Vogtle PEmails

From: Hoellman, Jordan
Sent: Wednesday, September 09, 2015 3:12 PM
To: Vogtle PEmails
Subject: Draft RAIs for LAR-15-010 for 9/10/15 Public Meeting
Attachments: LAR-15-010_RAIs.docx

Jordan Hoellman
Project Manager
NRO / DNRL / LB4
U.S. Nuclear Regulatory Commission
office: TWFN 6-F33
phone: (301) 415-5481
email: Jordan.Hoellman2@nrc.gov

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LAR-15-010: Requests for Additional Information (RAIs)

RAI 1:
The GTAW process was used for all of the test welds. Page 11/27 of LAR-15-010 states, in part, that, “The GTAW process is used for many of the production welds. However, other processes are also used for production welds.” The LAR-15-010 then states that SMAW, GMAW, and FCAW are also used in production. The staff requests the percentage of production welds created using different welding processes (ex. GTAW, GMAW, FCAW, SMAW) to confirm that the test welds are representative of the production welds.

RAI 2:
The welded couplers within the scope of LAR-15-010 are subject to various temperatures that can impact the mechanical properties of the coupler system. Page 14/27 of LAR-15-010 discusses the impacts of temperature on the welded couplers. LAR-15-010 stated that the Charpy impact testing of 20 ft-lb at 0°F are provided to assure that the filler metal remains ductile under low temperature service conditions. Clarify that the service temperature of the couplersis bounded by the Charpy test data.

RAI 3:
In LAR-15-010, WEC provided a proprietary calculation showing that stress in the attachment weld remain within the elastic range of the weld material for the load level equivalent to 125% times the yield strength and area of the rebar. This calculation compared the shear stress of attachment weld against the yield stress (developed from tensile testing) of weld material. Staff finds that this comparison *“the shear stress of attachment weld against the yield stress (developed from tensile testing)of weld material”* may not appropriately demonstrate that the attachment weld would remain within the elastic range at the load level indicated above. Therefore, the staff request WEC to provide additional information, which includes an evaluation with comparative stress component.

RAI 4:
The staff reviewed the methodology to calculate the factor of safety for the Phase 2 testing in the LAR as well as during an audit on 8/26/15. The staff requests clarification in the LAR on the methodology used to calculate at least a 1.50 factor of safety between the weld stress at 125% of the specified yield strength of the rebar, and the 90%/95% confidence interval result from the tests using the specified minimum tensile strength of the weld.

RAI 5:
The staff reviewed Document VSS_VSE_000002, dated 6/24/2015, that contains the static and cyclic test results for the Phase I testing. Page 11/12 of VCSS_VSE_000002 contains the test results for the three cyclically tested #11 size couplers. The tensile strength of coupler FF-22/FF-22B wasbelow the required average strength.A comment on the document states that Page 12 of the report contains an additional test sample that is a replacement for FF-22/FF-22B. Page 12/12 of VCSS-VSE-000002 contains the cyclic test results of a forth tested #11 size coupler, labeled FW-57/FW57B.The staff requests the justification for testing an additional test sample, FW-57/FW57B, as a replacement for FF-22/FF-22B.