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June 25, 1992

ELV-03825
000449

Docket No. 50-425

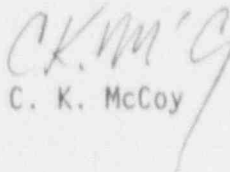
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
SPECIAL REPORT
NONVALID DIESEL GENERATOR FAILURE

In accordance with the requirements of the Vogtle Electric Generating Plant Technical Specifications, sections 4.8.1.1.3 and 6.8.2, Georgia Power Company hereby submits the enclosed revised Special Report concerning what is now considered to be a nonvalid diesel generator failure. The original report (ELV-03478, dated March 2, 1992) classified the subject failure as a valid failure. Subsequent investigation revealed the true cause of the failure, and it was determined that this problem would not affect the emergency operation of the diesel generator. This revised report describes the failure mechanism and reclassifies the subject failure, and several previous failures which can be attributed to the same cause, as nonvalid.

Sincerely,


C. K. McCoy

CKM/NJS

Enclosure: Special Report 2-92-1, Revision 1

xc: Georgia Power Company
Mr. W. B. Shipman
Mr. M. Sheibani
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U. S. Nuclear Regulatory Commission
Mr. S. D. Ebnetter, Regional Administrator
Mr. D. S. Hood, Licensing Project Manager, NRR
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

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VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
TECHNICAL SPECIFICATION SPECIAL REPORT 2-92-1, REVISION 1
DIESEL GENERATOR 2B NONVALID FAILURE

A. REQUIREMENT FOR REPORT

This report is required in accordance with Technical Specification (TS) 4.8.1.1.3, which requires all diesel generator (DG) failures, valid or invalid, to be reported to the Commission in a Special Report pursuant to 6.8.2.

B. DESCRIPTION OF EVENT

On February 5, 1992 at 0945 EST, DG 2B was started for a monthly surveillance test per TS requirements. At 1000 EST, the DG output breaker was closed in order to connect the DG to the grid, but reactive power indicated negative 4200 kVARs and the output breaker was opened. The DG was declared inoperable at 1002 EST.

A brief investigation found no other abnormalities. Based on this and previous similar events (LER 50-425/1991-03) when negative reactive power had been intermittently indicated, personnel decided to continue the planned testing. The output breaker was again closed and reactive power indicated normal, positive values. With personnel monitoring performance parameters, DG 2B operated while tied to the grid for over 2 hours before the output breaker was reopened. At 1227 EST, the output breaker was again closed so that personnel could monitor breaker operation. It was reopened at 1229 EST, with no anomalies noted, and the DG was stopped at 1234 EST. Following a review of the testing, DG 2B was declared operable at 1706 EST. During this period, DG 2B was inoperable for 7 hours and 4 minutes.

After extensive research and review, a test was conducted on April 1, 1992, to determine if the failure symptoms could be reproduced by paralleling the generator to the grid at approximately 50 volts below the system voltage. During this test, reactive power went to negative 2000 kVARs after the initial breaker closure. Reactive power was then adjusted to approximately 2600 kVARs negative when the low excitation alarm was annunciated and regulator control was lost. Reactive power went to approximately 4100 kVARs negative and could not be adjusted using the voltage control switch. Again, the output breaker was opened and voltage regulation returned to normal.

A review of the test data concluded that, due to the sizing of the power potential transformers and the current transformers, there exists a small area within the leading kVAR range of the generator capability curve in which the voltage regulator will not function. Because this condition can only occur when the generator is operating in parallel with the grid, it does not affect DG response to emergency conditions. Procedural controls have been established to limit operation of the generator in this range of the curve while testing is being performed.

VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
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C. SUMMARY

Because this condition can only occur when the generator is operating in parallel with the grid, it does not affect DG response to emergency conditions. Therefore, the February 5, 1992, event has been reclassified from a valid failure to a nonvalid failure per Regulatory Guide 1.10d, section C.2.e.

Additionally, three previous DG failures can be attributed to the same cause and, since the cause does not affect emergency operation, they have also been reclassified as nonvalid failures. One failure occurred on DG 2A on February 1, 1990, and is described in Special Report 2-90-2 (ELV-01353, dated February 19, 1990). The other two failures occurred on January 29, 1991 (one each for DG 2A and DG 2B) and are described in LER 50-425/1991-003, Revision 1. Finally, a review of DG start classifications has resulted in another reclassification. On December 16, 1988, DG 2B was started for a 24-hour engineered safety feature actuation system test. This start has been reclassified from a nonvalid test to a valid test in order to be consistent with similar starts.

Per these reclassifications, as of May 25, 1992, there have been no valid failures in the last 20 valid tests of DG 2B and a total of 1 valid failure in 80 valid tests. Also, there have been no valid failures in the last 20 valid tests of DG 2A and 2 valid failures in the last 100 valid tests. Following the February 5, 1992, failure, the test frequency of DG 2B had been increased to once per 7 days in accordance with TS table 4.8-1. However, since the DG 2B test frequency had already returned to a once per 31 day cycle prior to the reclassification of these failures to nonvalid failures, the current testing frequency of once per 31 days has not been affected. The test frequency for DG 2A also remains at once per 31 days.