GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775

AREA CODE 504 635-6094 346-8651

July 3, 1985
RBG- 21453
File Nos. G9.5, G9.25.1.1

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

Dear Mr. Martin:

River Bend Station - Unit 1
Docket No. 50-458
Final Report/DR-313

On July 3, 1985, GSU notified Region IV by telephone that it had determined DR-313 concerning excessive temperatures inside the excitation cabinets for the standby diesel generators supplied by Transamerica Delaval, Incorporated to be reportable under 10CFR50.55(e). The attachment to this letter is GSU's final 30-day written report pursuant to 10CFR50.55(e)(3) with regard to this deficiency.

Sincerely,

J. E. Booker

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

PJD
JEB/PJD/amg

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

NRC Resident Inspector-Site

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ATTACHMENT

July 3, 1985
RBG- 21453

DR-313/EXCESSIVE TEMPERATURE IN EXCITATION CABINETS

Background and Description of the Problem

The deficiency concerns excessive temperatures inside the excitation cabinets for the standby diesel generators supplied by Transamerica Delaval, Incorporated. The TDI diesel generator owner's group identified the problem in its DR/QR Report for River Bend Station (RBS) Component 03-650B, 1984. The problem involves the linear reactors that supply current to the exciter exceeding the temperature rating of the coil insulation unless additional ventilation is provided. Subsequently, TDI informed the NRC on May 17, 1985, pursuant to 10CFR21, of the same problem. The problem affects excitation cabinets 1EGE*CAB01A and 1EGE*CAB01B associated with diesel generators 1EGS*EG1A and 1EGS*EG1B, respectively.

Overheating in the excitation cabinets could cause premature aging and possible damage to components contained therein. The excitation system ensures proper voltage control and regulation of the generator output.

Although TDI does not explicitly state the cause of the problem in its letter of May 17, 1985, the probable cause of the problem is improper accounting of heat released from the various electrical and electronics components inside the cabinet, coupled with inadequate ventilation of the cabinet. Some components were furnished by NEI Peeples-Electric Products, Inc., for installation in the excitation cabinet manufactured by RTE-Delta.

Safety Implication

Loss of the diesel generator excitation system due to the subject postulated damage to components resulting from excessive temperatures inside the cabinet would cause the unavailability of its associated Class 1E electrical distribution system. Without a properly functioning excitation system, either the generator output voltage would fluctuate beyond its design range, resulting in voltages at the safety loads beyond their qualified operating voltage ranges, or the generator output voltage would collapse, resulting in loss of that safety-related division's electrical system. In either case, safety-related equipment required for the safe operations of the plant would be adversely affected.

Corrective Action

As a result of the owner's group report, Engineering and Design Coordination Report (E&DCR) Nos. C-15,087, C-15,104, and C-15,122 were issued to provide a source of ventilation to the subject panels, procure necessary material, and implement the required modification. E&DCR No. C-15,087 subsequently was superseded by P-13,293, while C-15,226 and C-15,241 were issued to complete the design modification.