Nuclear Operating Company

South Texas Project Nuclear Operating Company P.O. Box 289 Wadsworth, Texas 77483

March 8, 2005
NOC-AE-05001862
STI: 31850630
10CFR50.54(f)

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
90-Day Response to Generic Letter 2004-02: Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors

Reference: Letter, Thomas J. Jordan to NRC Document Control Desk, "Request for Additional Information Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors," dated November 11, 2004 (NOC-AE-04001793)

Attachment 1 provides the South Texas Project's (STP) 90-day response to Generic Letter 2004-02. Additionally, Attachment 2 provides the status of STP's candidate operator action review detailed in Table 2 of the referenced letter.

The only commitments in this letter are summarized in Attachment 3.

If there are any questions regarding this response, please contact Scott Head at (361) 972-7136 or me at (361) 972-7902.

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

Executed on March 8, 2005

T. J. Jordan
Vice President, Engineering

kjt/

Attachments
1. 90-Day Response to Generic Letter 2004-02
2. Status of Candidate Operator Actions
3. List of Commitments

A116

cc:
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90-Day Response to Generic Letter 2004-02: Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors

NRC Requested Information 1

Within 90 days of the date of the safety evaluation report providing the guidance for performing the requested evaluation, addressees are requested to provide information regarding their planned actions and schedule to complete the requested evaluation. The information should include the following:

NRC Requested Information 1(a):

[Provide] A description of the methodology that is used or will be used to analyze the susceptibility of the ECCS and CSS recirculation functions for your reactor to the adverse effects identified in this generic letter of post-accident debris blockage and operation with debris-laden fluids identified in this generic letter. Provide the completion date of the analysis that will be performed.

STP Response 1(a):

STP plans to analyze the susceptibility of the emergency core cooling system (ECCS) and containment spray system (CSS) recirculation functions to the adverse effects of post-accident debris blockage and operation with debris-laden fluids identified in Generic Letter 2004-02. The methodology used will conform to the intent of NEI 04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology." The methodology will be supplemented with plant specific licensing basis information and contractor specific proprietary information as appropriate with the current state of knowledge. This analysis is scheduled to be completed no later than September 1, 2005.

Additionally, the current licensing basis for STP, as well as plant-specific features, may identify exceptions and/or refinements to be taken to the guidance given in NEI 04-07 prior to the September 1, 2005 submittal. If any exceptions or refinements to the guidance are identified during the performance of the analyses, supplementary letters to this response will be submitted to the NRC as soon as practical.

NRC Requested Information 1(b):

[Provide] A statement of whether you plan to perform a containment walkdown surveillance in support of the analysis of the susceptibility of the ECCS and CSS recirculation functions to the adverse effects of debris blockage identified in this generic letter. Provide justification if no containment walkdown surveillance will be performed. If a containment walkdown surveillance will be performed, state the planned methodology to be used and the planned completion date.

STP Response 1(b):

Containment walkdowns have been completed at STP to support the analysis of debris blockage as identified in the Generic Letter. The walkdowns were performed by STP personnel using the guidelines provided in NEI 02-01, "Condition Assessment Guidelines, Debris Sources inside Containment," Revision 1.

Additional containment walkdowns to support the analysis of sump performance as identified in the generic letter will be performed during the 1RE12 refueling outage scheduled during the Spring of 2005. The walkdown guidelines provided in NEI 02-01 Revision 1 will be utilized.

Status of Candidate Operator Actions (COA) Under Consideration

COA #	TITLE	Evaluation
A1a	Candidate Operator Action to Secure One Spray Pump	After verifying containment conditions, actions to secure Containment Spray (CS) Pumps are already under consideration per the existing STP Loss of Emergency Coolant Recirculation procedure. COA # A1a, would stop the containment spray pump prior to transfer to recirculation from the sump.
	STATUS: The STP design has three trains of containment spray pumps. STP is currently evaluating actions to remove CS pumps from service earlier in an event. This is being done as part of the final design evaluation and not being considered as an interim compensatory action.	
A1b	Operator Action to Secure Both Spray Pumps	See response above. Additionally, COA # A1b would secure all CS pumps prior to recirculation conditions.
	STATUS: With verification of containment cooling, the action to remove all CS pumps from service is taken during recirculation by the existing STP EOP.	
A6	Inject More Than One RWST Volume From a Refilled RWST or by Bypassing the RWST	This action is already incorporated by the existing EOP procedure.
	STATUS: STP is evaluating additional methods of RWST makeup and evaluating containment flooding concerns associated with this action.	

Status of Candidate Operator Actions (COA) Under Consideration

COA #	TITLE	Evaluation
A8	Provide Guidance on Symptoms and Identification of Containment Sump Blockage	STP is currently training operators on symptoms of containment sump blockage and evaluating additional instrumentation needed to provide positive indication of sump blockage.
	STATUS: Training is ongoing. Evaluation of additional instrumentation needed to provide positive indication of sump blockage is ongoing for the final sump modification. No new instrumentation for the interim is being considered.	
A9	Develop Contingency Actions in Response to: Containment Sump Blockage, Loss of Suction, and Cavitation	Contingency actions would be based on the completion of the evaluations for COA A8. If additional instrumentation were installed, then the STP EOP would be modified to include this indication for evaluation of sump conditions. Until the extent of plant modifications is established, operators will continue to be trained for response to the existing plant configuration indication for sump conditions.
	STATUS: Training based on the existing configuration is ongoing. No additional contingency actions are contemplated for the interim.	

List of Commitments

The following table identifies those actions committed to by the STP Nuclear Operating Company in this document. Any statements in this submittal with the exception of those in the table below are provided for information purposes and are not considered commitments. Please direct questions regarding these commitments to Joe Loya at (361) 972-7922.

Commitment	Due Date	Condition Report
1. STP plans to analyze the susceptibility of the emergency core cooling system (ECCS) and containment spray system (CSS) recirculation functions to the adverse effects of post-accident debris blockage and operation with debris-laden fluids identified in the Generic Letter 2004-02. The methodology used will conform to the intent of NEI 04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology." The methodology will be supplemented with plant specific licensing basis information and contractor specific proprietary information as appropriate with the current state of knowledge. This analysis is scheduled to be completed no later than September 1, 2005. Additionally, the current licensing basis for STP, as well as plant-specific features, may identify exceptions and/or refinements to be taken to the guidance given in NEI 04-07 prior to the September 1, 2005 submittal. If any exceptions or refinements to the guidance are identified during the performance of the analyses, supplementary letters to this response will be submitted to the NRC as soon as practical.	09/01/05	04-12498-2
2. Additional containment walkdowns to support the analysis of sump performance as identified in the generic letter will be performed during the 1RE12 refueling outage scheduled during the Spring of 2005. The walkdown guidelines provided in NEI 02-01 Revision 1 will be utilized.	04/30/05	04-12498-4