May 12, 2008

Mr. Gregory Gibson, Manager
Regulatory Affairs
STP Nuclear Operating Company
P. O. Box 289
Wadsworth, TX 77483

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 34 RELATED TO THE SRP SECTION 02.04.05 FOR THE SOUTH TEXAS COMBINED LICENSE APPLICATION

Dear Mr. Gibson:

By letter dated September 20, 2007, South Texas Project Nuclear Operating Company (STPNOC) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U. S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 45 days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, you may contact me at 301-415-1146 or Raj.Anand@nrc.gov, or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

/RA/

Raj Anand, Project Manager
ESBWR/ABWR Projects Branch 2
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking No: 246

Enclosure:
Request for Additional Information

cc: William Mookhoek

If you have any questions or comments concerning this matter, you may contact me at 301-415-1146 or Raj.Anand@nrc.gov, or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

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cc: William Mookhoek

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OFFICE	SBPB/TR	SBPB/BC	NGE2/PM	OGC	NGE2/L-PM
NAME	HAhn*	MThaggard*	RAnand*	JBiggins*	GWunder*
DATE	5/06/08	5/08/08	5/08/08	5/09/08	5/12/08

***Approval captured electronically in the electronic RAI system.**

OFFICIAL RECORD COPY

Request for Additional Information

South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co.
Docket No. 52-012 and 52-013
SRP Section: 02.04.05 - Probable Maximum Surge and Seiche Flooding
Application Section: 02.04S.5 - Probable Maximum Surge and Seiche Flooding

QUESTIONS

02.04.05-1

(a) Provide the SURGE code and supporting input and output files used to estimate the probable maximum storm surge (PMSS) at the coast near Matagorda, Texas. (b) Provide the input and output files of the HEC-RAS application used to estimate backwater effects corresponding to PMSS values obtained from the SURGE model.

02.04.05-2

Provide an explanation of why a wind stress correction factor of 1.1 was used when, as stated in FSAR Section 2.4S.5.2.3.1, Page 2.4S.5-4, “the stresses introduced into the air by the drops can be 10-20% of the wind stress.”

02.04.05-3

Explain why the HEC-RAS backwater analysis was not carried out for the Little Robbins Slough through the Palacios Bay.

02.04.05-4

(a) Explain how SLOSH MOM water level predictions were extrapolated to account for PMH conditions. (b) Is the PMH used in this extrapolation the same as the one used in the SURGE analysis to estimate PMSS at the coast near Matagorda, Texas? (c) How was it verified that the extrapolation is valid and conservative? (d) Discuss the conservatism in choosing the PMH forward speed listed in Table 2.4S.5-2.

02.04.05-5

Explain why the PMH determined from NOAA NWS 23 was not used as input to run the SLOSH model to estimate water surface elevations for the PMSS.

02.04.05-6

The NOAA NWS 23 report did not use hurricane data from approximately the last 30 years. Explain the efforts to adjust the estimated PMH parameters in light of more recent hurricanes that have occurred since the NOAA NWS 23 report was published.

02.04.05-7

Provide an assessment of seismically induced seiche in the MCR.