MRP-169
NRC Staff's Comments on Industry's Draft Response on Two RAI Questions

Question 1—

It is not clear whether the industry used the bounding loads to perform the net section collapse analyses shown in Table 1 of the draft response. A bounding net section collapse analyses should be based on the maximum pipe loads for the weld analyzed for each applicable load combination (i.e., under Service Levels A, B, C, and D).

Demonstration Analysis

For demonstration purposes, the staff is interested in seeing bounding net section collapse analysis results (with minimum structural factors) for reactor vessel inlet and outlet nozzles, and reactor coolant pump suction and discharge nozzles. For each location, provide OWOL and OWOL1 results for each bounding load combination (under Service Levels A, B, C, and D) for a range of plants.

Plant-Specific Analysis

The staff intents to require that plant-specific OWOL designs include a demonstration for the OWOL1 condition that the calculated structural factors based on the plant-specific load combinations (under Service Levels A, B, C, and D) satisfy the structural factors required by ASME Code Section XI as shown in Table 2 of the draft response. If the structural factor results for Service Level D are less than 1.4 but greater than 1.0, the plant-specific analysis shall justify the acceptability of the OWOL design.

Because of concerns raised by this RAI question, the staff does not support sample inspection (e.g., inspecting 25% of the population) of OWOLs. The staff finds the sample inspection scheme unacceptable at this time. At a minimum, each OWOL needs to be examined once every 10-year inspection interval.

Question 2—

The draft response to Question 2 is acceptable because the FSWOL and OWOL design is coupled with the required flaw evaluation discussed in the response to this question which is required by MRP-169.