

From: Andrea Keim
To: Harold Chernoff; William Koo
Date: Thu, May 20, 2004 4:05 PM
Subject: Relaxation Request

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Attached are my preliminary questions. Bill let me and Harold know if you have anything to add.

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REQUEST FOR ADDITIONAL INFORMATION
RELATED TO REQUEST FOR
RELAXATION OF THE REQUIREMENTS OF THE FIRST REVISED ORDER EA-03-009
REGARDING REACTOR PRESSURE VESSEL HEAD INSPECTIONS
POINT BEACH NUCLEAR PLANT UNIT NO. 1
DOCKET NO. 50-266

The NRC staff has reviewed the information the licensee provided that supports the proposed relaxation request and requests the following information to clarify the portion of the submittal regarding the limited examination distance below the J-groove nozzle weld.

- 1) The request states that "UT of the most highly stressed portion of the nozzle (the weld heat affected zone) is unaffected by this limitation." Provide tabular listings or graphs of the maximum stresses in the cross-section from the top of the J-groove weld region to the nozzle end for a range of nozzle angles. Indicate the location of the weld on these graphs.
- 2) Does the structural integrity evaluation use the crack-growth formula in industry report MRP-55? The staff has not made a determination on the subject industry report. Therefore, if using MRP-55 agree to and document the following condition:

If the NRC staff finds that the crack-growth formula in industry report MRP-55 is unacceptable, the licensee shall revise its analysis that justifies relaxation of the Order within 30 days after the NRC informs the licensee of an NRC-approved crack growth formula. If the licensee's revised analysis shows that the crack growth acceptance criteria are exceeded prior to the end of the current operating cycle, this relaxation is rescinded and the licensee shall, within 72 hours, submit to the NRC written justification for continued operation. If the revised analysis shows that the crack growth acceptance criteria are exceeded during the subsequent operating cycle, the licensee shall, within 30 days, submit the revised analysis for NRC review. If the revised analysis shows that the crack growth acceptance criteria are not exceeded during either the current operating cycle or the subsequent operating cycle, the licensee shall, within 30 days, submit a letter to the NRC confirming that its analysis has been revised. Any future crack-growth analyses performed for this and future cycles for RPV head penetrations must be based on an acceptable crack growth rate formula.
- 3) What is the initial flaw size (depth and length) for the flaw tolerance evaluation calculations. Discuss the basis for the initial flaw size. In addition, provide a basis for the calculations based on nozzle 20 are bounding for the other 16 nozzles that did not

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receive a minimum examination of one inch below the weld. What are the stresses for the 17 nozzles at the lowest examined distance.

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