

Discussion points relayed to the licensee after our internal technical discussion 11-12-2011

1. Related to SB-42
  - a. Compilation of calculations, testing, etc. related to S.B. cracking into a clear and concise report that addressed NRC 3 technical focus questions SB 25, 26, 27
  - b. Current 12/12/11 completion as part of CR-2011-3346 is not acceptable for justification for earlier startup.
  - c. NRC needs this clear and concise report with sufficient time for review prior to startup.
2. Request Professors Sozen and Darwin presence on NRC call tomorrow; if unavailable tomorrow, request licensee establish call between the professors and the NRC as early as Monday.
3. Technical concern
  - a. ACI 349.3R not applicable to laminar cracking
  - b. 360° laminar crack does not address Prof. Darwin's concern that circumferential steel be located outside crack region to support the conclusion that "no mode change or operating restrictions" are required.
    - i. Were the professors aware of the 360° postulated laminar cracking in upper shield building?
    - ii. Appear Prof. Darwin stipulates cracking to be outside spliced region.
4. Technical Notes:
  - a. Top of shield building - 360° around 20' down from the top
    - i. Challenges Prof. Darwin concern that rebar splices be outside cracked region
    - ii. No ACI standard for evaluation and no licensee structural evaluation
  - b. Concern that sampling did not eliminate I.F. cracking at top of SB (different undefined failure mechanism Then in the shoulder)
  - c. Outside shoulder area at top, what is the technical explanation of why the cracking is limited to the outer rebar mat and does not extend through the rebar mat thickness.
  - d. Any splice in cracked regions require further evaluation – Prof. Darwin
    - i. Design calc – fully effective rebar, unverified assumption (ACI 349.3R not applicable to laminar cracking)