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. 32 RELATED TO THE SRP SECTION 02.04.03 FOR THE SOUTH TEXAS COMBINED LICENSE APPLICATION

Dear Mr. Gibson:

By letter dated September 20, 2007, STP 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: 243

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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ESBWR/ABWR Projects Branch 2
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Enclosure:
Request for Additional Information

cc: William Mookhoek

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ADAMS Accession No. ML01340395 NRO-002

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 Nos. 52-012 and 52-013
SRP Section: 02.04.03 - Probable Maximum Flood (PMF) on Streams and Rivers
Application Section: 02.04S.3 - Probable Maximum Flood (PMF) on Streams and Rivers

QUESTIONS

02.04.03-1

Provide a map, preferably a GIS coverage, of the Colorado River Basin including both the upper and lower basins' boundaries with annotations for the six highland lakes and their impounding dams.

02.04.03-2

What are the spillway discharge capacities of the dam impounding Lake O.H. Ivie and the Mansfield dam?

02.04.03-3

Provide details of the linear extrapolation used to extend the channel rating curves between Mansfield Dam and Matagorda Bay described in FSAR Section 2.4S.3.3.

02.04.03-4

In FSAR Section 2.4.S.3.4.1.4, clarify the following statement: "These initially calibrated model parameters were further adjusted to match the peaks of historic flood frequencies estimated at various stream gauging stations located within the study area."

02.04.03-5

In FSAR Section 2.4S.3.4.2.1, (a) explain why the nine dams were not included in the HEC-HMS modeling of PMF Scenario 1 and (b) explain why the antecedent storm event (40% of PMP) was modeled separately from the full PMP storm modeling.

02.04.03-6

In FSAR Section 2.4S.3.5.3.1, explain why the water level in the Colorado River at the downstream most cross-section used in the HEC-RAS model is unaffected by tidal conditions.

02.04.03-7

(a) In FSAR Section 2.4S.3, provide a discussion supporting the assumption that "…the major hydrologic features (including dams and reservoirs) in the river basin have not changed since 1985." (b) In FSAR Section 2.4S.3.1, provide details on how the following conclusion was reached: "…snow melt and antecedent snow pack are not a factor in the production of floods at the STP 3 and 4 site." (c) In FSAR Section 2.4S.3.4.2.1, provide a discussion of how the constant precipitation loss rate of 0.05 in/hr, adopted for the PMF study, is conservative.

(d) In FSAR Section 2.4S.3.5.3.1, provide a discussion regarding the appropriateness of the boundary conditions used in the HEC-RAS modeling. Also, discuss the appropriateness of Manning's n values used in the study.

02.04.03-8

In FSAR Section 2.4S.3.5.3.1, Model Boundary Conditions, the normal depth of water at the downstream boundary of the site (RS 383+64.5) is estimated using NAVD88 which is different from what was used in the previous section (i.e., NGVD29). Please clarify the mismatch of the datum.