maximum outdoor temperature. The test method should address how the test conditions and results will be used to demonstrate system capability at design maximum outdoor ambient temperature.