



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

April 24, 2003  
NOC-AE-03001521  
10CFR50

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

South Texas Project  
Units 1 & 2  
Docket Nos. STN 50-498, STN 50-499  
Commitment to Investigate and Repair  
Bottom Mounted Instrumentation Penetration Indications

On April 12, 2003, STP Unit 1 was in cold shutdown and making preparations to restart from its eleventh refueling outage (IRE11). While performing a routine inspection of the reactor coolant system (RCS) and associated systems as part of the STP boric acid control program, a system engineer found what appeared to be very small amounts of boric acid residue on two bottom mounted instrumentation (BMI) penetrations on the reactor pressure vessel. STP immediately began an aggressive effort to determine the origin of the residue, including radio-isotopic and chemical analyses using both on-site and off-site resources. STP apprised the NRC Resident Inspector of the condition. On April 13, 2003, STP formally notified the NRC in accordance with 10CFR50.72, of the potential for RCS pressure boundary leakage.

The investigation results thus far indicate primary reactor coolant as the likely source of the residue. STP is continuing to aggressively investigate the condition to determine the root cause, identify non-destructive examination (NDE) methods, and evaluate repair options.

STP believes the early detection of the BMI indications demonstrates the effectiveness of the visual inspections performed in the STP boric acid control program.

On April 17, 2003, STP and the NRC held a conference call in which STP briefed the NRC about the status of the investigation and STP's plans for further action. As discussed during that call, STP is committed to an effort that includes the following elements: 1) investigation of the root cause, 2) determination of the extent of the condition, 3) identification and implementation of effective corrective actions, and 4) briefing the NRC prior to restarting the unit. The details of these elements are described more fully below.

1. **Root Cause:** STP will investigate the condition using adequate inspection and non-destructive examination techniques, including metallographic analysis, as necessary to determine the most likely cause of the apparent reactor coolant leak. At a minimum, techniques will include qualified visual inspections in combination with eddy current testing and/or ultrasonic testing. STP expects to continue to use industry experts in addition to its own highly qualified and experienced staff to validate the root cause determination.
2. **Extent of Condition:** STP will evaluate the information from the investigation and determine the likely effect on the other BMI penetrations, including those in Unit 2. STP will also apply available NDE to determine if there has been any wastage associated with the condition.
3. **Effective Corrective Action:** STP will repair the conditions that caused the residue and assure that the pressure boundary integrity is in accordance with the ASME Code as required by 10CFR50.55a. STP will implement additional corrective actions, as required, to address the long-term management of potential BMI Alloy 600 issues.
4. **NRC Briefing :** STP will meet with the NRC to review the results of the investigation of the root cause, evaluation of extent of condition and corrective action prior to restarting the unit.

STP also recognizes the importance of keeping the NRC informed about progress on the investigation and resolution of the condition, and will support conference calls and meetings with the staff, and provide supporting technical information as needed. Commitments made by STP in the resolution of this issue will be documented by submittals on the STP docket.

Please call me at (361) 972-8757 or Gary Parkey at (361) 972-7800 if you have any questions about these commitments.



J. J. Sheppard  
President and  
Chief Executive Officer

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