

GENERAL ELECTRIC

NUCLEAR POWER

SYSTEMS DIVISION

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MFN 066-82
CAC 48-82

May 12, 1982

U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Washington, DC 20555

Attention: Richard C. DeYoung

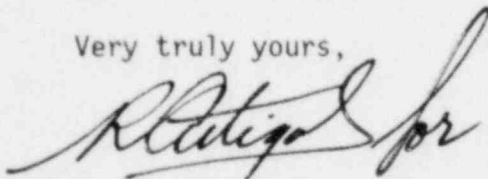
Gentlemen:

SUBJECT: 10CFR PART 21, REPORTABLE CONDITION
HPCS DIESEL GENERATOR AIR START SYSTEM

This letter advises the NRC of a reportable defect per 10CFR Part 21 as reported to W. Mills of your office by E. W. Giambalvo, Acting Manager of Safety Evaluation Programs on May 11, 1982. Attached is the report of the defect in the HPCS Diesel Generator Air Start System. It is believed this concern is unique to Grand Gulf. Ongoing investigation of requisition plants will confirm this. No operating plants are affected.

General Electric has informed the Mississippi Power & Light Company of the defect and has advised them of the corrective action to be taken by GE.

Very truly yours,



Glenn G. Sherwood, Manager
Nuclear Safety and Licensing Operation

GGs:sem/B050313

cc: R. C. DeYoung, NRC (two extra copies)
J. P. O'Reilly, NRC Region II
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REPORTABLE CONDITION

HPCS DIESEL GENERATOR AIR START SYSTEM

I. Description of Deficiency

The reportable defect is non-Seismic Category 1 air pressure sensing lines that could break during a seismic break event and provide a leak path to the atmosphere for all air start storage tanks in the General Electric supplied HPCS diesel generator air start system. The HPCS diesel generator (Division III) air start system for Grand Gulf has a piping configuration similar to the A/E supplied Division I and II diesel generator air start systems on which this defect was reported by Mississippi Power and Light under 10CFR50.55(e).

The diesel generator air start system for each division has four air start storage tanks which are connected by a common 1/4-inch OD sensing line to the air compressor unloading devices and to compressor control pressure switches. This sensing line is not Seismic Category 1 piping. In a postulated seismic event the sensing line could break in multiple locations, providing a leak path to the atmosphere for all four storage tanks. Should this occur, the system capability to supply enough air for the required five starts is jeopardized since the same postulated seismic event could also render the non-1E air compressors inoperable.

II. Analysis of Safety Impact

This condition is reportable because a common type of defect has been identified for all the Grand Gulf diesel generator air start systems. Since a seismic event could be postulated to render all D-Gs unable to start, all ECCS pumps and other Engineering Safety Features (ESF) powered by the D-Gs must be assumed to be nonfunctional. This could clearly degrade the overall system capability to achieve safe shutdown. It is believed this concern is unique to Grand Gulf. Further investigation will confirm this.

III. Correction of Defect

The correction of this defect consists of repiping the air compressor unloading device sensing lines to preclude this situation. A subsequent sensing line break will only bleed down the piping upstream of the storage tank inlet check valves (one check valve on each tank inlet) and will not bleed down any of the air storage tanks.

Also, a seismically qualified compressor control pressure switch will be mounted directly on each storage tank. This arrangement will preclude the use of non-Seismic Category 1 piping to feed these switches. This concern is unique to Grand Gulf.