

December 2, 2008

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 74 RELATED TO
SRP SECTION 02.03.04 FOR THE SOUTH TEXAS PROJECT COMBINED
LICENSE APPLICATION

Dear Mr. Head

By letter dated September 20, 2007, STP Nuclear Operating Company (STP) 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 **30** 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, I can be reached at 301-415-6197 or by e-mail at Tekia.Govan@nrc.gov or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

Sincerely,

/RA/

Tekia V. Govan, 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. 1554

Enclosure:
Request for Additional Information

cc:
Mr. William Mookhoek
Mr. Richard Bense

If you have any questions or comments concerning this matter, I can be reached at 301-415-6197 or by e-mail at Tekia.Govan@nrc.gov or you may contact George Wunder at 301-415-1494 or George.Wunder@nrc.gov.

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Docket Nos. 52-012
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Enclosure:
Request for Additional Information

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Mr. Richard Bense

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ADAMS Accession No. ML083360683

NRO-002

OFFICE	RSAC/TR	RSAC/BC	NGE2/PM	OGC	NGE2/L-PM
NAME	BHarvey	CCox	TGovan	SBrock	GWunder
DATE	10/23/2008	10/24/2008	11/13/2006	11/14/2008	11/14/2008

*Approval captured electronically in the electronic RAI system.

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Request for Additional Information No.1554 Revision 2

12/1/2008

South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013

SRP Section: 02.03.04 - Short Term Atmospheric Dispersion Estimates for Accident Releases
Application Section: FSAR Section 2.3S.4

QUESTIONS for Siting and Accident Consequences Branch (RSAC)

02.03.04-6

Revise FSAR Section 2.3S.4.2 to be more coherent.

FSAR Section 2.3S.4.2 describes the short-term atmospheric dispersion estimates performed for accident releases.

(a) The discussion concerning the atmospheric dispersion computer program ARCON96 and the resulting control and technical support center χ/Q values could be moved from FSAR Section 2.3S.4.2.1.1 (Offsite Dispersion Estimates) to its own section titled "Onsite Dispersion Estimates."

(b) The couple of sentences on hazardous chemical releases scattered throughout FSAR Section 2.3S.4.2.1 (Postulated Accidental Radioactive Releases) could be moved to FSAR Section 2.3S.4.2.2 (Hazardous Material Releases).

02.03.04-7

Justify the statement in FSAR Section 2.3S.4.2 that the assessment of atmospheric dispersion factors at the exclusion area boundary (EAB) and outer boundary of the low population zone (LPZ) is required by 10 CFR Part 50, Appendix E and revise FSAR Section 2.3S.4.2 accordingly.

FSAR Section 2.3S.4.2 describes the calculations used to derive short-term atmospheric dispersion estimates for accident releases and states that 10 CFR Part 50, Appendix E, requires an assessment of atmospheric dispersion factors at the EAB and LPZ. Elucidate this requirement as stated in Appendix E.

02.03.04-8

Review an apparent discrepancy between the 0-2 hour outer boundary of the low population zone (LPZ) atmospheric dispersion factor (χ/Q value) listed in FSAR Section 2.3S.4.2.1.1 and FSAR Table 2.3S-24 and revise the FSAR as necessary.

FSAR Section 2.3S.4.2.1.1 summarizes the offsite atmospheric dispersion estimates for postulated accidental radioactive releases; similarly, FSAR Table 2.3S-24 provides χ/Q results at the LPZ. The staff notes the following discrepancy between the LPZ χ/Q values listed in FSAR Section 2.3S.4.2.1.1 and FSAR Table 2.3S-24:

Section 2.3S.4.2.1.1 lists the 0-2 hour LPZ value as $4.76E-5$ whereas Table 2.3S-24 lists the highest 0-2 hour LPZ value as $5.05E-5$ (WSW sector).

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(Revised 11/05/2008)

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