

PMSTPCOL PEmails

From: Eudy, Michael
Sent: Wednesday, June 29, 2011 5:06 PM
To: Tai, Tom; Hawkins, Kimberly; Chakrabarti, Samir; Chakravorty, Manas; Mansour Tabatabaie; peter Arnold (E-mail); M.K.Ravindra; Price, John E
Cc: STPCOL
Subject: Follow up for 6/29/11 3.7/3.8 Open Item telecon
Attachments: Followup to RAI 3 8 4-33_Clean (6-27-2011).doc

Here is the staff clarification questions regarding the response to RAI 03.08.04-33 discussed during today's conference call.

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301-415-3104

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Follow-up Question to RAI 03.08.04-33

In its response to RAI 03.08.04-33 with letter U7-C-STP-NRC-100208 Attachment 21 Page 3 of 7, the applicant stated that:

“Appendix B - Steel Embedments, includes changes in ACI 349-97 based on later research. The changes in Appendix B are for the local design of embedment plates and do not affect the design of the major concrete elements. Additionally, the supplemental requirements defined in the Staff Positions in DCD Table 3.8 -10 will have a larger impact on the embedment design.”

It appears that the applicant is comparing the provisions of ACI 349-97, Appendix B, with those of the ABWR DCD Table 3.8-10. However, ACI 349-97, Appendix B was not endorsed by the NRC.

In its evaluation the staff noted that according to FSAR, Rev. 04, Table 1.8-20, RG 1.142 is changed to Revision 2, Nov 2001, which endorses ACI 349-97 with the exception of Appendix B (Anchoring to Concrete): “This regulatory guide delineates the extent to which ACI 349-97, except for Appendix B, “Steel Embedments,” is acceptable to the NRC staff. In a separate action, the staff intends to endorse Appendix B of ACI 349-97 in a regulatory guide that is being developed to address anchoring components and structural supports in concrete.”

SRP 3.8.3, II.2, Rev 2, March 2007 lists under applicable codes ACI 349 as supplemented with additional guidance by RG 1.142 and 1.199.

SRP 3.8.4, II.4 (A), Rev 2, March 2007 lists as acceptance criteria: “For concrete structures, the procedures are in accordance with ACI 349, as supplemented by RG 1.142. The design and analysis of anchors (steel embedments) used for component and structural supports on concrete structures are acceptable if found in accordance with Appendix B to ACI 349, as supplemented by RG 1.199.”

RG 1.199, Nov. 2003, under C. Regulatory Position, states: “1. The procedures and standards of Appendix B to ACI 349-01 are acceptable to the NRC staff as described and supplemented below. The recommendations are applicable to the types of anchors discussed in Section B.1, “Definitions,” and B.2, “Scope,” of Appendix B to ACI 349-01.”

Since RG 1.199 is not listed in FSAR, Rev. 4, Table 1.8-20 as an applicable guidance to STP 3&4, the applicant is requested to clarify which provisions are being used for steel embedments for both the standard plant structures and the site-specific structures.