

2/28/2011

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: 9.5.8

QUESTIONS for Balance of Plant Branch 1 (SBPA)

09.05.08-28

RAI No. 09.05.08-28 - In response to US-APWR RAI No. 618-4829, Rev 2, MHI states that the inlet air filters for the emergency power supply gas turbine generators (GTGs) will be deleted from the MHI design and replaced with weatherproof louvers and screen. While the staff finds the justification provided by MHI for deletion of the inlet filters acceptable, the proposed new arrangement may not be adequate to ensure that freezing rain and/or snow could not obstruct the screen and degrade the performance of the GTGs. GE Energy provides guidance for a weatherproof gas turbine inlet design in their technical paper GER-3419A, "Gas Turbine Inlet Air Treatment." One approach acceptable to the staff is a weather hood over the inlet, sized to minimize the ingestion of snow and rain to an acceptable level. The applicant should provide justification for the current design or propose an alternate design with a description of how the design will ensure that rain and/or snow cannot degrade the performance of the GTGs.