US-APWRRAIsPEm Resource

From: Ciocco, Jeff
Sent: Wednesday, June 13, 2012 10:34 AM
To: us-apwr-rai@mhi.co.jp; US-APWRRAIsPEm Resource
Cc: Le, Tuan; Colaccino, Joseph; Galvin, Dennis; Hamzehee, Hossein
Subject: US-APWR Design Certification Application RAI 943-6536 (3.9.3)
Attachments: US-APWR DC RAI 943 EMB 6536.pdf

MHI,

The attachment contains the subject request for additional information (RAI). This RAI was sent to you in draft form. Your licensing review schedule assumes technically correct and complete responses within 30 days of receipt of RAIs.

Please submit your RAI response to the NRC Document Control Desk.

Thank you,

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United States Nuclear Regulatory Commission
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From: Ciocco, Jeff

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REQUEST FOR ADDITIONAL INFORMATION 943-6536 REVISION 0

6/13/2012

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 03.09.03 - ASME Code Class 1, 2, and 3 Components
Application Section: SRP Section 03.09.03

QUESTIONS for Engineering Mechanics Branch (EMB)

03.09.03-30

10 CFR 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for light Water Power Reactors." Each boiling or pressurized light-water nuclear power reactor fueled with uranium oxide pellets within cylindrical zircaloy or ZIRLO cladding must be provided with an emergency core cooling system (ECCS) that must be designed so that its calculated cooling performance following postulated loss-of-coolant accidents conforms to the criteria set forth in paragraph (b) of 10 CFR 50.46.
GSI 191 identifies the concern that debris and possible blockage of PWR sumps impact to the ECCS and recirculation flow path.
During the April 16-17 audit of MHI Recirculation Flow Path Design Change, the staff has reviewed the specification 4CS-UAP-20120006, "Basic Design Requirement and Specifications for Debris Interceptors" Rev. 0, dated 04/12/2012 depicts a transfer pipe debris interceptor. The transfer pipe opening into the containment is protected from large debris by a vertical debris interceptor.
The NRC staff requests that applicant describes the design basis, load combinations and the use of jet loads for the debris interceptor stress analysis. In addition, the applicant is requested to provide basis for the methodology and assumptions used to analyze the debris interceptor. The applicant is requested to revise the DCD to include a summary of this information.


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