



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

July 12, 2010
U7-C-STP-NRC-100165

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

South Texas Project
Units 3 and 4
Docket Nos. 52-012 and 52-013
Response to Request for Additional Information

Attached is the response to an NRC staff question included in Request for Additional Information (RAI) letter number 345 related to Combined License Application (COLA) Part 2, Tier 2, Section 3.4.2. Attachment 1 provides the response to RAI question RAI 03.04.02-9.

In addition, Attachment 2 identifies a question from RAI letter number 334 that requires an extension, provides the reason the extension is needed, and provides the date by which a response is expected to be submitted to the NRC staff.

No revisions to the COLA are required as a result of this RAI response.

There are no commitments in this letter.

If you have any questions regarding this response, please contact me at (361) 972-7136, or Bill Mookhoek at (361) 972-7274.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 7/12/10

Scott Head
Manager, Regulatory Affairs
South Texas Project Units 3 & 4

jep

Attachments: 1. RAI 03.04.02-9
2. Response Date Extension for RAI Question

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NRD

cc: w/o attachment except*
(paper copy)

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RAI 03.04.02-9**QUESTION:**

In its response to RAI 03.04.02-1 (RAI 3322 Question 13161), the applicant stated that the hydrodynamic effects of above ground flooding have been evaluated following the provisions in ASCE 7-05 and referred to responses to four other RAIs (RAI 03.08.01-4, RAI 03.04.02-2, RAI 03.04.02-4, and RAI 03.04.02-5) for the resolution of RAI 03.04.02-1. The applicant is requested to compare and justify the dynamic load effects of wave action generated by the applicant with those generated based on the provisions of the reference given in SRP Section 3.4.2.II (3) and to track the closure status of the above noted four RAIs.

RESPONSE:

Waves generated based on the provisions of the reference given in Standard Review Plan (SRP) Section 3.4.2.II (3) are discussed in FSAR Section 2.4S.3.6, which refers to FSAR Section 2.4S.4.3.1, which concludes that the maximum flood level, including the maximum wave run-up, would be El. 34.4 ft MSL. Table 2.4S.4-8 presents the water levels due to dam break, wind set-up and wave run-up at STP 3 & 4 for the critical fetch. The dynamic load effects due to wave run-up splash of 0.4 ft above plant grade level would be negligible in comparison to out-of-plane design basis loads such as tornado wind pressure for seismic Category I structures. The methodology given by the Coastal Engineering Manual (CEM), Reference 2.4S.4-13, was adopted to estimate the wave height and wave run-up at STP 3 & 4 power block. The procedures outlined in the CEM use the wind speed, wind duration, water depth, and over-water fetch distance, and the run-up slope surface characteristics as input. Reference 2.4S.4-13 is the "Coastal Engineering Manual," U.S. Army Corps of Engineers, June 2006, which is a later version of the reference given in SRP Section 3.4.II (3).

As discussed in COLA Section 2.4S.4.2.2.4.3 and in response to RAI 03.04.02-1, the 44 pounds per square foot hydrodynamic drag force is due to velocity of the Main Cooling Reservoir breach flood flow.

Response Date Extension for RAI Question

RAI Question	Reason for Extension	Extended Response Date
02.04.05-10	Additional time needed for RAI 02.04.05-10, related to flooding due to probable maximum storm surge, to evaluate additional initial conditions and scenarios to ensure that the worst case storm is modeled.	July 27, 2010