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March 21, 1984

NUCLEAR PRODUCTION DEPARTMENT

U.S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 2900
Atlanta, Georgia 30303

Attention: Mr. J. P. O'Reilly, Regional Administrator

Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-13
File 0260/L-835.0
Special Report 84-003/1 - Update
Report - Diesel Generator
Trip
AECM-84/0174

This is an update to a previous report submitted on February 13, 1984, for the event described below:

At 1210 on January 12, 1984, while the plant was in Cold Shutdown, Standby Diesel Generator 12 tripped on reverse power while running in parallel with offsite power during a retest following maintenance. A control rectifier diode in the voltage regulator circuit malfunctioned causing the diesel generator output voltage to drop. Since the diesel generator was running parallel with offsite power, this voltage drop caused the generator to trip on reverse power. In the emergency operating mode the reverse power trip is bypassed. In addition, the diesel generator would not be in parallel with offsite power, so a voltage drop would not have caused a reverse power condition. Therefore, this is reported pursuant to Regulatory Guide 1.108 and Technical Specification 4.8.1.1.3 as an invalid failure. At the time there were two valid failures in the last 100 valid tests. The testing frequency was once per 7 days. The voltage regulator circuit was switched to the standby excitation control rectifier and the retest continued.

The control rectifier diode which malfunctioned was tested statically and no shorts or other problems were found. It was then tested dynamically by running the diesel generator with that excitation

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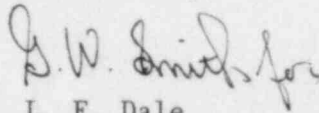
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control rectifier in use and it alarmed twice without causing the trip. An intermittent short was suspected, so the control rectifier was replaced. This is a final report.

Yours truly,



L. F. Dale
Manager of Nuclear Services

EBS/SHH:lm

cc: Mr. J. B. Richard
Mr. R. B. McGehee
Mr. T. B. Conner
Mr. G. B. Taylor

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