GULF STATES UTILITIES COMPANY
POST OFFICE BOX 2951 · BEAUMONT, TEXAS 77704
AREA CODE 713 838-6631

October 1, 1984
RBG-19074
File Nos. G9.5, G9.25.1.1

Mr. Robert D. Martin, Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV, Office of Inspection and Enforcement
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011



Dear Mr. Martin

River Bend Station Unit 1
Docket No. 50-458
Final Report/DR-154

On August 31, 1984, GSU notified Region IV by telephone that it had determined DR-154 to be reportable under 10CFR50.55(e). This deficiency concerns the rework and repair of high-voltage cable terminations. The attachment to this letter is GSU's final 30-day written report pursuant to 10CFR50.55(e) with regard to this deficiency.

Sincerely,

J. E. Booker

J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

JEB/PJD/lp

cc: Director of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC Resident Inspector-Site

INPO



IE-27
1/1

ATTACHMENT

October 1, 1984
RBG-19074

DR-154 Repair and Rework of High-Voltage Terminations

Background and Description of the Problem

The problem involves the rework and repair of high-voltage cable terminations. The condition was identified by Construction personnel when preparing to make up high-voltage terminations for motor leads on Circulating Water Pump 1-C. It was found that the primary cable insulation had been cut to a depth over half the thickness of the insulation. Due to the depth of the cuts, Stone & Webster Engineering Corporation (SWEC) conducted a random inspection to determine whether the condition existed elswhere and, as a result, found similar deficiencies. These deficiencies were documented in Nonconformance and Disposition Report (N&D) Nos. 4118, 4227, 4364, and 4748 and have since been dispositioned.

One of the cables indentified in N&D No. 4748 was a Category I system cable, and SWEC subsequently issued Engineering and Design Coordination Report (E&DCR) No. C-22,747A to initiate and implement a 5- and 15-kV power cable termination and splice sampling inspection program to confirm the adequacy of existing terminations and splices. As a result of the sampling/inspection program, two additional Category I system cables were identified as deficient and requiring rework. Cable 1ENSARH301, which feeds 1EJS*LDC2A from 1ENS*SWG1A was identified in N&D No. 5431, and cable 1ENSBBH300, which feeds 1EJS*LDC1B from 1ENS*SWG1B, were identified in the inspection program implemented by E&DCR No. C-22,747A.

Safety Implications

The cuts in the insulation of the cable may have led to abnormal stress on the affected cables. This could result in a random phase-to-ground fault, causing the supply breaker to trip. Loads fed from 1EJS*LDC2A (such as containment unit coolers) and 1EHS*MCC16B (standby cooling tower fans) would be rendered unavailable. The electrical integrity of these Category I cables was deficient. Had this condition remained uncorrected, and had there been a failure in the redundant cables, the safety of operation of the plant could have been adversely affected.

Corrective Action

Cable 1ENSARH301 has been repaired in accordance with N&D No. 5431 disposition details. Cable 1ENSBBH308 has been repaired in accordance with Rework Control Form (RCF) No. E50299, and cable 1ENSBBH300 has been repaired in accordance with RCF No. E0868.

It has been determined that the deficiencies were caused by a combination of poor workmanship, use of improper tools, and improper interpretation of the manufacturer's installation instructions. Specification No. 248.000 has been revised to append the repair procedure for 5- and 15-kV cable terminations. Construction personnel have been retrained, and terminations can be made only by those retrained individuals. Field Quality Control has revised its cable termination checklist and will witness all terminations.