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January 6, 2010  
U7-C-STP-NRC-100004

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
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South Texas Project  
Units 3 and 4  
Docket Nos. 52-012 and 52-013  
Response to Request for Additional Information

Attached is the response to the NRC staff question included in Request for Additional Information (RAI) letter number 298 related to Combined License Application (COLA) Part 2, Tier 2, Section 9.1. This submittal completes the response to this RAI letter.

The attachment to this letter addresses the response to RAI 09.01.01-2.

There are no new commitments in this letter.

If you have any questions, please contact me at (361) 972-7136, or Bill Mookhoek at (361) 972-7274.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 1/6/10

Scott Head  
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South Texas Project Units 3 & 4

jaa

Attachment:

RAI 09.01.01-2 Response

DO91  
NRO

cc: w/o attachment except\*  
(paper copy)

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**RAI 09.01.01-2****QUESTION:**

As noted in RAI 2558 question 09.01.01-1, DCD Sections 9.1.6.1 and 9.1.6.3 require the COL applicant to provide the NRC a confirmatory criticality analysis for the inadvertent placement of a fuel assembly in other than the prescribed locations for new and spent fuel storage. In response, STP states that these confirmatory criticality analyses will be included in ITAAC 2.5.6.2 along with other items.

The staff does not agree that a future analysis as part of an ITAAC fulfills the requirements of ABWR COL License Information Items 9.1 and 9.2 (DCD Sections 9.1.6.1 and 9.1.6.3). Provide the appropriate confirmatory criticality analyses for NRC staff review.

**RESPONSE:**

ITAAC 2.5.6.2 requires a criticality analysis for new and spent fuel racks. The criticality analysis for the inadvertent placement of a fuel assembly in other than the prescribed location is an inherent part of ITAAC 2.5.6.2 and cannot be performed without performing the initial criticality analysis required by ITAAC 2.5.6.2.

Regulatory Guide (RG) 1.206 Section C.III.4.3 discusses "Combined License Information Items that Cannot Be Resolved Before the Issuance of a License." It states one situation that could support issuance of the COL before the complete resolution of a COL information item. That situation is if the COL information is found to be completely redundant to an ITAAC from the referenced certified design that will be included in the COL. The background discussion in Draft ISG-015 further states that the COL applicant should justify why that item cannot be completed prior to issuance of the license.

DCD Section 9.1.1.1.1 states:

*"The new-fuel storage racks are purchased equipment. The purchase specification for these racks will require the vendor to provide the information requested in Question 430.180 on criticality analysis for the inadvertent placement of a fuel assembly in other than prescribed locations."*

DCD Section 9.1.2.3.1 also states:

*"The spent-fuel storage racks are purchased equipment. The purchase specification for the spent-fuel storage racks will require the vendor to provide the information requested in Question 430.190 on criticality analysis of the spent-fuel storage, including the uncertainty [sic] value and associated probability and confidence level for the  $k_{eff}$  value."*

In general, it is not necessary to develop procurement specifications for issuance of the COL.

The information requested by the NRC Staff in this RAI (criticality analysis) cannot be completed at this time because the new and spent fuel racks have yet to be purchased and the

design has not been completed. The design parameters, including physical rack details, are essential to preparation of the requested analysis.

COL License Information Items 9.1 and 9.3 (DCD Subsections 9.1.6.1 and 9.1.6.3) have been revised in a standard supplement to STP 3&4 FSAR and included in COLA Revision 3 by providing details of what the analysis will document as part of the ITAAC. This information is being provided to the vendor, and closure of the COL Information Item through ITAAC will be subject to the NRC's construction inspection program.

Requiring that the criticality analysis, and therefore the referenced ITAAC, be completed prior to issuance of a COL would be inconsistent with NRC regulations in 10 CFR 52.103 which state that the ITAAC must be complete prior to fuel load, and RG 1.206, which also indicates that ITAAC do not need to be completed prior to issuance of a COL.

No COLA change is required as a result of this RAI response.