

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
DEFECTIVE GOULD MOTOR STARTERS
NCR'S 1971R AND 35-1
10 CFR 50.55(e)
FINAL REPORT

Description of Condition

TVA was first notified of a potential product defect by a Gould, Inc. service advice letter dated September 17, 1979. The condition concerns NEMA size 3 motor starters and contactors. This potential problem was also identified in IE Circular 79-23. The condition involves the possible seizure or binding of the carrier assembly within the support plate of the stationary contact assembly, which may cause the starter to fail to pickup when energized. This defect was attributed to a worn die which caused the inside dimension of the support legs to be undersized.

Safety Implications

Failure of a starter to operate could cause a serious safety hazard by either failure to start or to turn off a safety-related motor. This nonconformance could result in a common mode failure. These starters control the ERCW screen wash pumps at Watts Bar and failure of the pump to operate could result in a restriction of the essential raw cooling water. At Bellefonte, the potentially defective starters are used with motor-operated decay heat removal injection valves. A starter failure could result in a loss of control of the decay heat removal system.

Corrective Action

Our investigation indicates that four motor starters of this type have been located in the 480V control and auxiliary vent boards 1A1-A, 1B1-B, 2A1-A, and 2B1-B at Watts Bar Nuclear Plant. In addition, four starters of this type have also been located in the auxiliary building 480V motor control centers 1E2-A, 1E2-B, 2E2-A, and 2E2-B at Bellefonte Nuclear Plant.

Gould factory representatives have been to Watts Bar on November 14, 1979, and to Bellefonte on November 26, 1979, and have supervised the replacement of the carrier assemblies on starters in the above boards in accordance with Gould Field Quality Instruction 10.1. The starters with replaced carriers are acceptable.

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