

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

April 16, 2008 NOC-AE-08002290 File No.: G25 10 CFR 50.54(f)

U. S. Nuclear Regulatory Commission Attention: Document Control Desk One White Flint North 11555 Rockville Pike Rockville, MD 20852-2738

## South Texas Project

Units 1 and 2

Docket Nos. STN 50-498, STN 50-499 Response to Request for Additional Information on Generic Letter 2007-01, "Inaccessible or Underground Power Cable Failures that Disable Accident <u>Mitigation Systems or Cause Plant Transients" (TAC Nos. MD4382, MD4383)</u>

Reference:

Letter from Charles T. Bowman to NRC Document Control Desk dated June 21, 2007, "Response to NRC Generic Letter 2007-01, Inaccessible or Underground Power Cable Failures that Disable Accident Mitigation Systems or Cause Plant Transients" (NOC-AE-07002176)

In the referenced letter, the STP Nuclear Operating Company (STPNOC) submitted information in response to Nuclear Regulatory Commission (NRC) Generic Letter 2007-01. This submittal is in response to a request for additional information issued March 20, 2008.

There are no new commitments in this submittal.

If you have any questions, please contact Mr. Scott Head at (361) 972-7136 or me at (361) 972-7454.

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

Executed on <u>April 16, 2008</u> Date

Charles T. Bowman General Manager, Oversight

tck/ Attachment: STPNOC Response to Request for Additional Information

AI27 NRR

STI: 32297354

cc: (paper copy)

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## STPNOC RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

# SOUTH TEXAS PROJECT, UNITS 1 AND 2 – REQUEST FOR ADDITIONAL INFORMATION RE: RESPONSE TO GENERIC LETTER 2007-01, "INACCESSIBLE OR UNDERGROUND POWER CABLE FAILURES THAT DISABLE ACCIDENT MITIGATION SYSTEMS OR CAUSE PLANT TRANSIENTS" (TAC NOS. MD4382 AND MD4383)

## NRC RAI 1

The U.S. Nuclear Regulatory Commission (NRC) staff has received from STP Nuclear Operating Company (STPNOC, the licensee) the cable failure history for South Texas Project Electric Generating Station, Units 1 and 2 (STP), in response to Generic Letter (GL) 2007-01, "Inaccessible or Underground Power Cable Failures that Disable Accident Mitigation Systems or Cause Plant Transients." During its review, you found no failures of power cables within the scope of Title 10 of the Code of Federal Regulations (10 CFR), Section 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" (Maintenance Rule (MR)). Please confirm that this history includes cable failures that occurred prior to July 10, 1996.

Each licensee must implement the regulations in the MR no later than July 10, 1996, in accordance with 10 CFR 50.65(c). Although some licensees have interpreted the MR to not require inclusion of events prior to 1996, the regulations in 10 CFR 50.65(a)(1) mandate that licensees consider previous failures, including events prior to 1996. If STPNOC's response to GL 2007-01 excluded cable failures that occurred prior to July 10, 1996, please provide the data for these failures as requested in GL 2007-01.

### STP Response

The electronic review for cable failures included the history before July 10, 1996.

## NRC RAI 2

You stated that STPNOC has no specific program for monitoring the condition of underground cables. However, STPNOC has proactively replaced and continues to replace cables based on low Megger readings recorded during motor and load center maintenance activities, prior to cable grounds developing into significant operational challenges. If STPNOC's response excluded cable replacements for cables that were within the scope of the GL, please provide the data for each cable as requested in GL 2007-01.

#### **STP** Response

STPNOC's response did not exclude cables within the scope of the generic letter. STPNOC replaced the cables as a proactive measure due to the inability to effectively test unshielded low voltage power cable installed in a ductbank that uses PVC conduit. STPNOC considers the

cables to have been operable and believes they would have lasted the life of the plant with occasional heat conditioning.

The only cables that were replaced were those used as 480V feeder cables to Class 1E Motor Control Centers (MCCs) used to power Essential Cooling Water System components. The replaced cables were 1/C 750 kcmil, <u>2 per phase</u>, Hypalon jacketed with Ethylene propylene rubber (EPR) insulation, 601V-2000V thickness. Replaced cable vintage was approximately 1980 through 1984 and manufactured by Okonite and BIW. The cables were routed from the Electrical Auxiliary Building, Class 1E Load Center through the underground to the Essential Cooling Water Intake Structure, Motor Control Center. The cables were normally energized.

#### Summary Cable Information

- 1. Manufacturers: Okonite and BIW
- 2. Type: 1/C 750 kcmil, <u>2 per phase</u>, Hypalon jacketed with Ethylene propylene rubber (EPR) insulation
- 3. Date Manufactured: 1980-1984
- 4. Service: 480 V MCC Feeder for ECW components Trains A, B, and C both Units
- 5. Voltage Class: 601V-2000V
- 6. Years of Service: 16-20 years depending on the Unit/Train
- 7. Root Cause of Failure: Cables did not fail. Were replaced due to degrading insulation resistance
- 8. Cable numbers:

A1PMAAC1LC, A1PMAAC1LD B1PMABC1LC, B1PMABC1LD C1PMACC1LC, C1PMACC1LD A2PMAAC1LC, A2PMAAC1LD B2PMABC1LC, B2PMABC1LD C2PMACC1LC, C2PMACC1LD