

January 28, 2010

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 316 RELATED TO
SRP SECTION 12.02 and 12.03-12.04 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.

S. Head

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If you have any questions or comments concerning this matter, I can be reached at 301-415-3104 or by e-mail at Michael.Eudy@nrc.gov or you may contact George Wunder at 301-415-1494 or by e-mail at George.Wunder@nrc.gov.

Sincerely,

/RA/

Michael Eudy, Project Manager
ABWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-012
52-013

eRAI Tracking Nos. 4099 and 4286
Enclosure:
Request for Additional Information

cc: William Mookhoek
Scot Stephens

S. Head

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NAME	RKellner	SWilliams	ERoach	MEudy	GWunder
DATE	1/14/10	1/12/10	1/14/10	1/28/10	1/20/10

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

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Request for Additional Information No. 4099 Revision 3

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 12.02 - Radiation Sources
Application Section: 12.2**

QUESTIONS for Health Physics Branch (CHPB)

12.02-17

For compliance with the provisions of EPA's environmental radiation standards in 40 CFR 190, as specified in 10 CFR 20.1301(e):

The Total Body Dose listed under Units 3 and 4 (ABWR) for Liquid Pathway Doses in Table 12.2-30 should be two times the calculated value for one unit of $2.63E-4$ mrem, to represent the dose from both uranium fuel cycle operations cited in the table. The dose from Table 12.2-29 lists $2.63E-4$ mrem as the Total Body Dose from one unit, or one uranium fuel cycle operation. The staff requests that the applicant revise this table accordingly.

The Thyroid Dose listed under Units 3 and 4 (ABWR) for Liquid Pathway Doses should be two times the calculated value for one unit of $2.03E-4$ mrem to represent the dose from both uranium fuel cycle operations cited in the table. The dose from Table 12.02-7-2 lists $2.03E-4$ mrem as the Maximum Exposed Individual (MEI) thyroid dose for one unit, or one uranium fuel cycle operation. The staff requests that the applicant revise this table accordingly.

Enclosure

Request for Additional Information No. 4286 Revision 3

**South Texas Project Units 3 and 4
South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
SRP Section: 12.03-12.04 - Radiation Protection Design Features
Application Section: 12.3**

QUESTIONS for Health Physics Branch (CHPB)

12.03-12.04-15

In FSAR Section 12.3.7.3, the following information is provided to address COL License Information Item 12.8:

“The information demonstrating that the plant meets the criticality accident monitoring requirements of 10CFR70.24 will be provided as an amendment to the FSAR in accordance with 10 CFR 50.71(e), or an exemption from this 10 CFR 70.24 requirement will be requested, at least six months prior to fuel load (COM 12.3-1).”

A similar statement is included in COM 12.3-1 contained in the Commitments (Attachment 3) of the STP Combined License Application (letter ABR-AE-07000004).

It is the staff position that before a Part 52 COL license can be issued, the applicant must either provide the information demonstrating that the plant meets the criticality accident monitoring requirements of 10CFR70.24, or have an approved exemption from the 10 CFR 70.24 requirements.

Accordingly, the staff requests that the applicant provide the following additional information concerning Criticality Accident Monitoring for STP 3 & 4:

- 1) Provide the information demonstrating that each unit meets the criticality accident monitoring requirements of 10CFR70.24; or, have an approved exemption from the requirements of 10 CFR 70.24.
- 2) Provide a markup of the proposed FSAR revision in the response accordingly.