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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 380 related to SRP Section 3.9.4. The attachment provides the response to RAI question 03.09.04-1.

The response does not require a change to the COLA.

There are no 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 8/15/11

Scott Head
Manager, Regulatory Affairs
South Texas Project Units 3 & 4

rhs

Attachment: RAI 03.09.04-1

DOG
NRC
STI 32915775

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

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RAI 03.09.04-1**QUESTION**

10 CFR 52.73(b) states, "The Commission will require, before granting a combined license that references a standard design certification, that information normally contained in certain procurement specifications and construction and installation specifications be completed and available for audit if the information is necessary for the Commission to make its safety determinations, including the determination that the application is consistent with the certification information."

During the April 4, 2011 and April 20, 2011 audits held to review procurement specification, the NRC staff found that the loads for the FMCRDM were not available. This was identified as an open item for the audit. As a result of discussions held to address this open item, staff understands that the following sections from the DCD are no longer valid for STP Units 3 and 4:

- Section 3.9.4.3, which states that the CRD system components are evaluated analytically and the design loading conditions are as given in Tables 3.9-1 and 3.9-2;
- Section 3.9.1.3.2, which states that the output of FMCRD01 is used in the dynamic analysis of both ASME Code and non-Code parts;
- Section 3D.2.1, which addresses the FMCRD01.

The FMCRD01 program is not available for use and as a result, the CRDM loads are going to be developed by the vendor using tests. Justify these changes from the design and methodology called out in the DCD.

The STP application claimed no departures from the DCD (Sections 3.9.4 and 3.9.1 and Appendix 3D are all incorporated by reference) for the CRDM design or for computer programs to be used in completing the component and piping designs. However, based on the above and observations made during the review of the vibration monitoring program, the CRDM design has changed from that described in DCD Section 3.9.4. There are two examples of computer programs required by the DCD to be used that are not available to the applicant (FMCRD01) or have been used, but not called out in the DCD (ACSTIC). Are there other changes that should be made to these sections as a result of the CRDM design changes or in response to unavailability of computer codes called out in the DCD or additional codes used that are not called out in Appendix 3D? Provide a complete description and revisions to the DCD to allow the staff to make its safety finding.

RESPONSE:

The open item mentioned in the question concerns the loads specified in the draft Owner-provided Design Specification for the FMCRDs. The Design Specification states that the scram loads on the FMCRD are bounded by the Design Pressure, and provides the Design Pressure. The Design Specification also discusses Certificate Holder-conducted testing of the loads on the FMCRD, without mentioning the use of FMCRD01. The type of computations/testing to be conducted by the Certificate Holder will be determined before the Design Specification is finalized and the Design Report is issued. At that time, the need for any revisions to design and licensing documentation will be ascertained. This is consistent with DCD Sec. 3.9.1.1 and ASME III NCA-2142.2. While including the bounding pressure in the Design Specification assures that the FMCRD will meet applicable requirements, omitting discussion of the output from FMCRD01 led to the question about whether there has been a design change that constitutes a departure from the ABWR DCD.

As noted by the NRC question, DCD section 3.9.1.3.2 states that the output of the computer program FMCRD01 is used in the dynamic analysis of parts of the FMCRD, and NINA does not currently have access to FMCRD01. Although Toshiba has access to an equivalent computer program, the adoption of an alternative to the use of FMCRD01 is under consideration as a potential design change that would be implemented after issuance of COLs for STP 3&4. If a decision is made to pursue such a change, the potential change will be evaluated in accordance with established project processes to evaluate the potential licensing impacts of proposed design changes. These processes assure that, if required by NRC regulations, a license amendment request will be submitted, and if no amendment is necessary, any required changes to the FSAR or other documents will be made in accordance with applicable requirements. The procedures and instructions that control such processes were made available to the NRC for review during the audits referenced in the NRC question.

Control of the potential alternative to use of the output of FMCRD01 as a potential design change for implementation after COL issuance is consistent with the Interim Staff Guidance on Finalizing Licensing-basis Information (DC/COL-ISG-011). DC/COL-ISG-011 states that applicants may finalize licensing-basis information at a point during the licensing review, a so-called freeze-point, and control potential changes to the licensing-basis information during and following the NRC review of the COL application. The potential adoption of an alternative to the use of the output from FMCRD01 is properly controlled in accordance with this process because the potential change:

- does not involve correction of a significant error in the COL application;
- is not needed to ensure compliance with NRC regulations;
- is not needed to support other licensing-basis documents;
- is not a significant technical correction of the COLA; and
- is not needed to address a significant vulnerability identified by a PRA or any other study.

In summary, the CRDM design has not changed from that described in DCD section 3.9.4, and there is no need to make any change to the COLA with respect to the use of the output from FMCRD01.

NINA has not identified any additional computer codes that are required to be addressed in Appendix 3D prior to COL issuance, consistent with ISG-11.

No COLA changes are required as a result of this response.