

## US-APWRRRAIsPEm Resource

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**From:** Buckberg, Perry  
**Sent:** Friday, December 13, 2013 9:39 AM  
**To:** 'us-apwr-rai@mhi.co.jp'; US-APWRRRAIsPEm Resource  
**Cc:** Dixon-Herrity, Jennifer; Schroer, Suzanne; Mrowca, Lynn; Foster, Rocky  
**Subject:** US-APWR Design Certification Application RAI 1068-7342 (19 - Probabilistic Risk Assessment and Severe Accident Evaluation)  
**Attachments:** US-APWR DC RAI 1068 SPRA 7342.pdf

MHI,

The attachment contains the subject request for additional information (RAI). This RAI was sent to you in draft form on December 11, 2013 resulting in no need for clarification. Your licensing review schedule assumes technically correct and complete responses when the response is issued.

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

Thanks,

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U.S. Nuclear Regulatory Commission

Office of New Reactors

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**From:** Buckberg, Perry

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**Options**

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## REQUEST FOR ADDITIONAL INFORMATION 1068- 7342

Issue Date: 12/13/2013

Application Title: US-APWR Design Certification - Docket Number 52-021

Operating Company: Mitsubishi Heavy Industries

Docket No. 52-021

19 - Probabilistic Risk Assessment and Severe Accident Evaluation

### **QUESTION:**

19-597

In RAI Question 19-275, the staff requested additional information regarding the basis for not including HVAC in the fault trees other than the fault tree developed for the motor-driven EFW pumps. The staff issued follow-up RAI Question 19-516 requesting clarification. In its November 25, 2013, response to RAI Question 19-516, MHI made the following statement regarding the heat-up analysis for the Class 1E electrical room, Class 1E UPS room, and the Class 1E battery charger room:

The initial room temperature is assumed to be 90°F. Room temperatures are controlled between 50°F and 95°F. The assumed initial temperature is slightly below the maximum room temperature and is reasonable for PRA analyses.

The basis for this statement is not provided in the clarification response. Please provide a basis for this statement, which may include the results of sensitivity analyses. Specifically, if the room temperature is acceptable if the initial room temperature is assumed to be at the maximum.

In its November 25, 2013, response MHI also made the following statement regarding the heat-up analysis for the Class 1E electrical room, Class 1E UPS room, and the Class 1E battery charger room:

No margin on heat generation rate is assumed, which is reasonable for PRA analyses.

The basis for this statement is not provided in the clarification response. Please provide the basis for this statement, which should include the details of the heat-up analyses, as there is no additional margin to provide the technical reviewer confidence in the calculations.

Additionally, the November 25, 2013, response to RAI Question 19-516 does not include the results of the heat-up analyses for the Class 1E electrical room, Class 1E UPS room, and the Class 1E battery charger room. Please provide these results (i.e., temperature 24 hours after loss of HVAC system).