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

June 2, 2005
NOC-AE-05001896
10CFR50

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

South Texas Project
Unit 1
Docket No. STN 50-498
60-Day Response to NRC Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity"

Reference: Letter dated November 4, 2003 from T. J. Jordan, STP to NRC Document Control Desk, "Response to NRC Bulletin 2003-02, "Leakage From Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity," (NOC-AE-03001586)

In accordance with the referenced correspondence, attached is the South Texas Project Nuclear Operating Company (STPNOC) Unit 1, 60-Day Response to NRC Bulletin 2003-02, "Leakage From Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity" dated August 21, 2003. This response fulfills a STPNOC commitment in the original bulletin response to inform the NRC of inspection results for the STP reactor vessel lower head penetrations.

There are no commitments identified in this letter. If you should have any questions regarding this submittal, please contact me at 361-972-7902 or Mr. Tim Powell at 361-972- 7566.

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

Executed on: June 2, 2005

T. J. Jordan
Vice President of Engineering

jch/jal

Attachment: Unit 1 60-day Response to Bulletin 2003-02

A109

STI: 31890718

cc:
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60 Day Response to NRC Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity"

Below is the South Texas Project Nuclear Operating Company (STPNOC) Unit 1 60-day response to Nuclear Regulatory Commission (NRC) Bulletin 2003-02, "Leakage From Reactor Pressure Vessel Lower Head Penetrations And Reactor Coolant Pressure Boundary Integrity," dated August 21, 2003.

Bulletin 2003-02 Request:

Within 60 days of plant restart following the next inspection of the RPV lower head penetrations, the subject PWR addressees should submit to the NRC a summary of the inspections performed, the extent of the inspections, the methods used, a description of the as-found condition of the lower head, any findings of relevant indications of through-wall leakage, and a summary of the disposition of any findings of boric acid deposits and any corrective actions taken as a result of indications found.

STPNOC Response:

STPNOC completed the Unit 1 12th Refueling Outage (1RE12) on April 16, 2005 and submits the information below describing the results of the STP Unit 1 reactor pressure vessel (RPV) lower head inspection.

Inspection Performed

The lower head and bottom mounted instrumentation (BMI) penetrations of the STP Unit 1 RPV were visually inspected on March 11, 2005. This inspection was governed by NRC Generic Letter 88-05 and STPNOC "RCS Pressure Boundary Inspection for Boric Acid Leaks" procedure. No indications of through-wall leakage were observed.

Extent of the Inspections

The lower head of the reactor is surrounded by an insulating box structure with no insulation directly in contact with the lower head. The inspection of all 58 BMI penetrations in the vessel lower head was accomplished by removing three of twelve equidistantly spaced inspection panels forming the periphery of the insulating structure. Performance of a local visual inspection of the exterior of the tubing from three directions, 120° apart, provided assurance that the entire annulus area between each tube and the vessel is viewed. In addition, an observation of the general area (including the insulation beneath the vessel) was made for signs of leakage or boric acid residue.

Methods Used

Visual VT-2 inspection methods were used. Personnel performing inspections are certified in accordance with ASME Section XI IWA 2300 and Code Case N546. With the inspection panels removed, the view to the vessel bottom head and BMI tubes is unobstructed. The maximum viewing distance to the center tubes is about 5 feet. Still photographs were obtained from all three inspection panels.

Description of the As-Found Condition of the Lower Head

The lower head and BMI penetrations were generally clean. No indications of primary system leakage or introduction of foreign material was noted. General corrosion of a superficial nature was observed at some head locations due to variances in coating application. Comparison of this benign corrosion condition to that observed in previous outages revealed no discernable changes.

Findings of Relevant Indications of Through-Wall Leakage

No indications of through-wall leakage were observed.

Summary of the Disposition of Any Findings of Boric Acid Deposits and Any Corrective Actions Taken as a Result of Indications Found

No boric acid deposits were identified. The head condition was documented using digital photography.