

LICENSEE EVENT REPORT

CONTROL BLOCK: 1 6 1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 GAEIH1 2 0000000000000000 3 4 1111 4 5

REPORT SOURCE 01 L 6 050000321 7 032280 8 041480 9

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

02 | During normal surveillance on 3/22/80 Diesel Generator 1R43-S001C failed
03 | to start and reach rated speed in \leq 12 seconds. During a maintenance
04 | investigation on 4/5/80, the Diesel Generator again failed to start. The
05 | Diesel Generator was declared in-op after each incident. There were no
06 | effects on public health and safety. The redundant Diesel Generators
07 | were operable. This is a repetitive occurrence and was last reported on
08 | LER 50-321/1979-101.

09 EE E B ENGINE Z Z
17 80 029 03 L 0
A Z Z Z 0000 Y Y A W290

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

10 | The cause of the start failures has been contributed to a bent shutdown
11 | solenoid operating rod in the engine governor and a failed governor boost-
12 | er servo. The bent rod caused the servo to fail. The rod and servo were
13 | replaced and the generator was returned to service. This was found during
14 | the investigation and after the failure on 4/5/80.

15 E 099 NA B Surveillance Test
16 Z Z NA NA
17 000 Z NA
18 000 NA
19 Z NA
20 N NA

8004220 72

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NARRATIVE REPORT

Georgia Power Company
Plant E. I. Hatch
Baxley, Georgia 31513

Reportable Occurrence Report No. 50-321/1980-029

During normal surveillance on 3/11/80, Diesel Generator 1R43-S001C failed to start and reach rated speed in ≤ 12 seconds. During a maintenance investigation on 4/5/80, the Diesel Generator again failed to start. The Diesel Generator was declared in-op after each incident. There were no effects on public health and safety. The redundant Diesel Generators were operable. This is a repetitive occurrence and was last reported on LER 50-321/1979-101.

Both of the start failures were due to problems found in the engine governor. After the failure on 3/22/80, the governor was exercised and the engine started satisfactorily. An extensive investigation was started to determine the cause of the multiple failures. This investigation revealed that prior to the replacement of the engine governor on 10/12/79, this Diesel Generator did not have a history of start failures. The governor was replaced due to a design change which added internal switches to allow the plant operator to know when the governor was set such that generator sync speed could not be attained.

Since the replacement of the governor this Diesel Generator has experienced five start failures. Three of these were reported on LER 50-321/1979-101 and the other two are being reported now. This investigation pointed out several possible causes that could cause a start failure. On 4/5/80, Maintenance personnel requested that the diesel be started for information purposes and then taken out of service for inspection. The diesel failed to start.

The inspection of the engine governor revealed that the shutdown solenoid operating rod was bent .015". This prevented the governor booster servo from performing it's intended function of racking the fuel control arm partially open. This would indeed cause a start failure. Additionally, this bent solenoid rod had caused a premature failure of the governor servo booster which had been installed new on 12/18/79.

The shutdown solenoid operating rod and governor booster servo were replaced. The governor start hydraulic circuit was then sequenced some fifteen times and the engine was actually started seven times. No failures in the governor hydraulic circuit occurred but it was noted that an overspeed trip micro-switch required some adjustment. This was completed and the Diesel Generator was returned to service.

It is believed now that all five of the start failures were actually due to this bent solenoid operating rod. This rod is internal to the governor assembly and this assembly had never been repaired on site. The rod could have been bent during re-conditioning at the factory or during the installation of the

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Narrative Report

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assembly in October, 1979. A upward force on the fuel rack prior to a diesel stop being re-set could bend this rod.

Unit I and Unit II Diesel Generators use this same type governor but we do not feel that there is generic implications. As in this case, normal surveillance will detect a problem of this nature on the other diesels.

All corrective action is now complete and no follow-up report will be submitted.