

# REQUEST FOR ADDITIONAL INFORMATION 359-2590 REVISION 0

5/13/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 03.05.01.01 - Internally Generated Missiles (Outside Containment)  
Application Section: DCD 3.5.1.1

QUESTIONS for Balance of Plant Branch 2 (ESBWR/ABWR) (SBPB)

03.05.01.01-2

RAI 3.5.1.1.3-S01 ( P2 - Supplemental RAI)

The Nuclear Regulatory Commission's (NRC) Standard Review Plan (SRP) Section 3.5.1.1 (III) (4) states that the applicant needs to address the procedures, analysis, and design to ensure that pressurized gas bottles will not become missiles capable of damaging SSCs important to safety to the extent that safety-related functions are compromised. The NRC staff has reviewed Revision 1 of the Tier 1 Design Control Document (DCD) for the US-Advanced Pressurized Water Reactor (US-APWR). As previously noted by the NRC staff in **RAI 3.5.1.1-03**, the staff requested the applicant to revise DCD Tier 2, Table 1.8.2, "Compilation of All Combined License Applicant Items for Chapters 1-19," to include a COL information item which requires the COL holder to establish/provide procedures to ensure that portable pressurized gas cylinders located/stored outside containment will not become/generate missiles that may adversely impact safety-related SSCs during seismic events.

In the response dated 01/28/09, to RAI 3.5.1.1-03. Mitsubishi declined to include a new COL item to require the COL holder to establish procedures to ensure that pressurized gas cylinders located/stored outside containment will not become or generate missiles that may adversely impact safety-related SSCs. In its response Mitsubishi stated that the design features addressed in the Mitsubishi response are provided through standard plant criteria and would not necessitate a site specific COL item. While the staff agreed with Mitsubishi's description of pressurized gas bottle design features, the staff concludes that the requirements to restrain gas cylinders as well as to store in an orientation to minimize the potential for missile generation are operational issues that require the use of procedures to ensure consistent implementation.

Therefore, revise DCD Tier 2, Table 1.8.2, "Compilation of All Combined License Applicant Items for Chapters 1-19," to include a COL information item which requires the COL holder to establish procedures to ensure that portable pressurized gas cylinders located/stored outside containment will not become/generate missiles that may adversely impact safety-related SSCs during seismic events. This COL information item should also address implementation of procedures to remove unsecured maintenance equipment located outside the containment, prior to operations, to a location where it is not potential hazard to SSCs important to safety or seismically restrained to prevent it from becoming a missile. In addition, provide a schedule as to when these procedures will be implemented. The staff believes that these procedural controls should be in-

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place prior to fuel load. Provide a markup of the DCD in your response and indentify in which revision the change will appear.