



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

February 14, 2012

LICENSEE: STP Nuclear Operating Company

FACILITY: South Texas Project

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON  
JANUARY 31, 2012, BETWEEN THE U.S. NUCLEAR REGULATORY  
COMMISSION AND STP NUCLEAR OPERATING COMPANY, CONCERNING  
REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE SOUTH  
TEXAS PROJECT LICENSE RENEWAL APPLICATION

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of STP Nuclear Operating Company held a telephone conference call on January 31, 2012, to discuss and clarify the applicant's response to the staff's requests for information (ML11140A015). The telephone conference call was useful in clarifying the needs for follow-up requests for additional information.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the clarifications that were discussed with the applicant, including a brief description of the status of the items.

The applicant had an opportunity to comment on this summary.

A handwritten signature in black ink, appearing to read "Tam Tran", is positioned above the typed name.

Tam Tran, Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosures:  
As stated

cc w/encls: Listserv

TELEPHONE CONFERENCE CALL  
SOUTH TEXAS PROJECT  
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS  
JANUARY 31, 2012

**PARTICIPANTS**

Tam Tran  
Jerry Dozier  
Arden Aldridge  
Ken Taplett  
Steve Short  
Robert Schmidt  
Donald Macleod

**AFFILIATIONS**

U.S. Nuclear Regulatory Commission (NRC)  
NRC  
South Texas Project (STP)  
STP  
Pacific Northwest National Laboratory (PNNL)  
PNNL  
ERIN Engineering

REQUESTS FOR ADDITIONAL CLARIFICATION  
LICENSE RENEWAL APPLICATION  
JANUARY 31, 2012

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of STP Nuclear Operating Company (STPNOC) held a telephone conference call on January 31, 2012, to discuss and clarify the applicant's request for additional information (RAI) response (ML12030A081).

**License renewal application (LRA) supplement is needed for clarification purpose.**

(1) Background information:

The staff's assessment of Severe Accident Mitigation Alternative (SAMA) 4 scenario listed in the January 19, 2012, response (ML12030A081), is that it is potentially cost-beneficial if the staff takes into account the applicant's August 23, 2011, response (ML11250A067), to the original May 31, 2011, RAI 2.e (ML11140A015), regarding non-conservative source terms (the applicant did not address this in the revised analysis of identified SAMAs in the January 19, 2012, RAI response (ML12030A081)). RAI 2.e is listed below:

RAI 2.e:

ER Section F.3.6 describes the selection of the representative accident sequence/source terms for the major release categories. The one example discussed was that an accident sequence with a moderate frequency and severe release characteristics would be selected over an accident sequence with a relatively high frequency and a minor radionuclide release. From the information provided, none of the selected representative sequences (for those categories where multiple source term results are provided) follow this conservative example. For major Release Categories II and III, the selected sequences are not those with the most severe release characteristics. While the information provided in ER Table F.3-8 indicates that the representative sequences are appropriate for the base case, this is not necessarily true for a SAMA case where the Level 2 end-state distribution would be different from the base case. For example, if a SAMA primarily impacted sequences which have low reactor pressure vessel (RPV) failure pressure then the frequency of end-states R07SU and R11 U would be reduced. Since these end-states have higher release fractions (and most likely, higher dose-risk and offsite economic cost risk per event) than the representative sequence chosen, the benefit could be larger than that assessed using the representative release fractions.

If the source term chosen for a release category is not the most severe of the significantly contributing end-states, the benefit could be underestimated for any SAMA which primarily impacts an end-state with a higher release fraction. For example, SAMA 4 impacts only the end-state VSEQ (interfacing system loss of coolant accident (LOCA)) portion of Release Category I. It is not clear that end-state VSEQ has a less severe release than the ISGTR end-state, which was chosen as representative for Release Category I. Release fractions for Inter-System LOCA (ISLOCA) are usually greater than that given for ISGTR. The STP IPE (Table 4.8.3-4) gives interfacing system Cs and I release fractions from 0.15

to 0.4 depending on the methodology. Similarly for SAMA 10, which impacts steam generator tube rupture (SGTR) sequences, the removal of these sequences from Release Category III will have a more significant impact since the release fractions for SGTR are three orders of magnitude greater than those for the representative sequence. Provide further support for the selection of the representative sequences and their adequacy for the SAMA analysis.

Clarification needed:

The staff requested the applicant to provide further justification for why it is not cost-beneficial based on further review and breakdown of its benefit analysis.

(2) Background information:

Table 5 of the applicant's January 19, 2012, response (ML12030A081) indicates, for the essential cooling water (ECW) pumps with HCLPFs (high confidence of a low probability of failure) of 0.48g, the credible failure mode of the pumps is the seismic restraint bolts for the support of the pump casing. However, the applicant did not evaluate this plant modification as a SAMA candidate and it appears to the staff that a SAMA to replace the existing bolts with stronger bolts might be a much less expensive SAMA than the "seismic safe" system that the applicant evaluated as a cost beneficial alternative, which could prove to be a cost beneficial lower cost mitigation alternative.

Clarification needed:

The staff requests the applicant to provide a discussion of the potential for cost beneficial lower cost mitigation alternatives for this ECW pumps failure mode (e.g., replacing the ECW seismic restraint bolts).

**Discussion:**

During the conference call, the applicant confirmed understanding of the request and the action of providing additional clarification in February 2012, as an LRA supplement. Hence, there is no need for a follow-up RAI.

February 14, 2012

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**/RA/**

Tam Tran, Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosures:  
As stated

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**ADAMS Accession No.:** ML12033A134

OFFICE	LA:DLR	PM:RPB2:DLR	BC:RPB2:DLR	PM:RPB2:DLR
NAME	IKing	TTran	DWrona	TTran
DATE	2/10/12	2/14/12	2/14/12	2/14/12

OFFICIAL RECORD COPY

Memorandum to STP Nuclear Operating Company from T. Tran dated February 14, 2012

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