

April 23, 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. 337 RELATED TO
SRP SECTION 12.02 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

-2-

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. 4492
Enclosure:
Request for Additional Information

cc: William Mookhoek
Scot Stephens

S. Head

-2-

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NRO-002

OFFICE	CHPB/TR	CHPB/BC	NGE2/PM	NGE2/L-PM
NAME	RKellner	ERoach	MEudy	GWunder
DATE	3/11/10	3/11/10	4/23/10	4/2/10

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

OFFICIAL RECORD COPY

Request for Additional Information No. 4492 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)

12.02-18

In the response to RAI 11.02-7 (Letter U7-C-STP-NRC-090219, ADAMS Document Number ML100050183), STP provided additional information concerning the maximum expected radioactivity concentration, radioactivity inventory, and external dose rates for the STP 3 and 4 Condensate Storage Tanks (CST), as well as additional information about CST design features to mitigate releases and the spread of contamination. The response discussion included the statement; "The MUWC System contains lines that are used to transfer condensate quality water between the CST and systems in the Radwaste Building, Turbine Building and Reactor Building. All of the piping is routed in trenches or tunnels (there is no buried pipe). These trenches and tunnels provide the capability to identify and collect any leakage from the lines handling CST water and to transfer this water to the LWMS for processing." However, the response did not include a proposed COL FSAR revision to; 1) include the CST as a radiation source in Chapter 12, 2) include information concerning a tank containing radioactive material being located outdoors, or 3) include the CST design feature information about CST piping being routed in trenches or tunnels.

In order to ensure that radiation sources associated with STP 3 & 4 are adequately characterized in the COL FSAR, and to demonstrate compliance with 10 CFR 20.1201, 20.1301, 20.1302, and 20.1406, the staff requests that the applicant provide the following additional information concerning the Condensate Storage Tank:

1. Revise Chapter 12, Tables 12.2-5a, 12.2-5b, and 12.2-5c of the STP 3 & 4 COL FSAR identifying the CST as a radiation source, including source geometry and shielding information.
2. Revise Chapter 12 of the STP 3 & 4 COL FSAR to include the CST radioactive source term information provided in the above referenced response letter.
3. Revise Chapter 12 of the STP 3 & 4 COL FSAR to include the CST design feature information about CST piping being routed in trenches or tunnels, with leak collection and return to the LWMS, that was provided in the above referenced response letter.
4. Revise the applicable Chapter 12 STP 3 & 4 COL FSAR drawings to identify the location of the CST, including identifying the tank as a radiation source.
5. Provide additional information in the STP 3 & 4 COL FSAR concerning the design features of the dike that will surround the CST to prevent runoff. For example, will it be earthen, concrete, lined, routing of tank leakage piping, specific volume held by the installed dike, etc.
6. Provide additional information in the STP 3 & 4 COL FSAR concerning any planned additional radiation protection control requirements, or provisions, for control and monitoring of radioactive materials or radioactive tanks located outdoors.
7. Provide a markup of the proposed FSAR revision in the response.

Enclosure